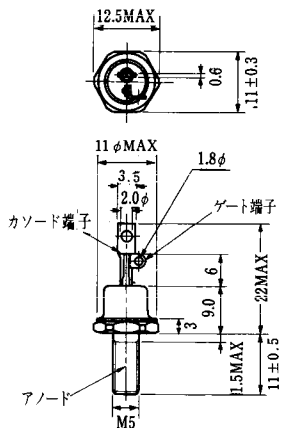


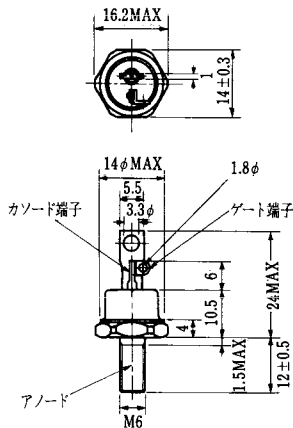
| SG700 <sup>o</sup> R, U, W, EX <sub>2</sub> 22<br>○チョップパ、インバータ用<br>○200A, 1300V-2500V |   |          |          |           | ■外形図番号 T-45 (13-51B1A) |           |  |      |     |       |                             |
|---|---|----------|----------|-----------|------------------------|-----------|--|------|-----|-------|-----------------------------|
| ■最大定格   |   |          |          |           | ■電気的特性                 |           |  |      |     |       |                             |
| 記号  | SG700R22  | SG700U22 | SG700W22 | SG700EX22 | 単位                     | 記号        | 測定条件   | Min  | Typ | Max   | 単位                          |
| $V_{RRM}$   | 15  |          |          |           | V                      | $I_{RRM}$ | $T_j=125^{\circ}\text{C}, V_D=V_{RRM}$                               |      |     | 10    | mA                          |
| $V_{DRM}$   | 1300  | 1600     | 1800     | 2500      |                        | $I_{DRM}$ | $T_j=125^{\circ}\text{C}, V_D=V_{DRM}, R_{GK}=20\Omega$              |      |     | 10    | mA                          |
| $I_{TRM}$   | 700 ( $V_D=\frac{1}{2}V_{DRM}, V_{DM}=\frac{3}{5}V_{DRM}, C_s=2\mu\text{F}, R_s=20\Omega, T_j=125^{\circ}\text{C}$ )              |          |          |           | A                      | $V_{TM}$  | $T_c=25^{\circ}\text{C}, I_{TM}=700\text{A}$                         |      |     | 2.7   | V                           |
| $I_{TRMS}$  | 200 ( $T_j=70^{\circ}\text{C}$ )  |          |          |           |                        | $V_{GT}$  | $T_c=25^{\circ}\text{C}, V_D=12\text{V}$                             | 0.75 | 1.0 | 1.0   | V                           |
| $I_{TSM}$   | 4000/4400 (50Hz/60Hz, 正弦半波1サイクル)  |          |          |           | A <sup>2</sup> S       | $I_{GT}$  | $R_L=0.5\Omega$  | 350  | 700 | 700   | mA                          |
| $I^2 \cdot t$   |   |          |          |           |                        | $V_{GD}$  | $T_c=125^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}$                    | 0.3  |     |       | V                           |
| $di/dt$   | 200 ( $I_{CP}=12\text{A}, t_r=1\mu\text{s}, V_D=\frac{1}{2}V_{DRM}, I_{TM}=700\text{A}, f=50\text{Hz}, T_j=125^{\circ}\text{C}$ ) |          |          |           | A/ $\mu\text{s}$       | $I_{GD}$  | $T_c=25^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}, I_{CP}=12\text{A}$  | 5    |     | 2.0   | mA                          |
| $I_{GFM}$   | 30 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 20%)   |          |          |           | A                      | $t_d$     | $T_c=25^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}, I_{CP}=12\text{A}$  |      |     | 6.0   | $\mu\text{s}$               |
| $P_{GFI(AV)}$   | 6   |          |          |           | W                      | $dv/dt$   | $T_j=125^{\circ}\text{C}, V_D=\frac{3}{5}V_{DRM}, V_{GK}=-2\text{V}$ | 600  |     |       | V/ $\mu\text{s}$            |
| $I_{GR(RMS)}$   | 35  |          |          |           | A                      | $I_H$     | $T_c=25^{\circ}\text{C}, R_L=0.5\Omega$                              |      | 20  |       | A                           |
| $P_{GRM}$   | 4000 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 2%)  |          |          |           | W                      | $L$       | $T_c=120^{\circ}\text{C}, I_{TM}=700\text{A}$                        |      |     | 14    |                             |
| $V_{GRM}$   | 15  |          |          |           | V                      | $t_{eq}$  | $V_D=\frac{1}{2}V_{DRM}, V_{DM}=\frac{3}{5}V_{DRM}$                  |      |     | 16    | $\mu\text{s}$               |
| $T_j$   | 125   |          |          |           | $^{\circ}\text{C}$     | $t_{out}$ | $C_s=2\mu\text{F}, R_s=20\Omega$                                     |      |     | 76    |                             |
| $T_{Hk}$  | -40~-125  |          |          |           | $^{\circ}\text{C}$     | $I_{GR}$  | $di/dt=-20\text{A}/\mu\text{s}$                                      |      | 160 | 190   | A                           |
|   |   |          |          |           |                        | $R_{th}$  | 接合-フィン間, DC  |      |     | 0.085 | $^{\circ}\text{C}/\text{W}$ |

| SG800 <sup>o</sup> R, U, W, EX <sub>1</sub> 11<br>SG800 <sup>o</sup> R, U, W, EX <sub>1</sub> 12<br>○チョップパ、インバータ用 |   |                      |                      |                        | ■外形図番号 SG800 <sup>o</sup> 11: T-44 (13-36A1A)<br>SG800 <sup>o</sup> 12: T-46 (13-36B1A) |           |  |      |     |      |                             |
|---|---|----------------------|----------------------|------------------------|---|-----------|--|------|-----|------|-----------------------------|
| ■最大定格   |   |                      |                      |                        | ■電気的特性  |           |  |      |     |      |                             |
| 記号  | SG800R11<br>SG800R12  | SG800U11<br>SG800U12 | SG800W11<br>SG800W12 | SG800EX11<br>SG800EX12 | 単位  | 記号        | 測定条件   | Min  | Typ | Max  | 単位                          |
| $V_{RRM}$   | 15  |                      |                      |                        | V   | $I_{RRM}$ | $T_j=125^{\circ}\text{C}, V_D=V_{RRM}$   |      |     | 10   | mA                          |
| $V_{DRM}$   | 1300  | 1600                 | 1800                 | 2500                   |   | $I_{DRM}$ | $T_j=125^{\circ}\text{C}, V_D=V_{DRM}, R_{GK}=20\Omega$                                      |      |     | 10   | mA                          |
| $I_{TRM}$   | 800 ( $V_D=\frac{1}{2}V_{DRM}, V_{DM}=\frac{3}{5}V_{DRM}, C_s=2\mu\text{F}, R_s=20\Omega, T_j=125^{\circ}\text{C}$ )              |                      |                      |                        | A   | $I_{GRM}$ | $T_j=125^{\circ}\text{C}, V_D=V_{GRM}$   |      |     | 10   | mA                          |
| $I_{TRMS}$  | 300 ( $T_j=70^{\circ}\text{C}$ )  |                      |                      |                        |   | $V_{TM}$  | $T_c=25^{\circ}\text{C}, I_{TM}=800\text{A}$   |      |     | 2.4  | V                           |
| $I_{TSM}$   | 5000/5500 (50Hz/60Hz, 正弦半波1サイクル)  |                      |                      |                        | A <sup>2</sup> S  | $V_{GT}$  | $T_c=25^{\circ}\text{C}, V_D=12\text{V}$   | 0.75 | 1.0 | 1.0  | V                           |
| $I^2 \cdot t$   |   |                      |                      |                        |   | $I_{GT}$  | $R_L=0.5\Omega$  | 350  | 700 | 700  | mA                          |
| $di/dt$   | 200 ( $I_{CP}=12\text{A}, t_r=1\mu\text{s}, V_D=\frac{1}{2}V_{DRM}, I_{TM}=800\text{A}, f=50\text{Hz}, T_j=125^{\circ}\text{C}$ ) |                      |                      |                        | A/ $\mu\text{s}$  | $V_{GD}$  | $T_c=125^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}$  | 0.3  |     |      | V                           |
| $I_{GFM}$   | 30 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 20%)   |                      |                      |                        | A   | $I_{GD}$  | $T_c=25^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}$   | 4    |     | 3.0  | mA                          |
| $P_{GFI(AV)}$   | 6   |                      |                      |                        | W   | $t_d$     | $T_c=25^{\circ}\text{C}, V_D=\frac{1}{2}V_{DRM}$   |      |     | 8.0  | $\mu\text{s}$               |
| $I_{GR(RMS)}$   | 35  |                      |                      |                        | A   | $t_{st}$  | $I_{TM}=800\text{A}, di/dt=200\text{A}/\mu\text{s}$<br>$I_{CP}=12\text{A}, t_r=1\mu\text{s}$ |      |     |      |                             |
| $P_{GRM}$   | 4000 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 2%)  |                      |                      |                        | W   | $dv/dt$   | $T_j=125^{\circ}\text{C}, V_D=\frac{3}{5}V_{DRM}$<br>$V_{GK}=-2\text{V}$                     | 600  |     |      | V/ $\mu\text{s}$            |
| $V_{GRM}$   | 15  |                      |                      |                        | V   | $I_H$     | $T_c=25^{\circ}\text{C}, R_L=0.5\Omega$  |      | 20  |      | A                           |
| $T_j$   | 125   |                      |                      |                        | $^{\circ}\text{C}$  | $L$       | $T_c=120^{\circ}\text{C}, I_{TM}=800\text{A}$  |      |     | 14   |                             |
| $T_{Hk}$  | -40~-125  |                      |                      |                        | $^{\circ}\text{C}$  | $t_{eq}$  | $V_D=\frac{1}{2}V_{DRM}$<br>$V_{DM}=\frac{3}{5}V_{DRM}$                                      |      |     | 16   | $\mu\text{s}$               |
|   |   |                      |                      |                        |   | $t_{out}$ | $C_s=2\mu\text{F}$<br>$R_s=20\Omega$   |      |     | 76   |                             |
|   |   |                      |                      |                        |   | $I_{GR}$  | $di/dt=-20\text{A}/\mu\text{s}$  |      | 170 | 200  | A                           |
|   |   |                      |                      |                        |   | $R_{th}$  | 接合-ケース間, DC  |      |     | 0.09 | $^{\circ}\text{C}/\text{W}$ |

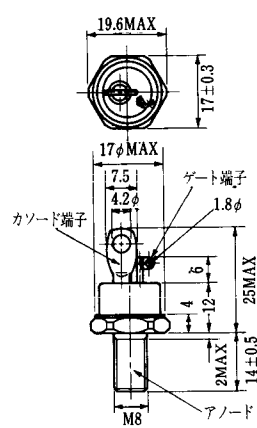
FD-1



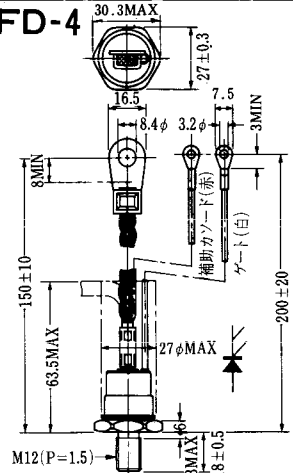
FD-2



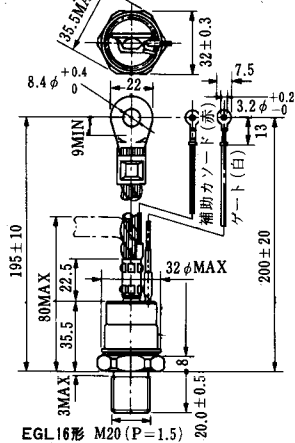
FD-3



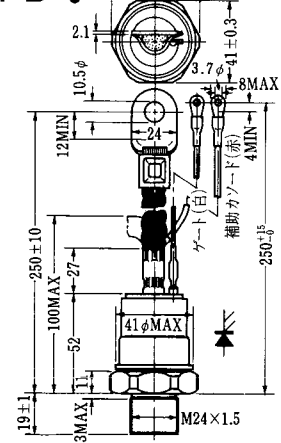
FD-4



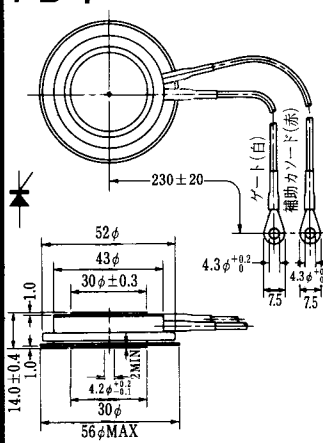
FD-5



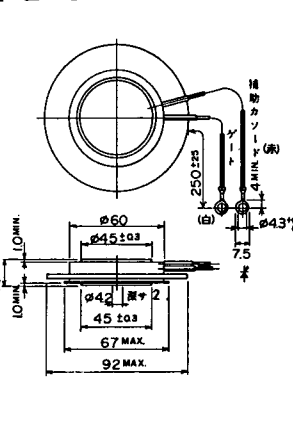
FD-6



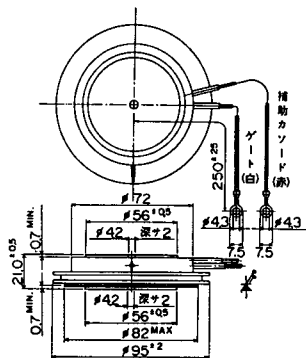
FD-7



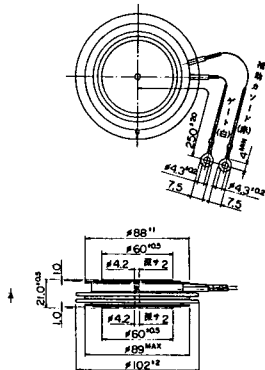
FD-8



FD-9

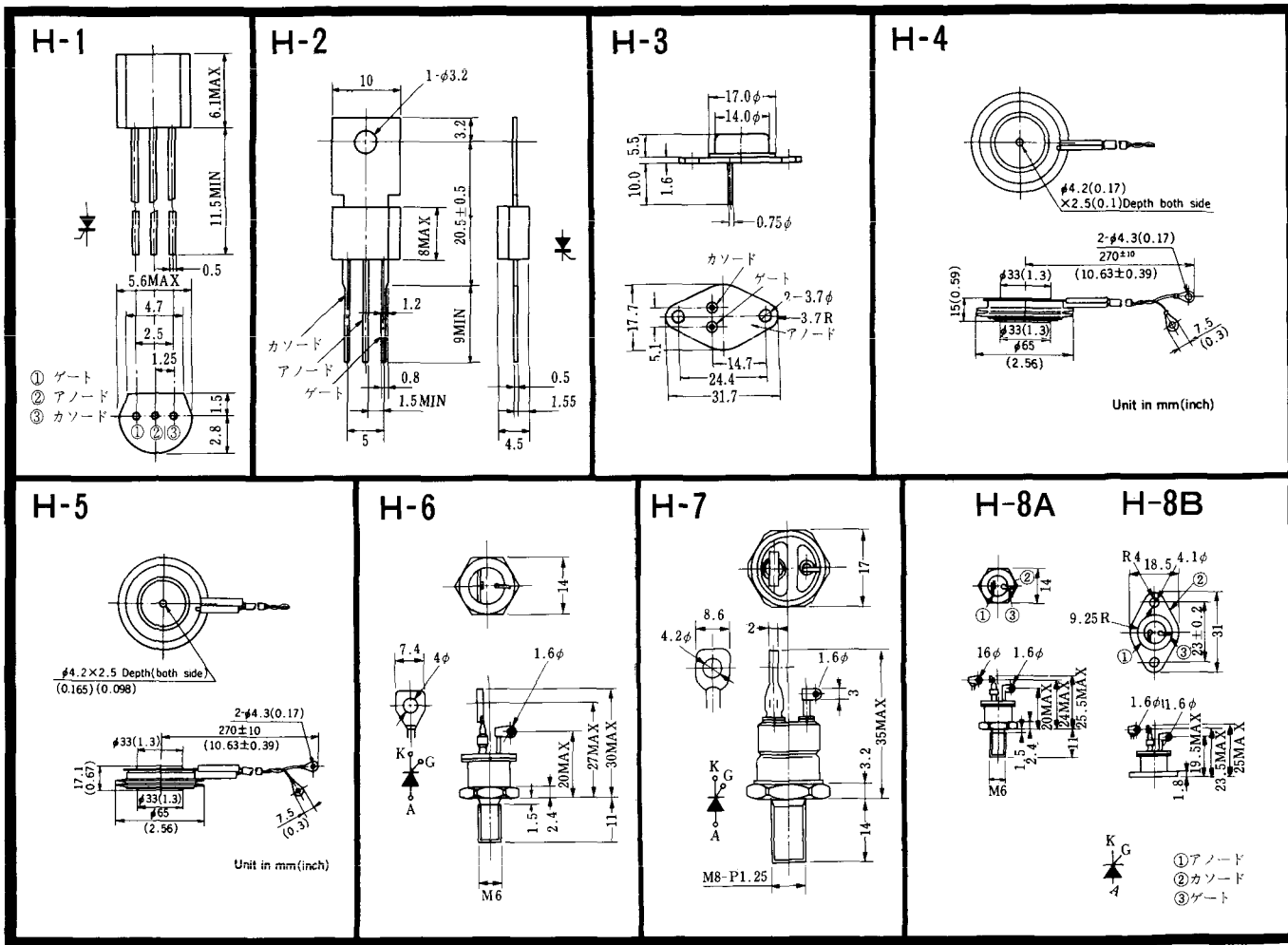


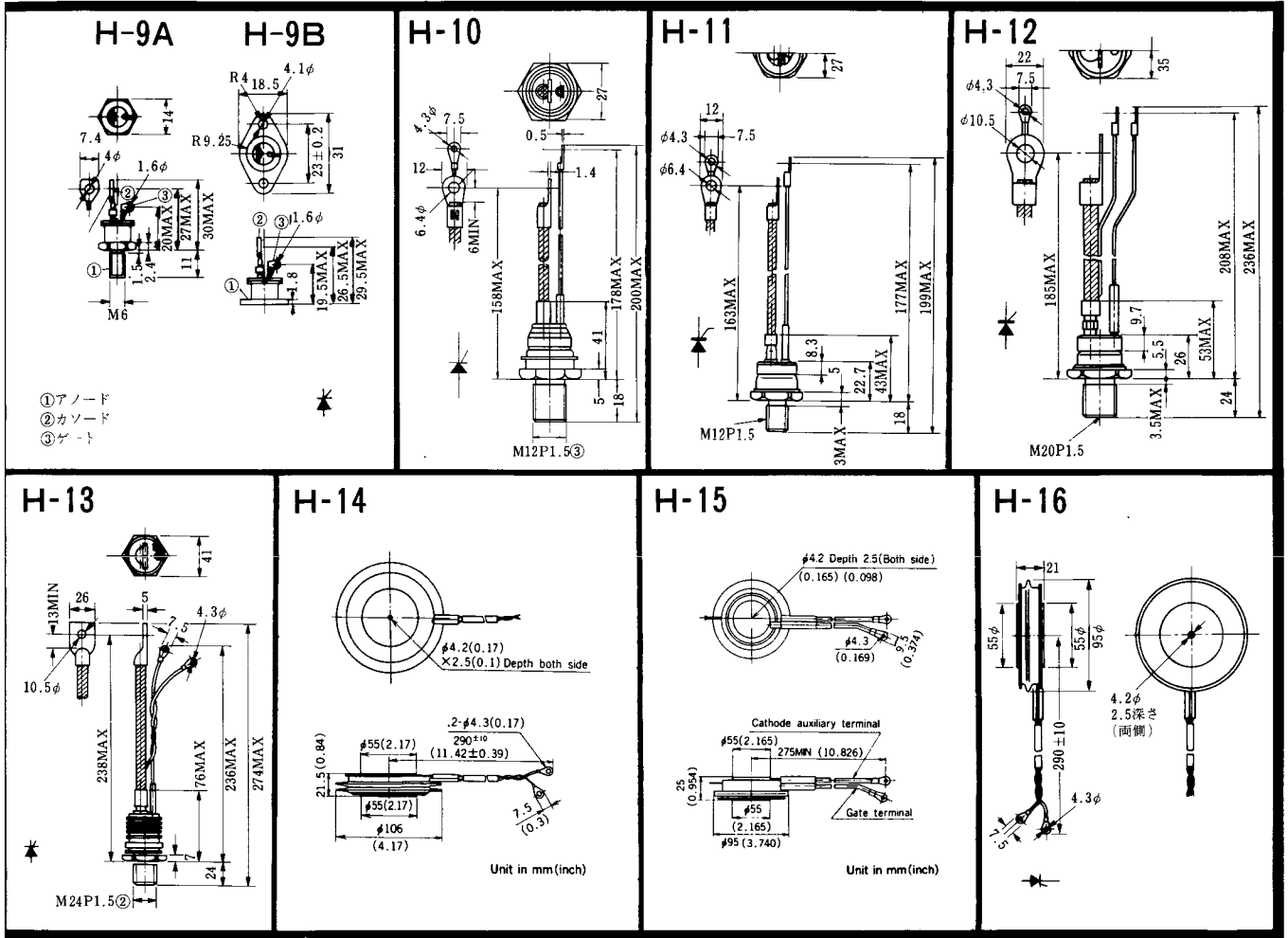
FD-10



FD-11

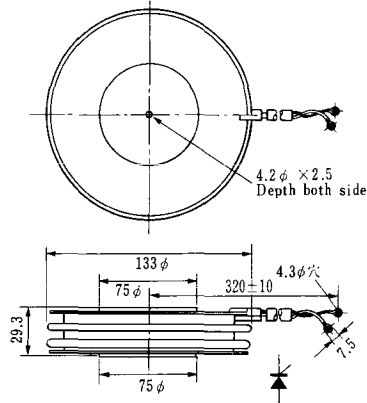
FD-12



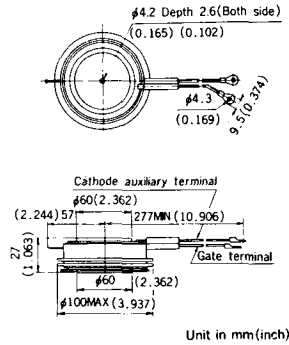


《寸法図単位：mm》

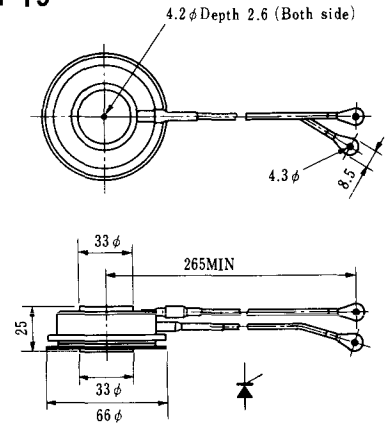
### H-17



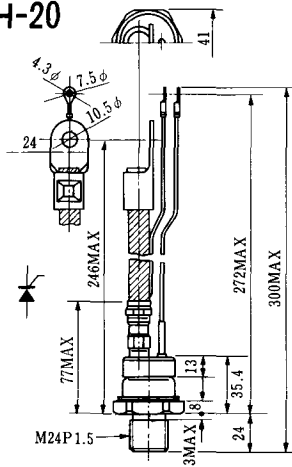
### H-18



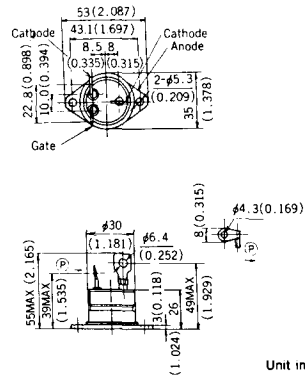
### H-19



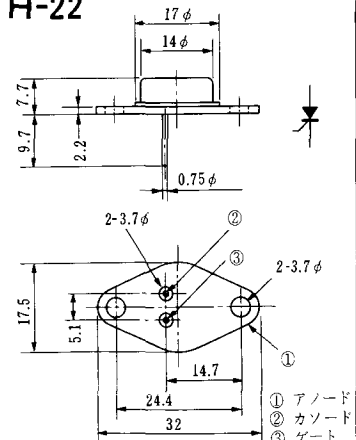
### H-20



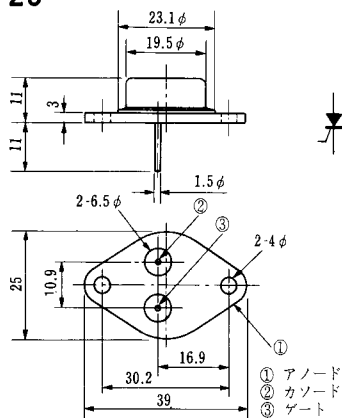
### H-21



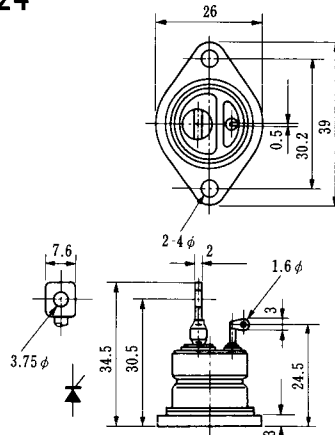
### H-22



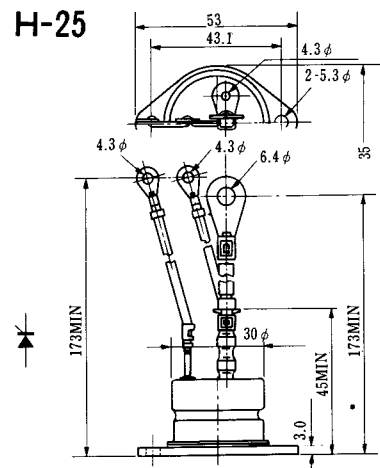
### H-23



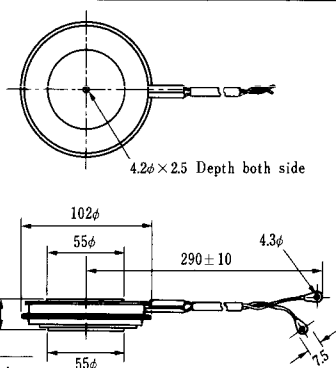
### H-24



### H-25



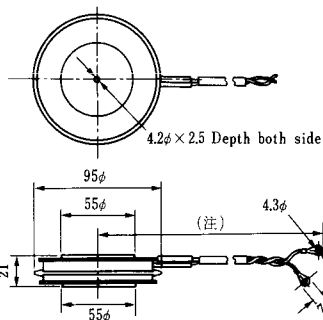
### H-26



| Type | Direction of polarity |
|------|-----------------------|
|------|-----------------------|

|      |  |
|------|--|
| CA12 |  |
|------|--|

### H-27

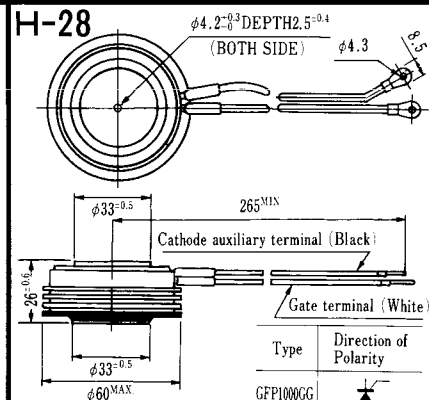


| Type | Direction of polarity |
|------|-----------------------|
|------|-----------------------|

|       |  |
|-------|--|
| CF11V |  |
|-------|--|

(注) CC11V : 400 ± 10  
CF11V : 250 ± 10

### H-28

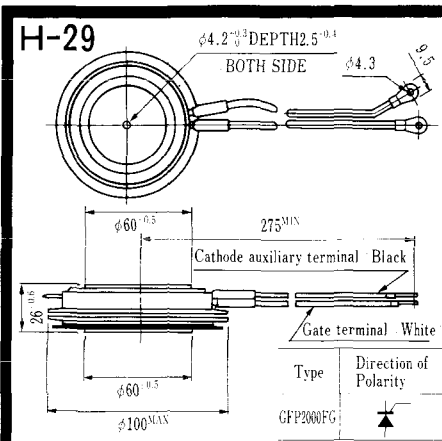


| Type | Direction of Polarity |
|------|-----------------------|
|------|-----------------------|

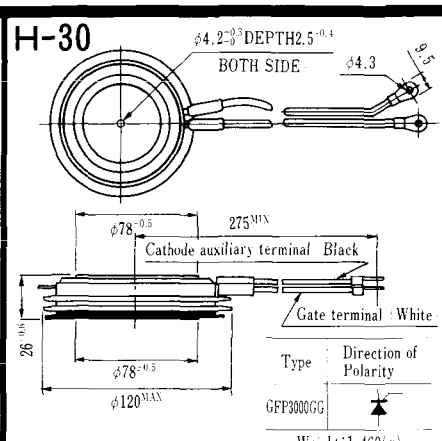
|          |  |
|----------|--|
| GFP100GG |  |
|----------|--|

Weight: 360(g)

Note : The thickness is a dimension in press at the rated mounting force.



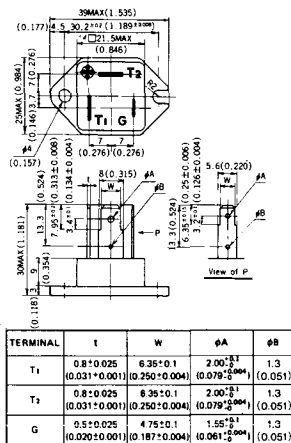
Note : The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



Note : The thickness is a dimension in press at the rated mounting force. Weight: 1,460(g)

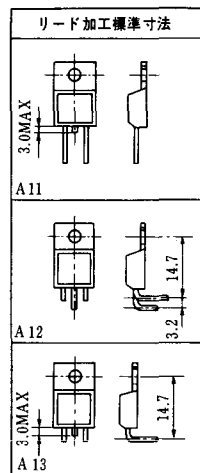
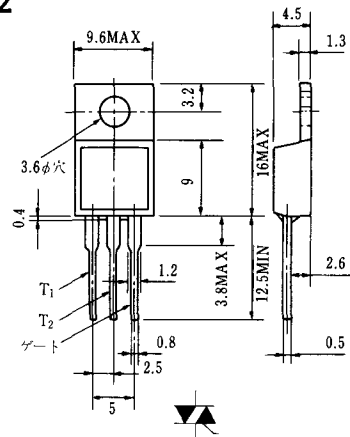


# HT-1

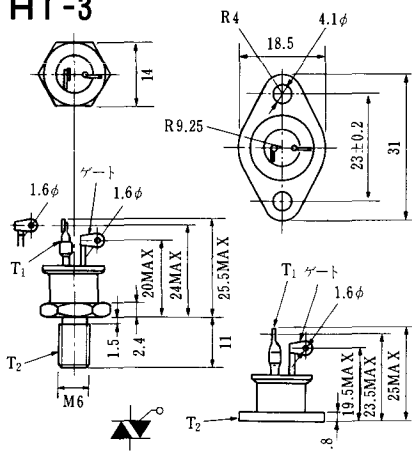


Unit in mm (inch)

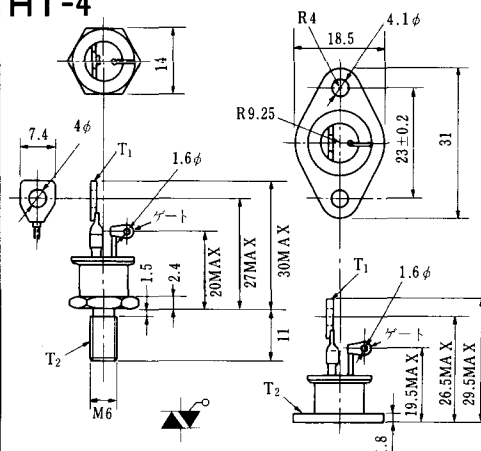
# HT-2



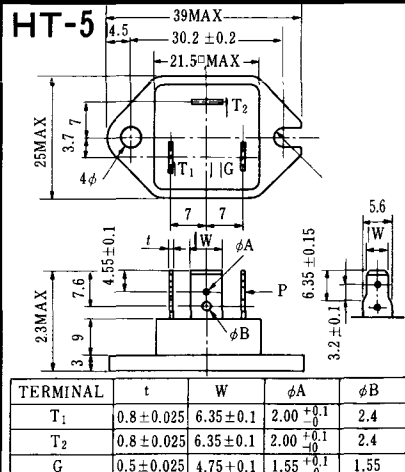
# HT-3



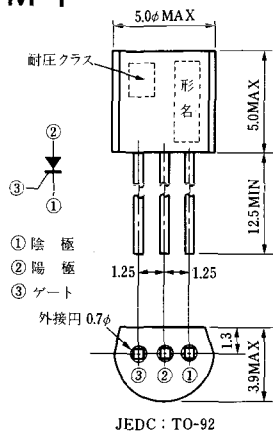
# HT-4



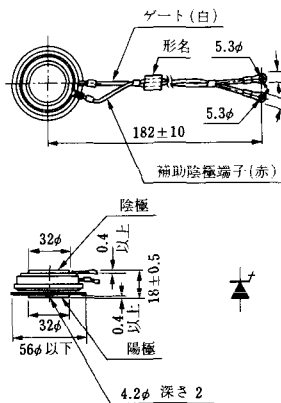
# HT-5



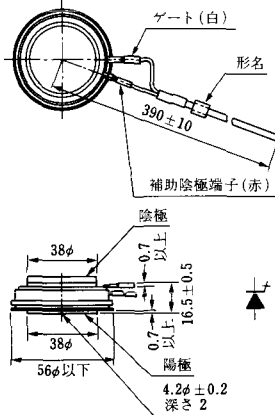
### M-1



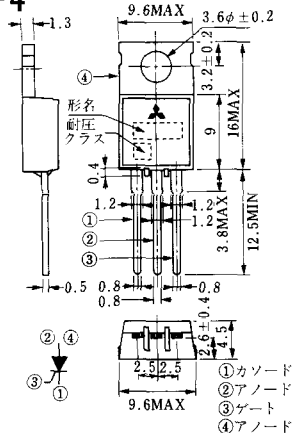
### M-2



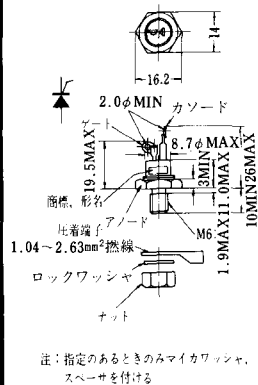
### M-3



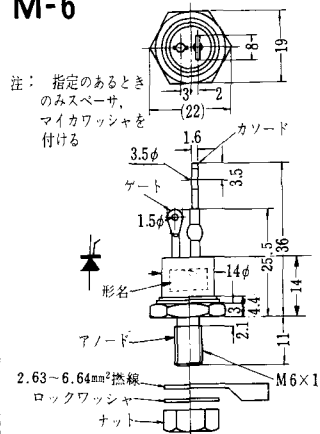
### M-4



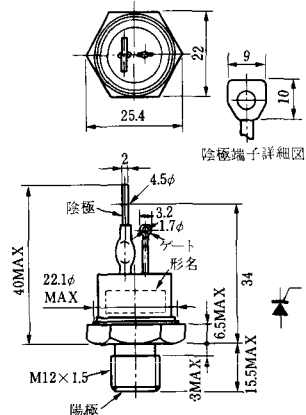
### M-5



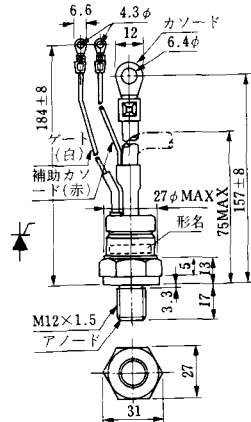
### M-6



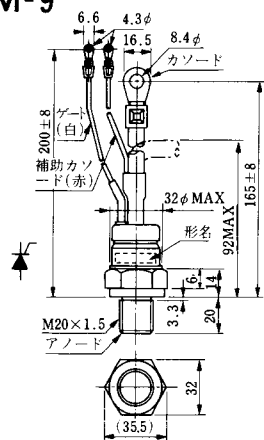
### M-7



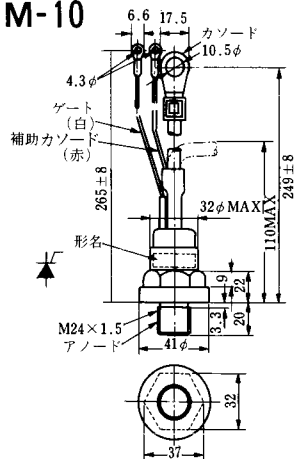
### M-8



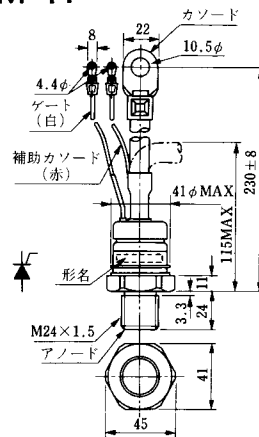
M-9



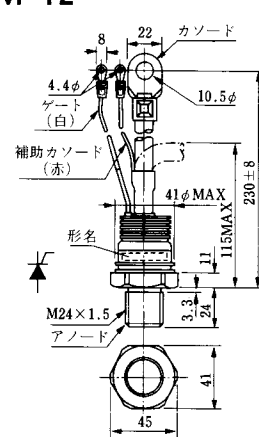
M-10



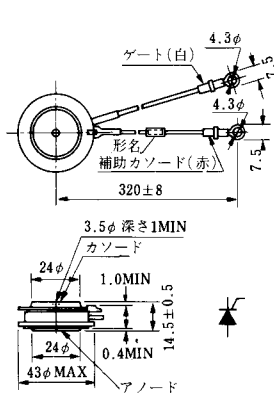
M-11



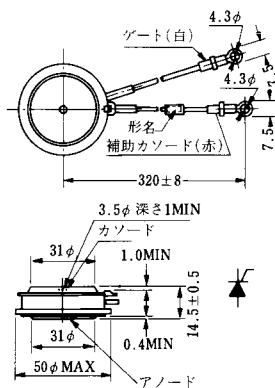
M-12



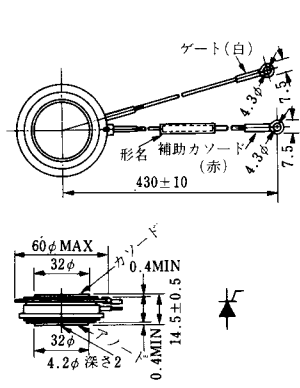
M-13



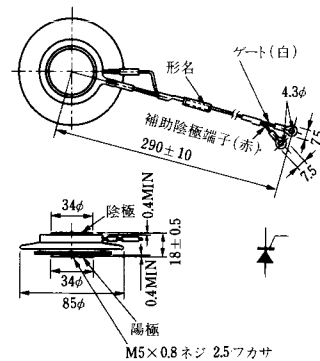
M-14

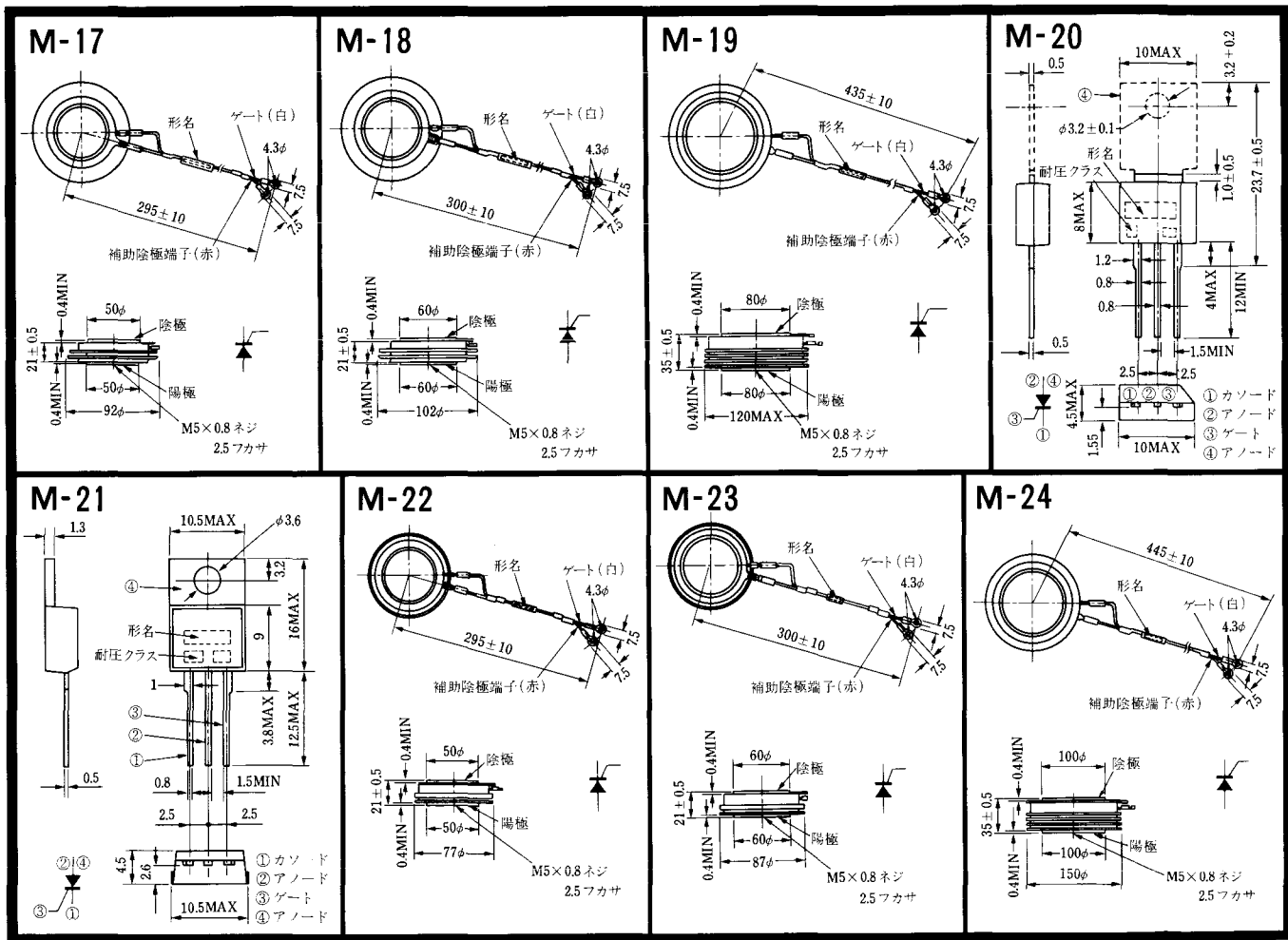


M-15

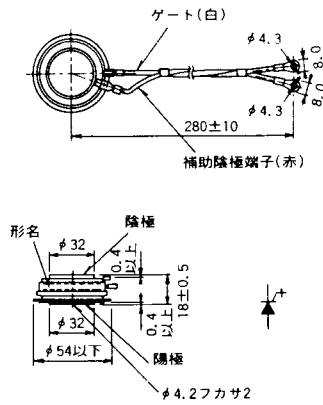


M-16

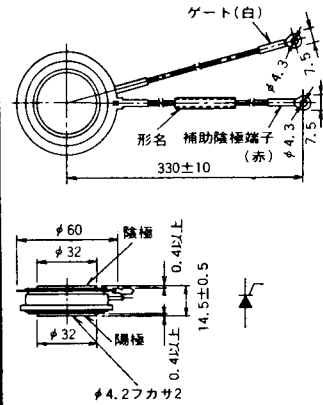




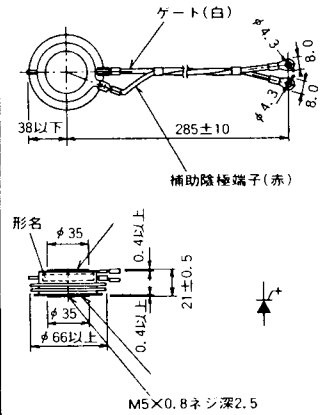
M-25



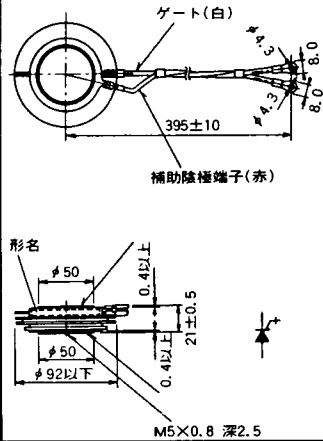
M-26



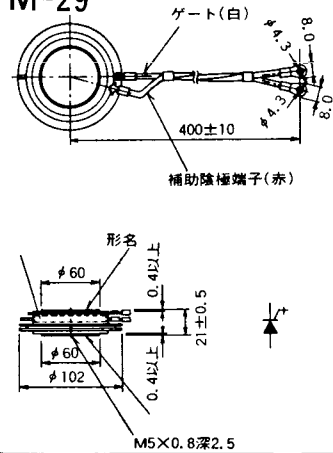
M-27



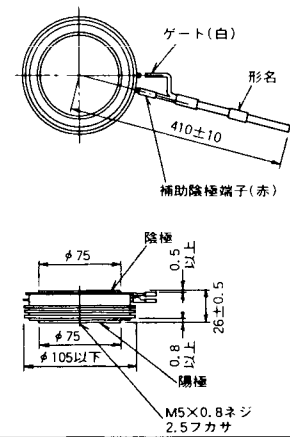
M-28



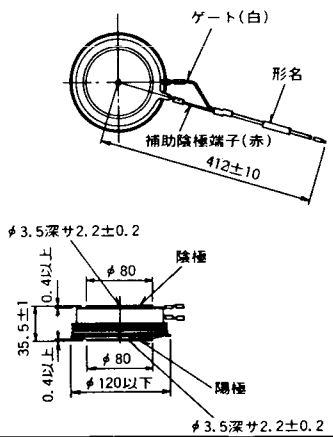
M-29



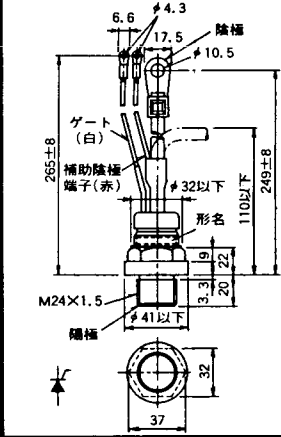
M-30



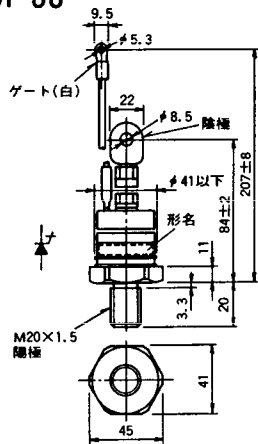
M-31



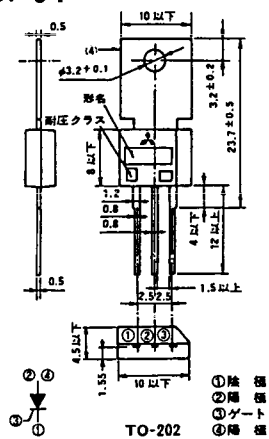
M-32



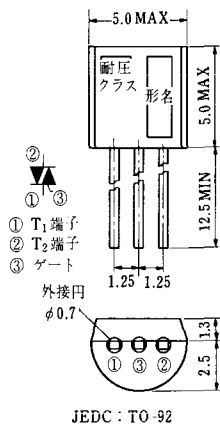
### M-33



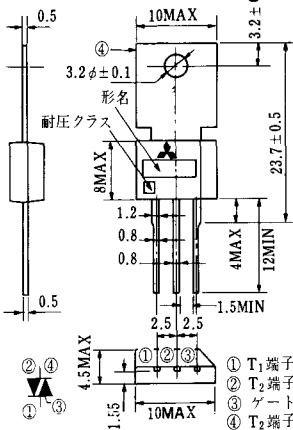
### M-34



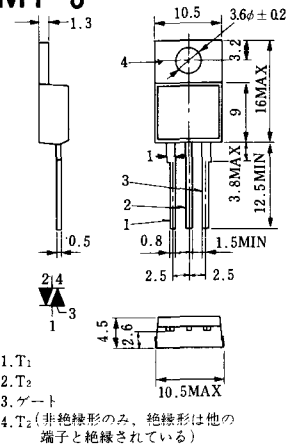
### MT-1



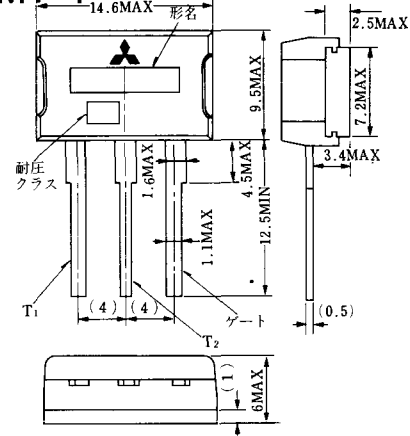
### MT-2



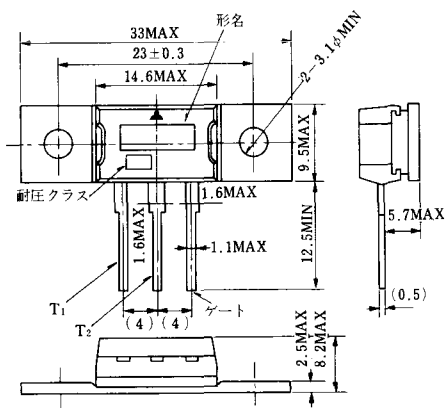
### MT-3



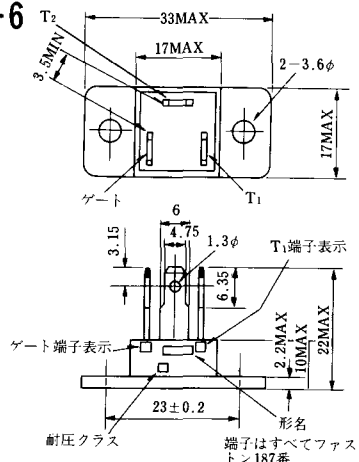
### MT-4



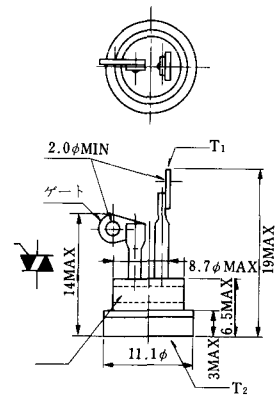
### MT-5



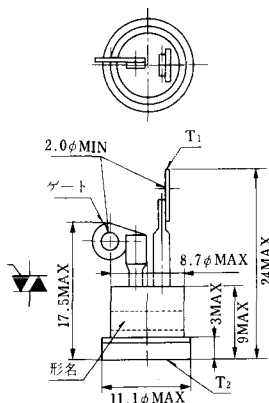
### MT-6



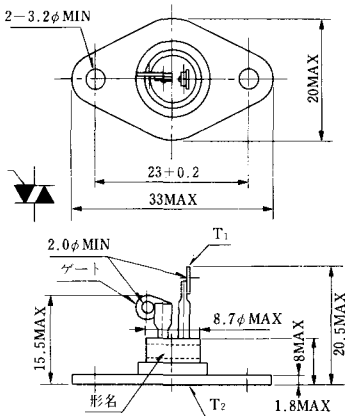
### MT-7



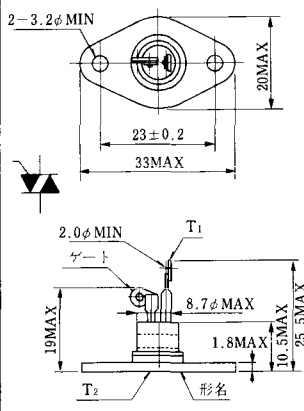
MT-8



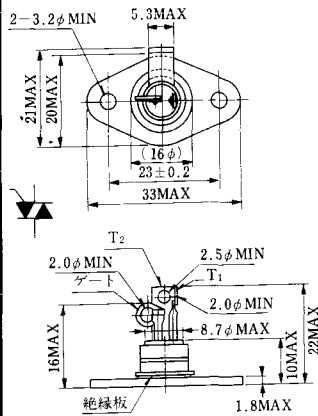
MT-9



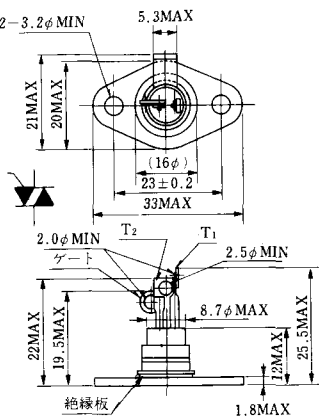
MT-10



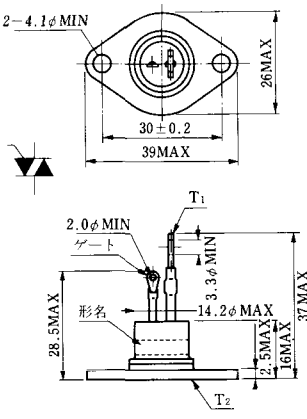
MT-11



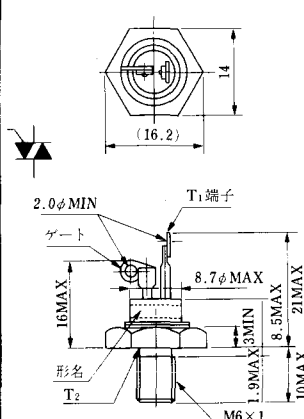
MT-12



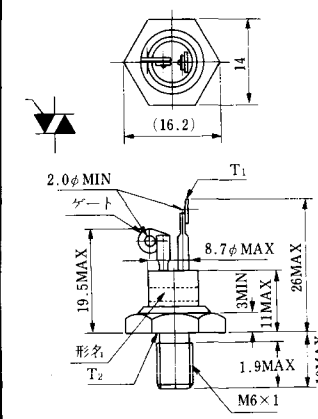
MT-13



MT-14

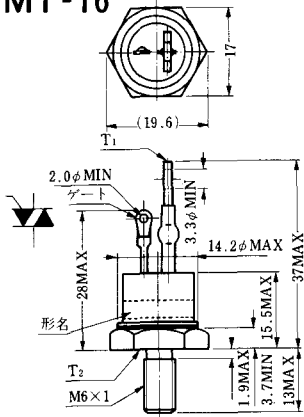


MT-15

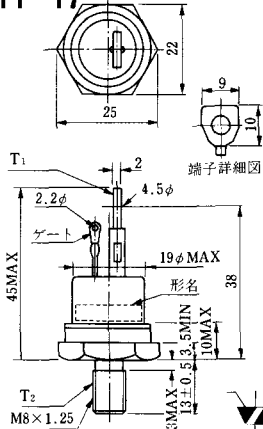




MT-16

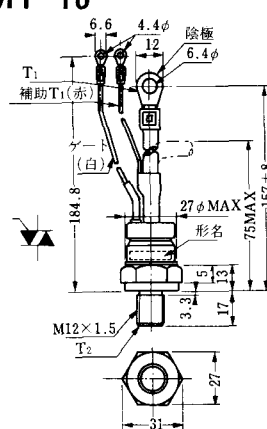


MT-17

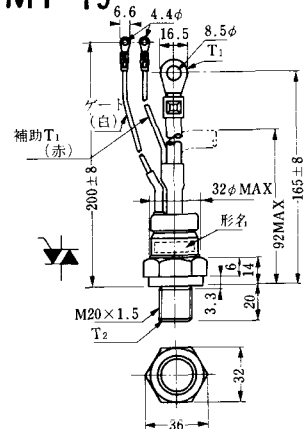


端子詳細図

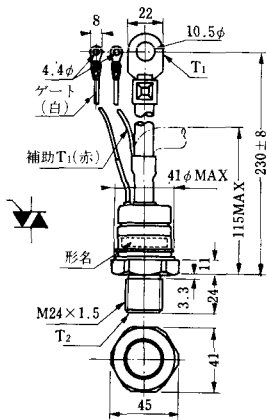
MT-18



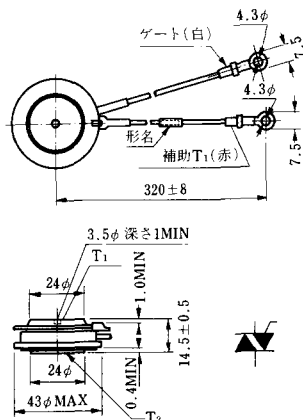
MT-19



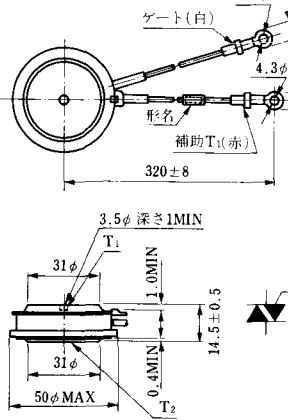
MT-20



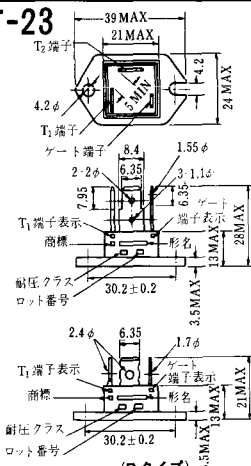
MT-21



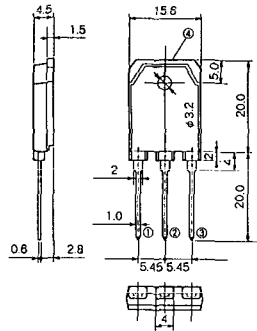
MT-22



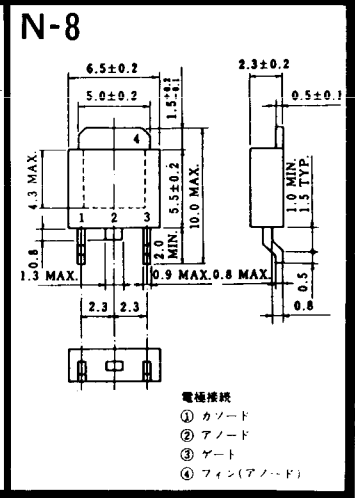
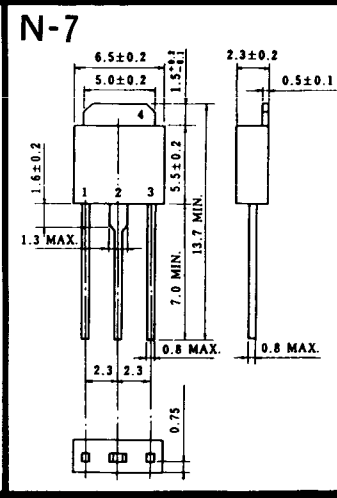
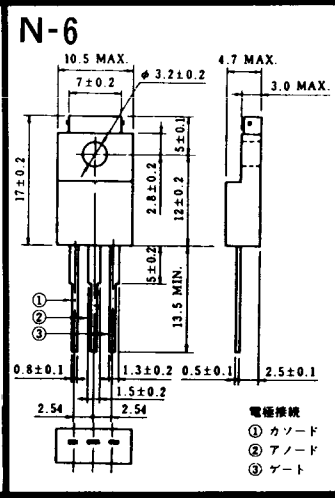
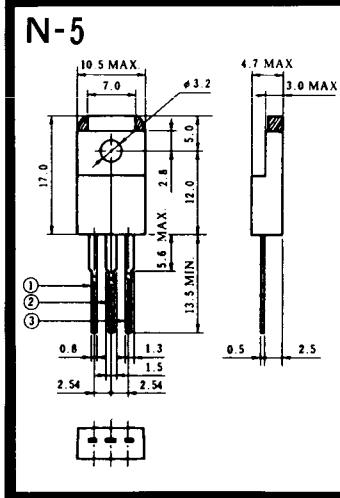
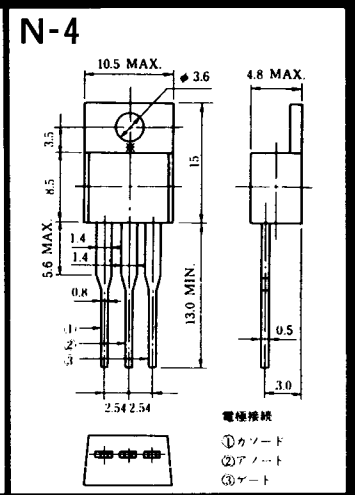
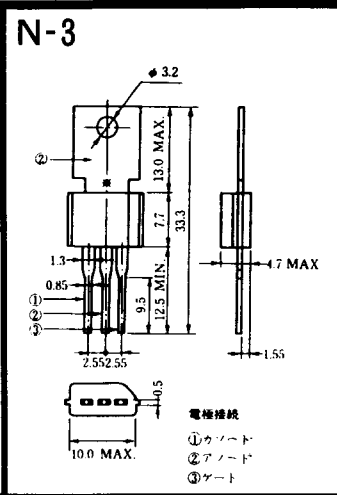
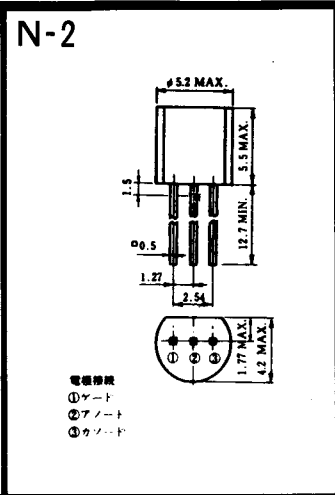
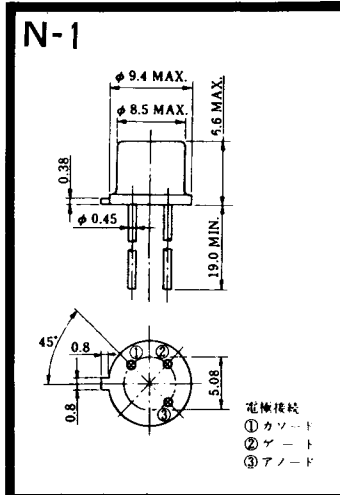
MT-23



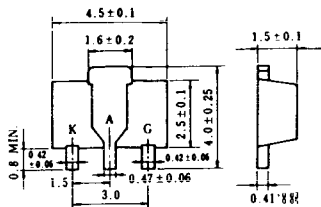
# MT-24



- ① T1 端子
  - ② T2 端子
  - ③ ゲート端子
  - ④ T2 端子
- TO - 3P



# N-9



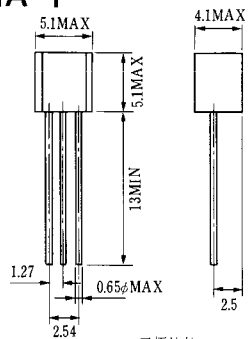
**電極標紙**

K : カソード

A : アノード

G : ゲート

### NA-1

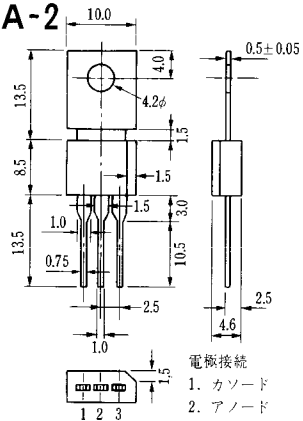


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

### NA-2

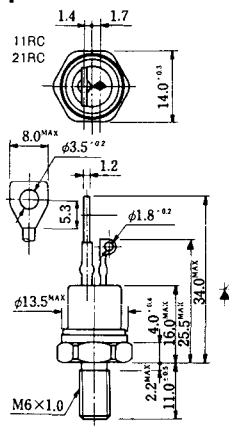


電極接続

1. カソード
2. アノード
3. ゲート

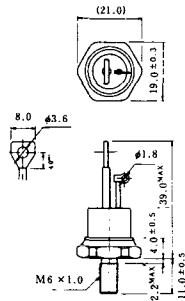
JEDEC: TO-202AA

### NI-1



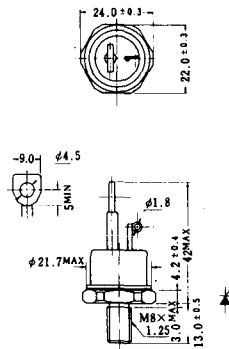
### NI-2

29RD



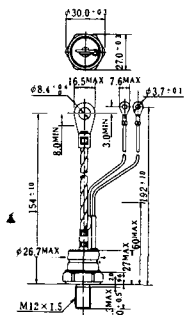
### NI-3

39RC  
59RC  
39RF  
59RF



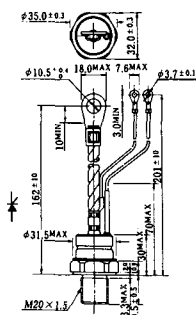
### NI-4

68RP, 88RP, 108RP, 68RS,  
88RS, 78RT, 88RLD, 88RLE,  
88RLF, 88RLG, 88RLH, 108RLE



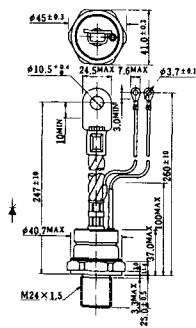
### NI-5

158RP, 208RP, 128RS, 178RS,  
156RT, 178RLD, 178RLE,  
178RLF, 178RLG, 178RLH,  
208RLE



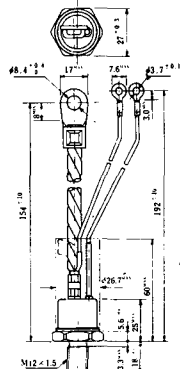
### NI-6

308RP, 408RP, 508RP, 278RS,  
358RS, 258RT, 258RLD, 258RLG,  
258RLH, 308RLE, 308RLF,  
358RLE



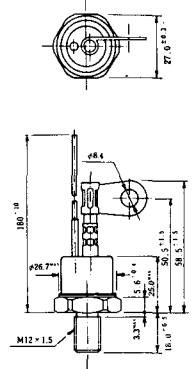
### NI-7

89RW<sub>JL</sub>  
129RW<sub>JL</sub>



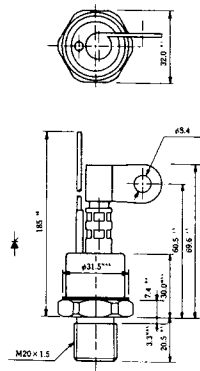
### NI-8

89RW  
129RW



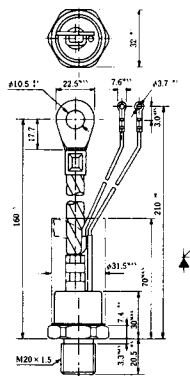
### NI-9

259RW  
309RW



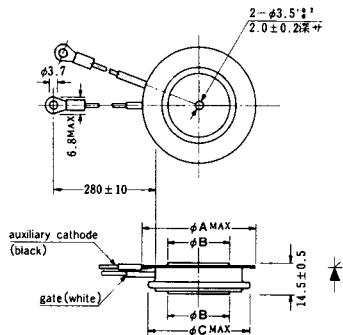
### NI-10

259RW<sub>JL</sub>  
309RW<sub>JL</sub>



### NI-11

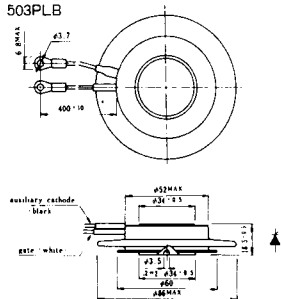
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



| 型名   | 103PA, 103PLE, 103PLG, 103PLH | 253PA, 203PLG, 253PLE, 253PLH | 503PA, 553PA, 353PLG, 403PLE, 403PLH | 803PA |
|------|-------------------------------|-------------------------------|--------------------------------------|-------|
| 寸法 A | 40                            | 46                            | 55.5                                 | 55.5  |
| 寸法 B | 16                            | 22                            | 30                                   | 32    |
| 寸法 C | 36                            | 42                            | 50.5                                 | 50.5  |

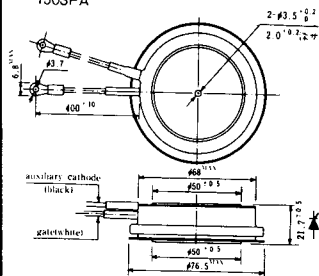
### NI-12

403PAB  
503PAB  
503PLB



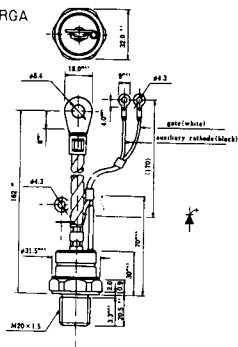
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



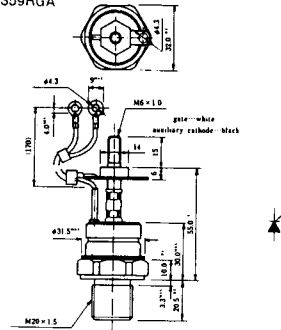
### NI-14

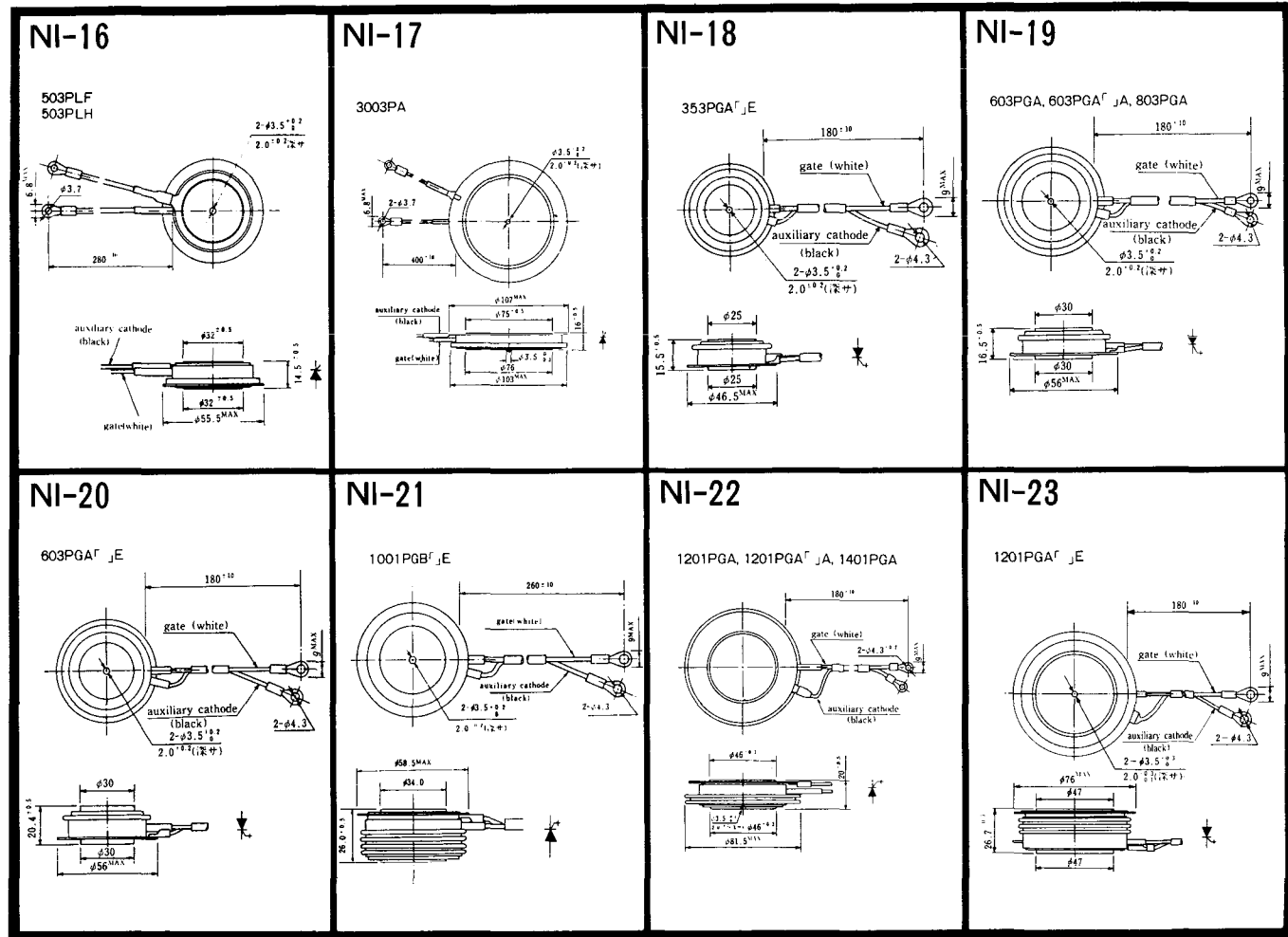
358RGA



### NI-15

359RGA

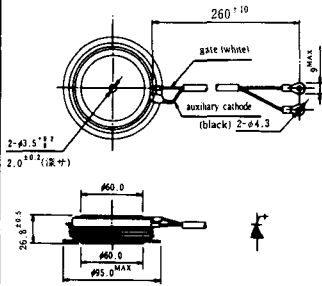






NI-24

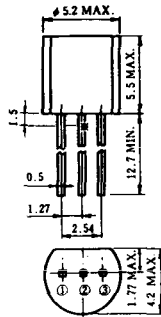
2001PGB<sup>r</sup> JE



NI-25

NI-26

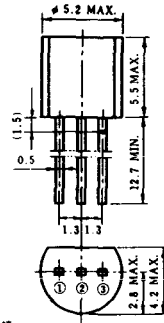
### NT-1



電極接続

- ① T<sub>1</sub>
- ② ゲート
- ③ T<sub>2</sub>

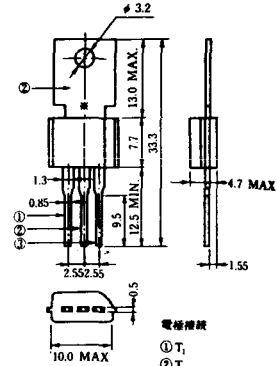
### NT-2



電極接続

- ① T<sub>1</sub>
- ② ゲート
- ③ T<sub>2</sub>

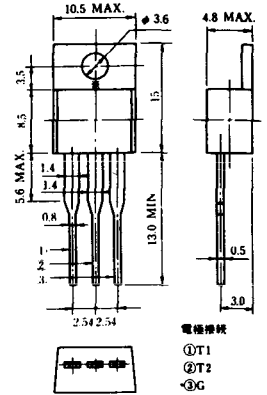
### NT-3



電極接続

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ ゲート

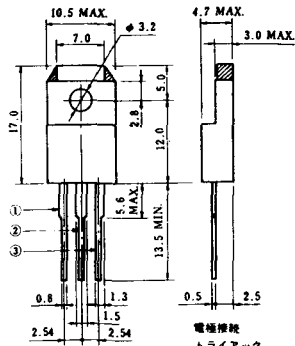
### NT-4



電極接続

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ G

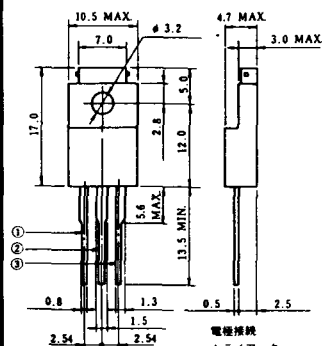
### NT-5



電極接続  
トライアック

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ ゲート

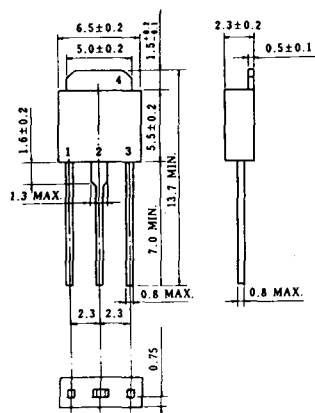
### NT-6



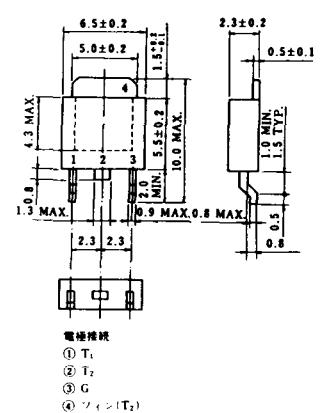
電極接続  
トライアック

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ ゲート

### NT-7



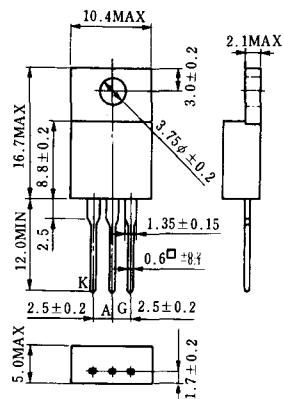
### NT-8



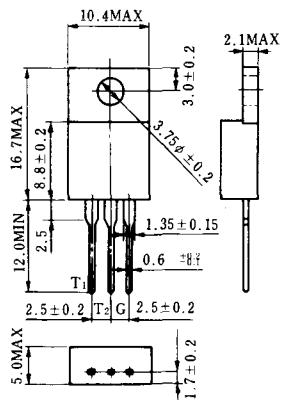
電極接続

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ G
- ④ シフト(T<sub>2</sub>)

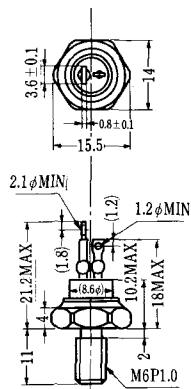
### S-1



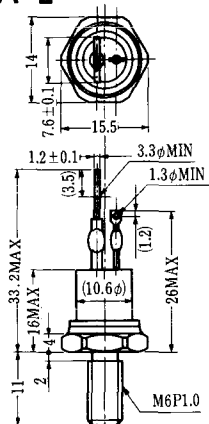
### ST-1



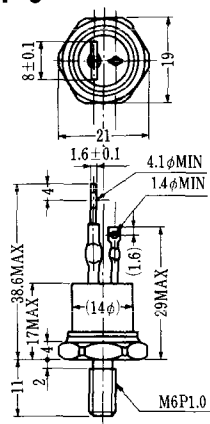
SA-1



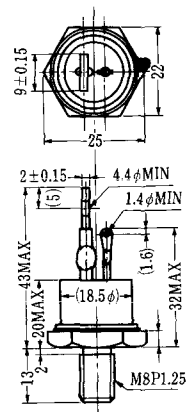
SA-2



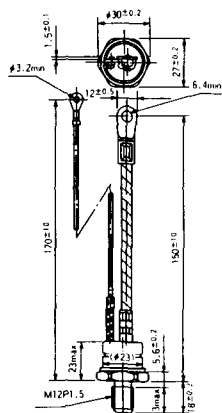
SA-3



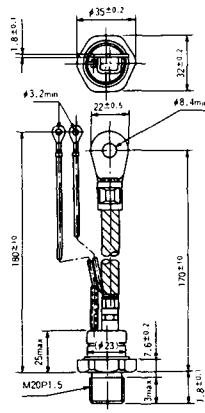
SA-4



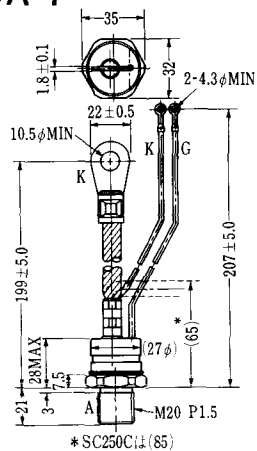
SA-5



SA-6

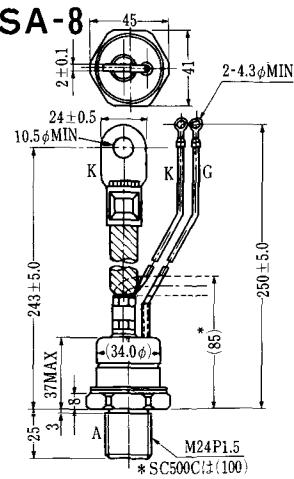


SA-7



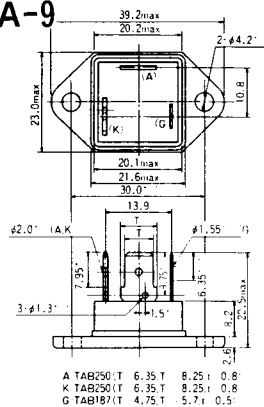
\* SC250C(L)(85)

SA-8



\* SC500C(L)(100)

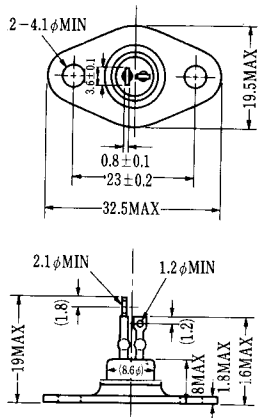
### SA-9



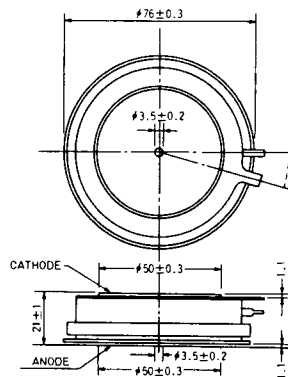
A TAB250(T) 6.35 T 8.25 I 0.8  
 K TAB250(T) 6.35 T 8.25 I 0.8  
 G TAB187(T) 4.75 T 5.7 I 0.5



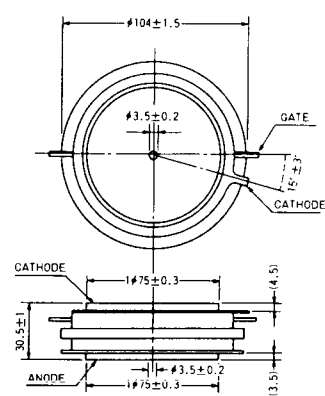
### SA-10



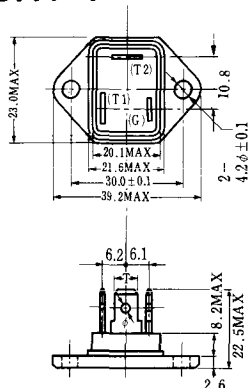
### SA-11



### SA-12

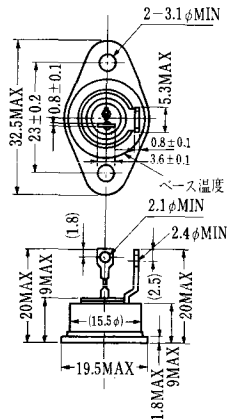


SAT-1

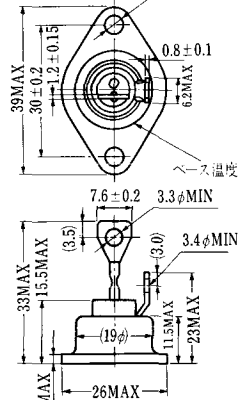


T1 端子: フラスト > 250 (T=6.35, t=0.8,  $\phi$ =1.65)  
 T2 端子: フラスト > 250 (T=6.35, t=0.8,  $\phi$ =1.65)  
 C 端子: フラスト > 187 (T=4.75, t=0.5,  $\phi$ =1.3)

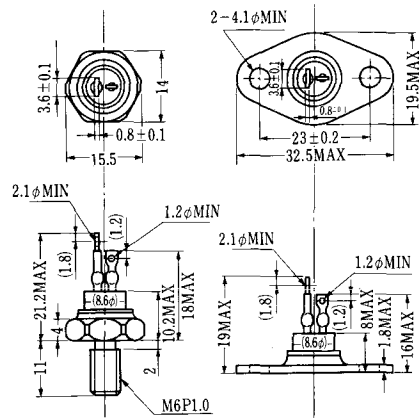
SAT-2



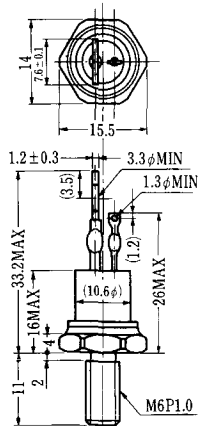
SAT-3



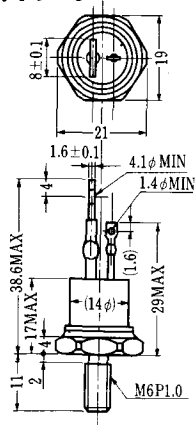
SAT-4



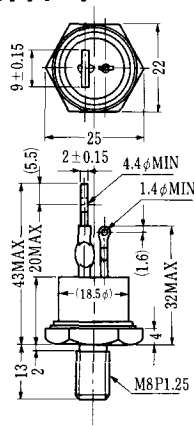
SAT-5



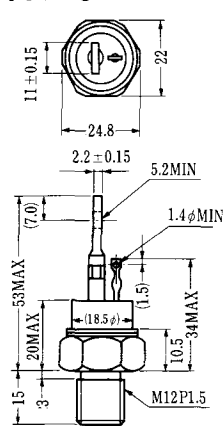
SAT-6



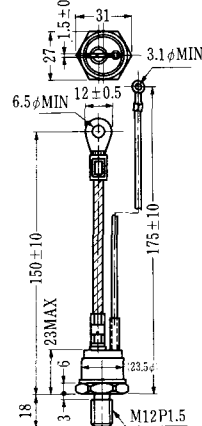
SAT-7



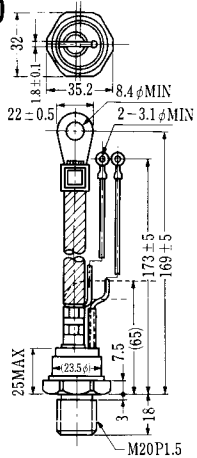
SAT-8



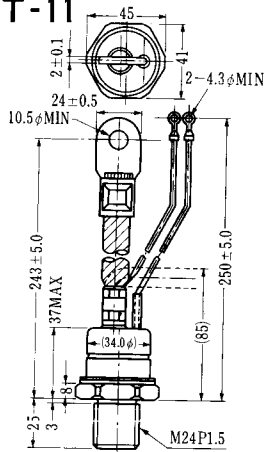
SAT-9



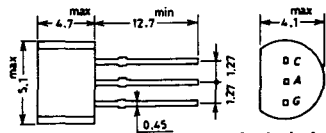
SAT-10



SAT-11

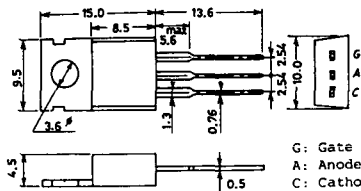


### SY-1 (1096A)



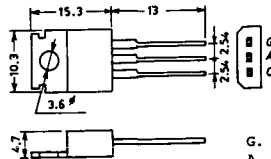
C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



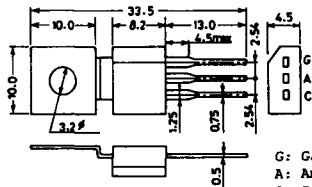
G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

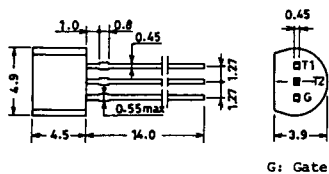
### SY-4 (1150)



G: Gate  
A: Anode  
C: Cathode

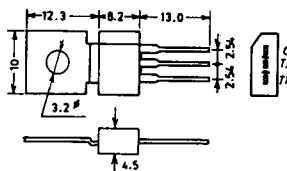


1097A

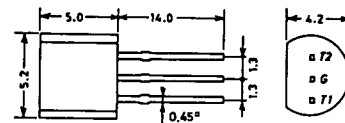


G: Gate

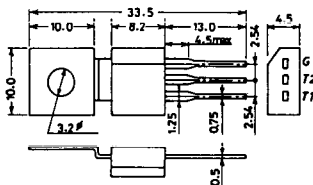
1102



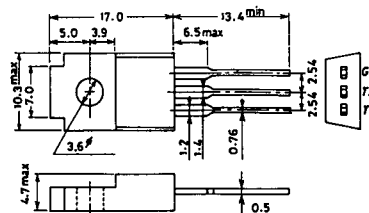
1141



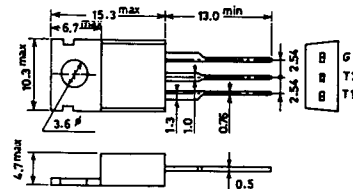
1142



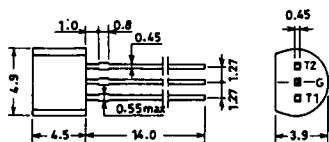
1144



1155

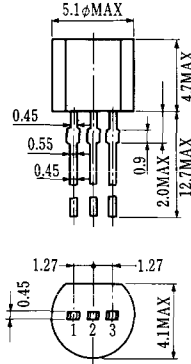


1192A



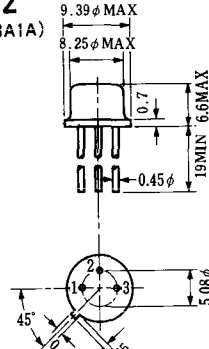
G: Gate

**T-1 (13-5A1A)**



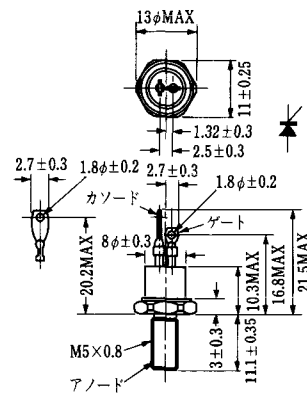
- 1 ゲート
- 2 アノード
- 3 カソード

**T-2 (13-8A1A)**



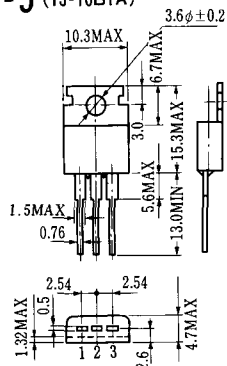
1. カソード
2. ゲート
3. アノード(ケース)

**T-3 (13-8C1A)**



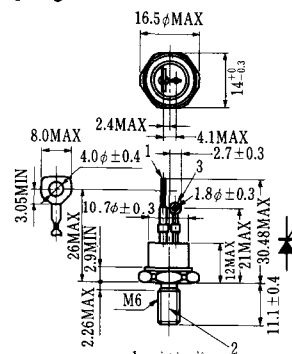
- 1 カソード
- 2 アノード
- 3 ゲート

**T-5 (13-10B1A)**



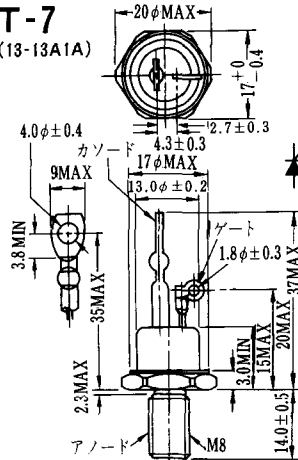
- 1 カソード
- 2 アノード
- 3 ゲート

**T-6 (13-11D1A)**

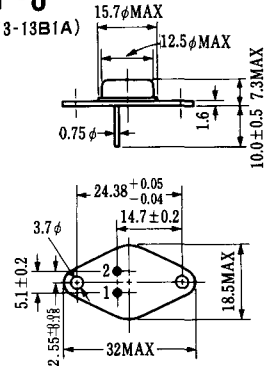


- 1 カソード
- 2 アノード
- 3 ゲート

**T-7 (13-13A1A)**

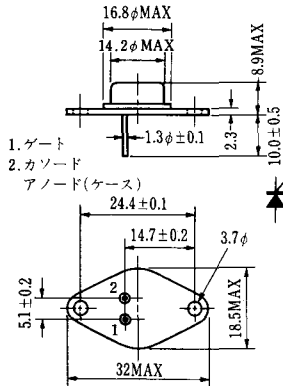


**T-8 (13-13B1A)**



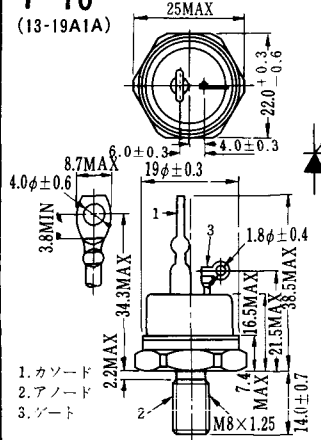
1. ゲート
2. カソード
3. アノード(ケース)

### T-9 (13-14A1A)



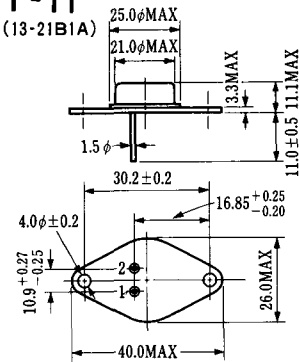
1. ゲート
2. カソード
- アノード(ケース)

### T-10 (13-19A1A)



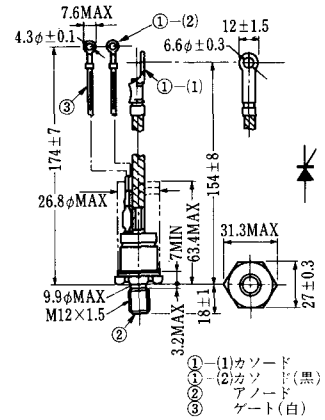
1. カソード
2. アノード
3. ゲート

### T-11 (13-21B1A)



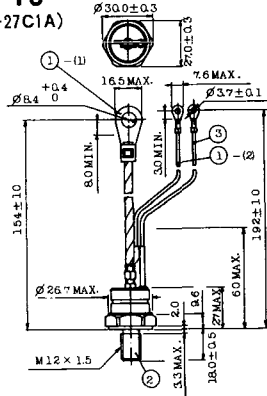
1. ゲート
2. カソード
- アノード(ケース)

### T-12 (13-27B1B)



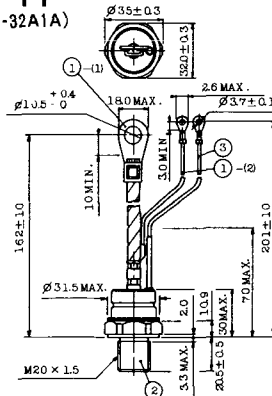
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

### T-13 (13-27C1A)



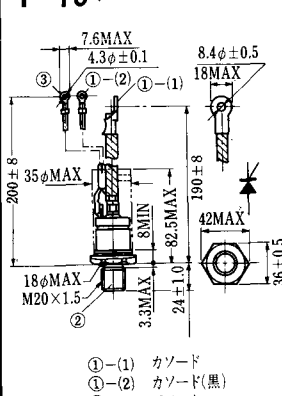
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

### T-14 (13-32A1A)



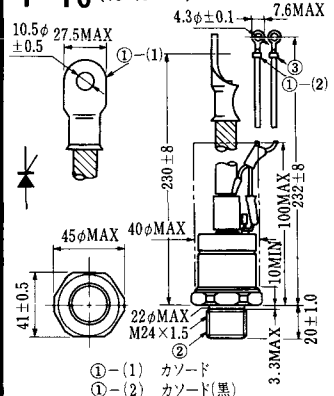
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

### T-15 (13-35C1B)



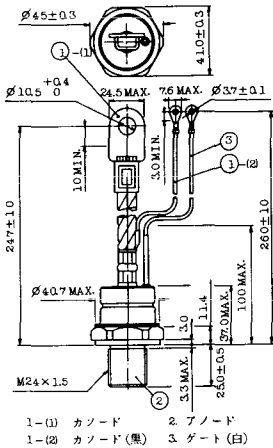
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

### T-16 (13-40B1A)

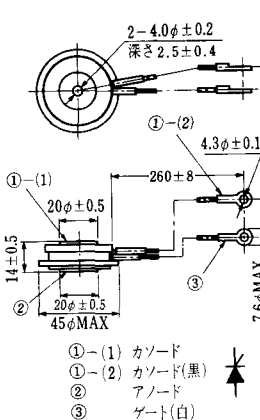


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

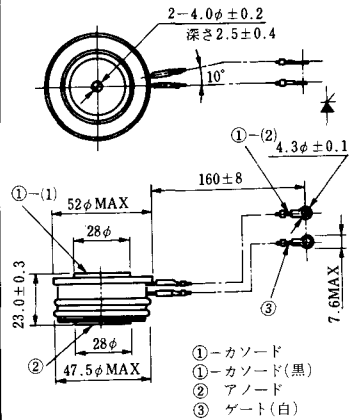
**T-17 (13-42A1A)**



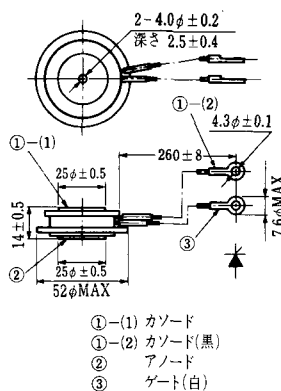
**T-18 (13-45D1A)**



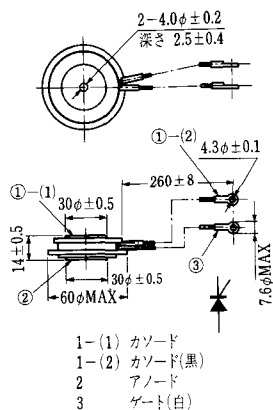
**T-19 (13-52B1A)**



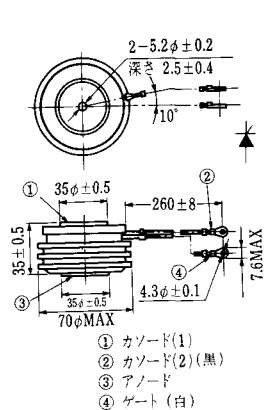
**T-20 (13-52C1A)**



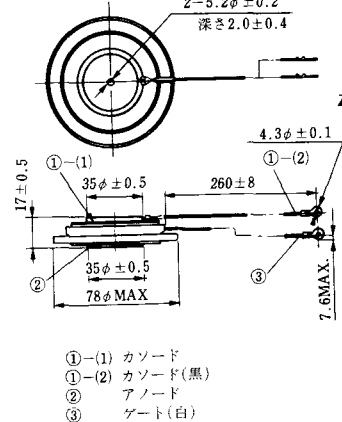
**T-21 (13-60A1A)**



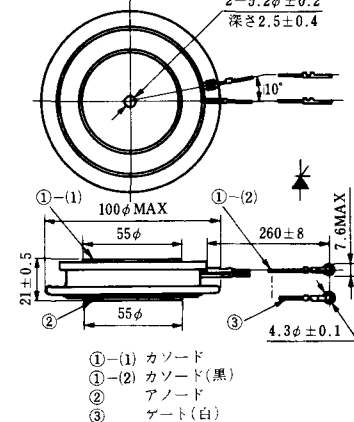
**T-22 (13-70C1A)**



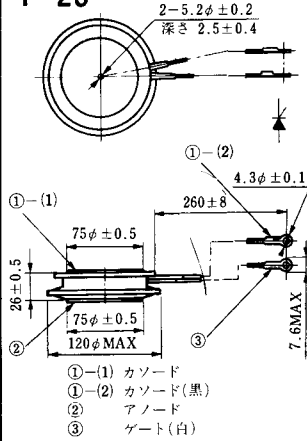
**T-23 (13-78A1A)**



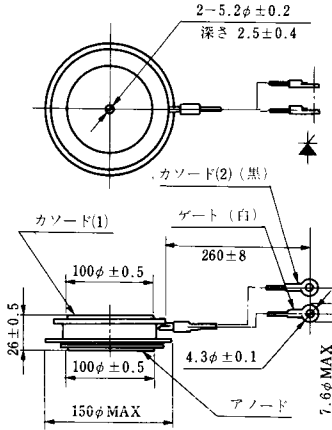
**T-24 (13-100C1A)**



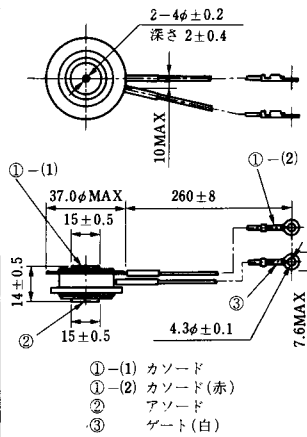
**T-25** (13-120A2A)



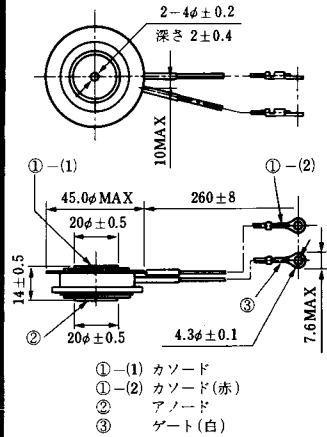
**T-26** (13-150A1A)



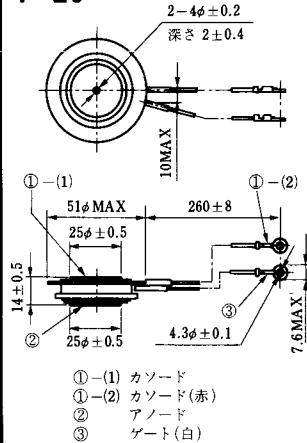
**T-27** (13-37A1A)



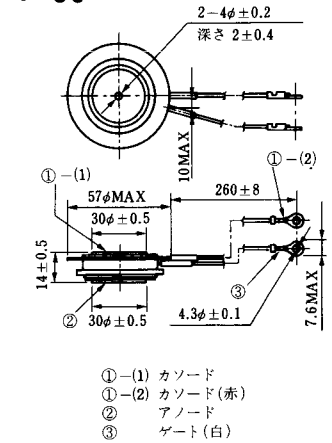
**T-28** (13-45E1A)



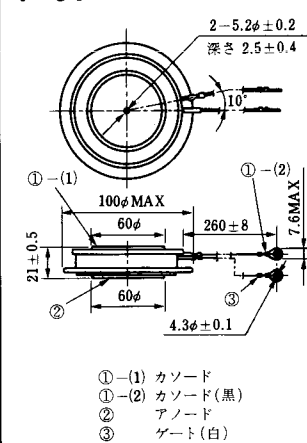
**T-29** (13-51A1A)



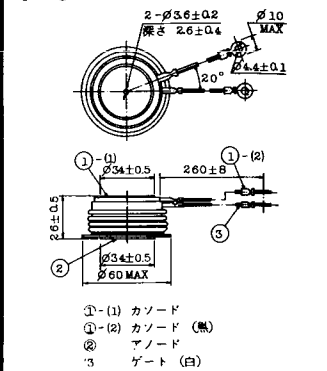
**T-30** (13-57A1A)



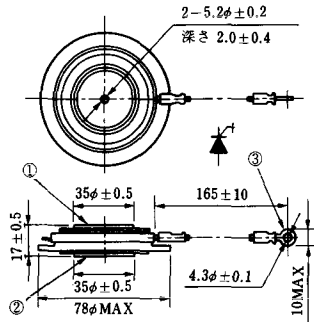
**T-31** (13-100E1A)



**T-32** (13-60E3A)

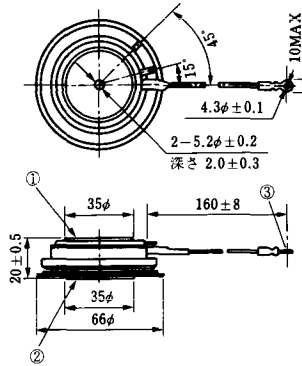


T-33 (13-78B1A)



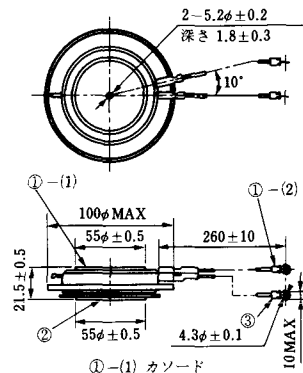
- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



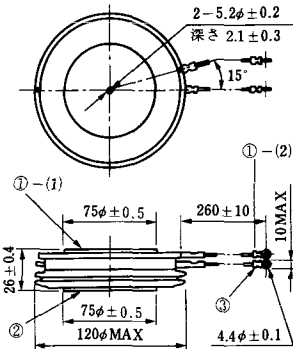
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



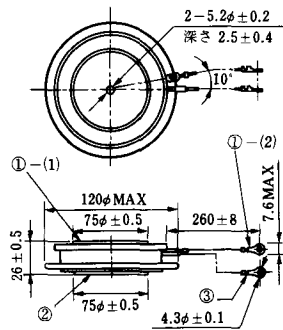
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



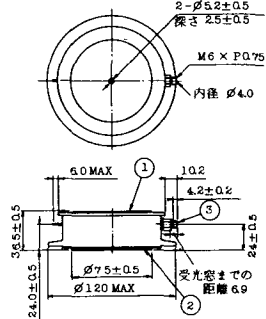
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



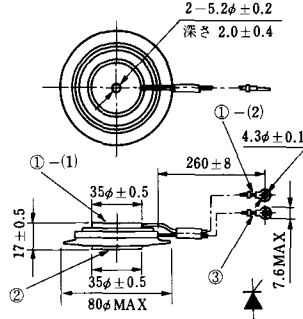
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



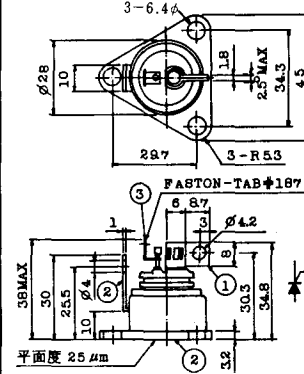
- ① カソード
- ② アノード
- ③ ゲート

T-39 (13-80B1A)



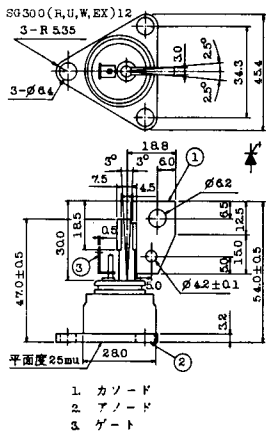
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-40 (13-28A1A)

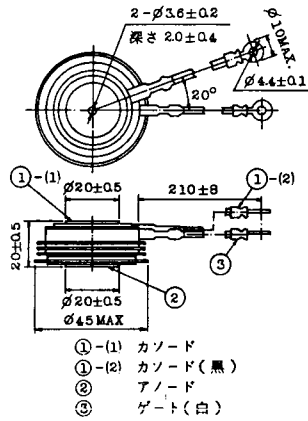


- 1. カソード
- 2. アノード
- 3. ゲート

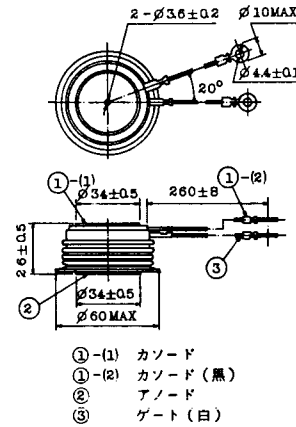
### T-41 (13-28A2A)



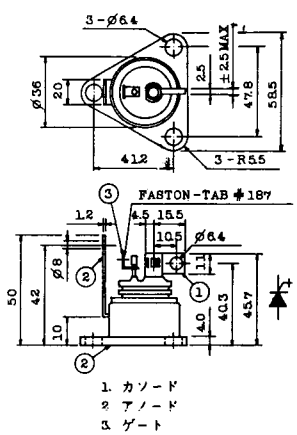
### T-42 (13-45F1A)



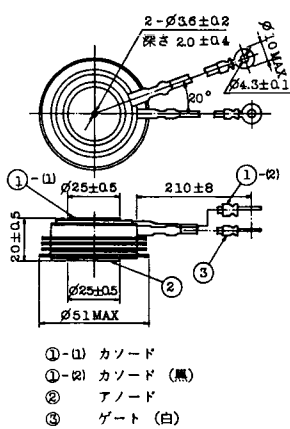
### T-43 (13-60E2A)



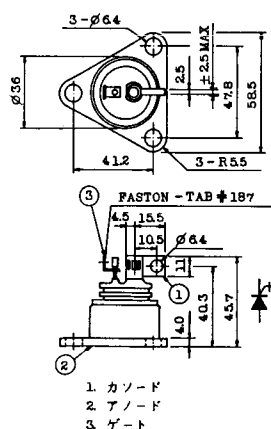
### T-44 (13-36A1A)



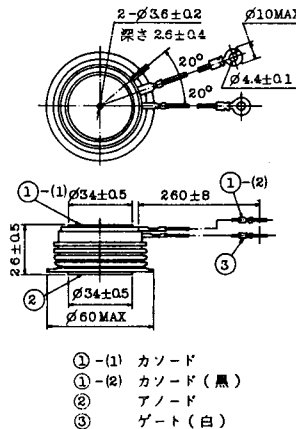
### T-45 (13-51B1A)



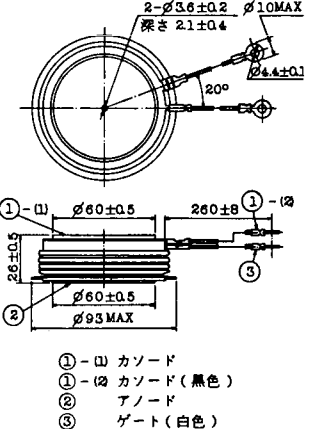
### T-46 (13-36B1A)



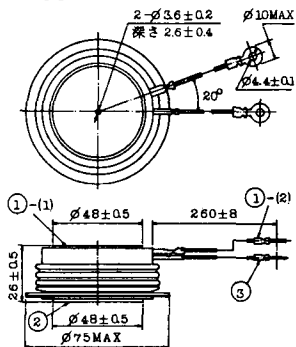
### T-47 (13-60E1A)



### T-48 (13-93C1A)

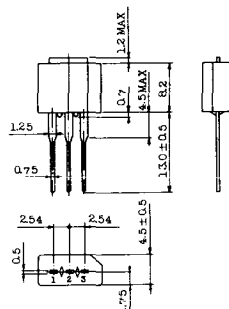


**T-49** (13-75A1A)



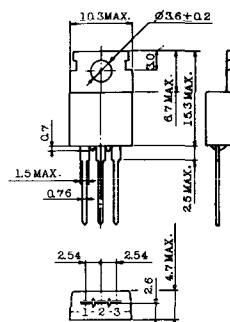
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

**T-50** (13-10A3A)



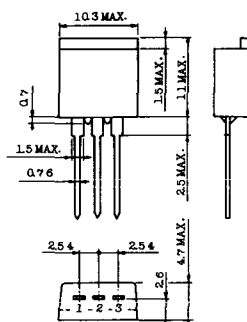
- 1 カソード
- 2 アノード
- 3 ゲート

**T-51** (13-10D1A)



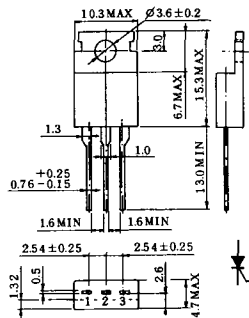
- 1 カソード
- 2 アノード
- 3 ゲート

**T-52** (13-10D2A)



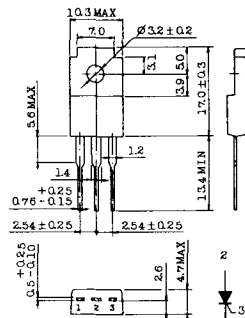
- 1 カソード
- 2 アノード
- 3 ゲート

**T-53** (13-10E1B)



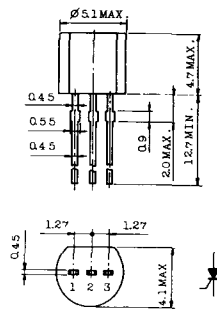
- 1 カソード
- 2 アノード
- 3 ゲート

**T-54** (13-10F1B)



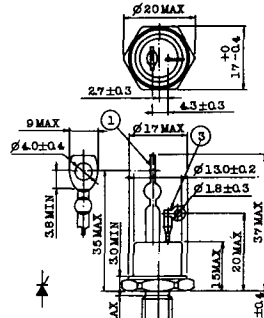
- 1 カソード
- 2 アノード
- 3 ゲート

**T-55** (13-5A1D)



- 1 カソード
- 2 アノード
- 3 アノード

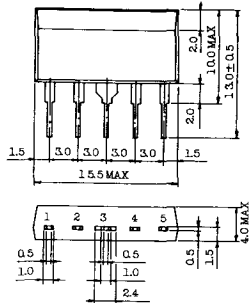
**T-56** (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

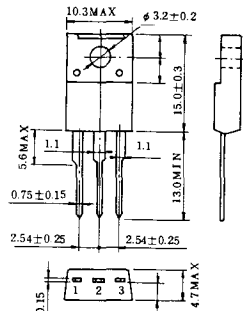


T-57 (12-16C1A)



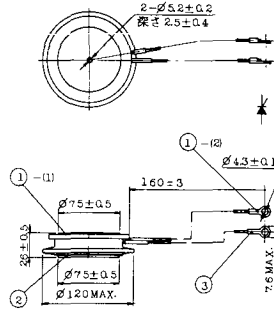
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



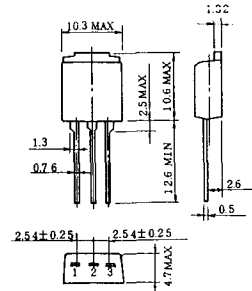
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



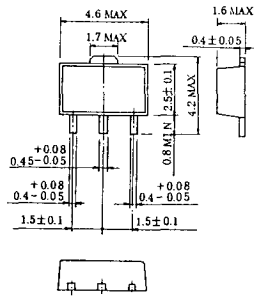
- 1-(1) カソード
- 1-(2) カソード (黒)
2. アノード
3. ゲート (白)

T-60



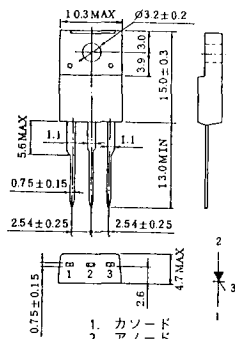
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



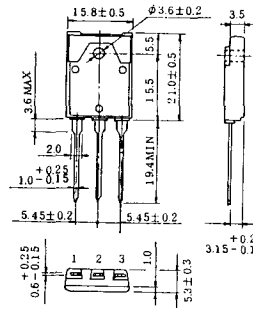
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



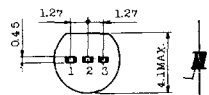
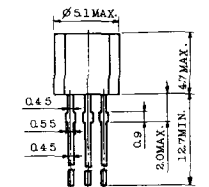
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



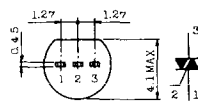
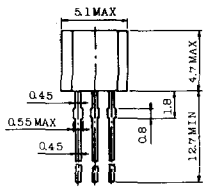
1. カソード
2. アノード
3. ゲート

TT-1



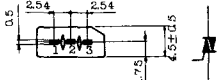
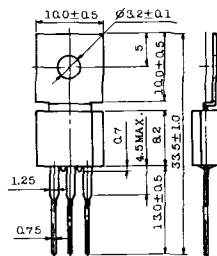
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



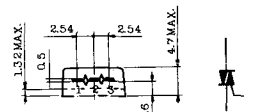
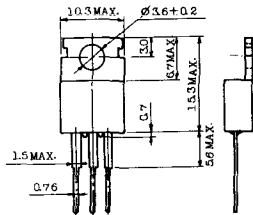
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



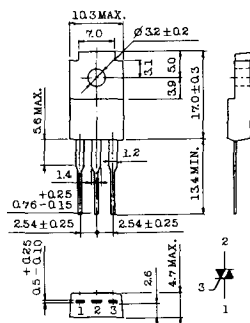
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



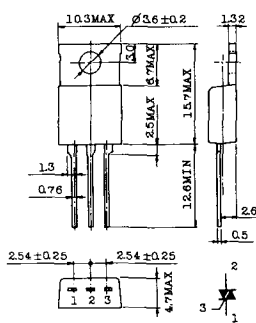
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



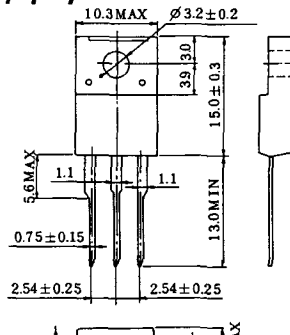
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



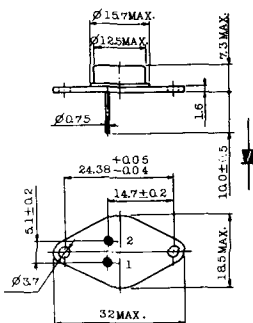
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



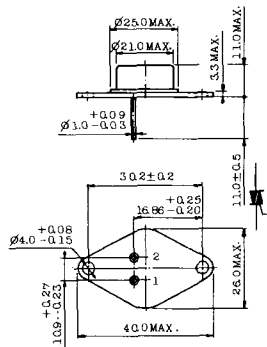
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-8



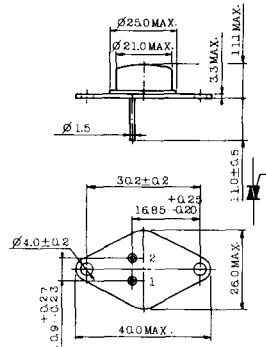
- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



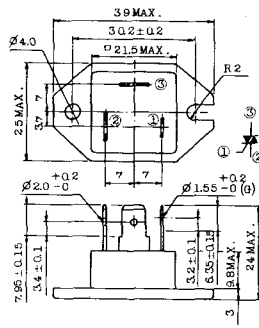
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-10



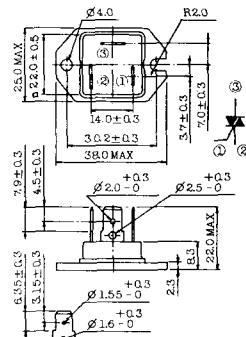
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-11



1. ゲート (フーストン端子 #187)
2. T<sub>1</sub> ( " #250)
3. T<sub>2</sub> ( " #250)

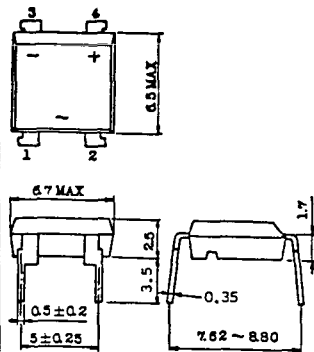
TT-12



ゲート端子詳細

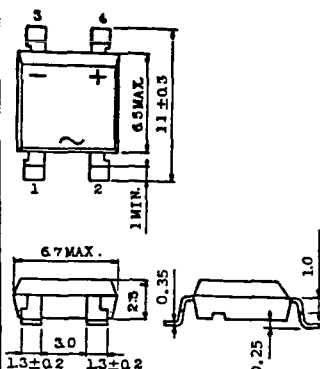
- ① ゲート (フーストン端子 #187)
- ② T<sub>1</sub> ( " #250)
- ③ T<sub>2</sub> ( " #250)

TT-13



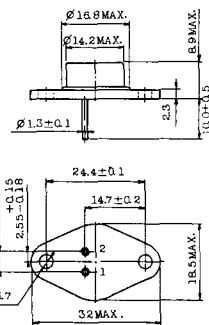
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



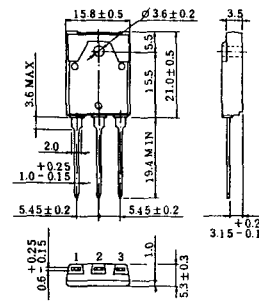
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-15 (13-14A1B)

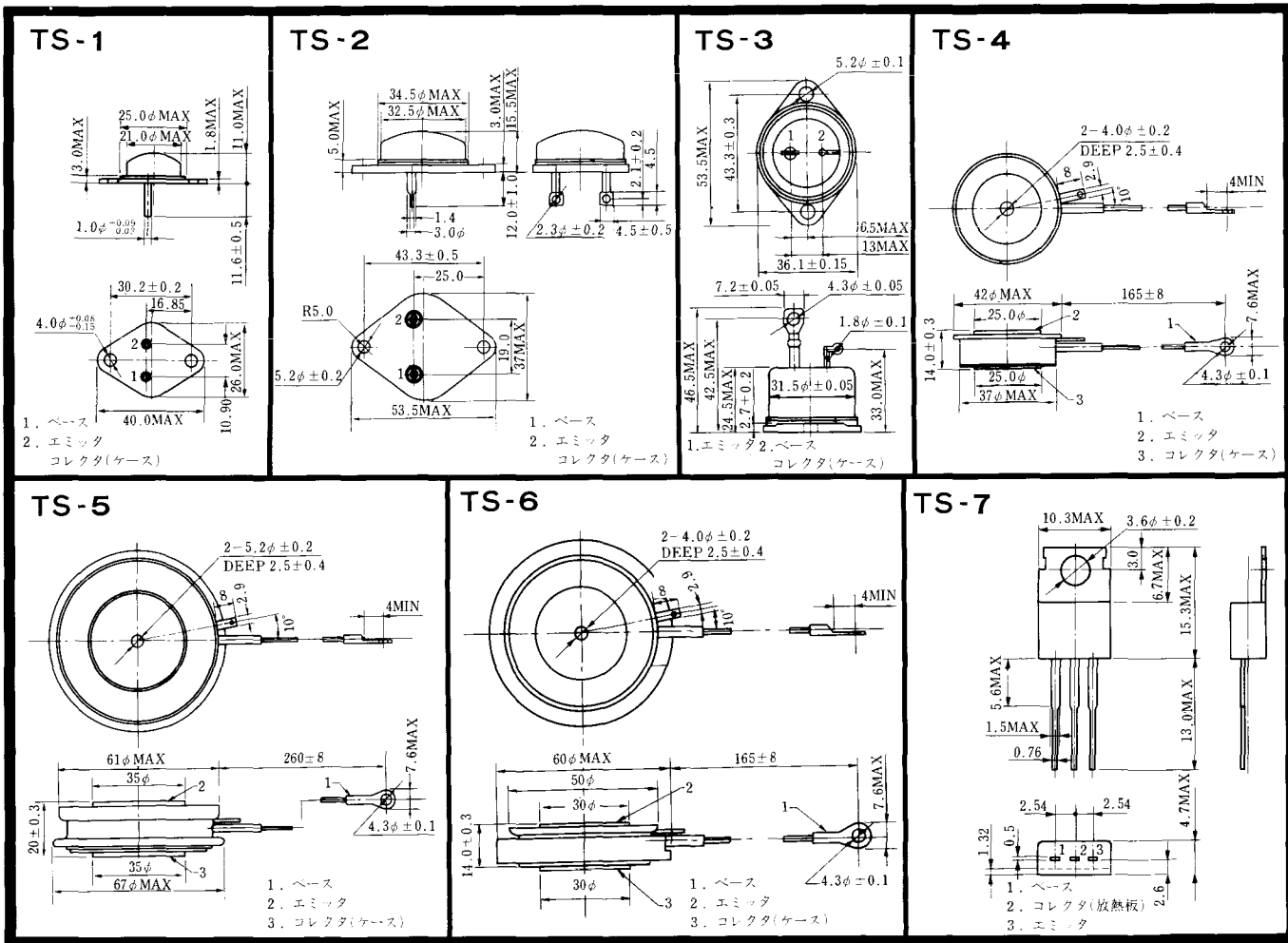


1. ゲート
2. T<sub>1</sub>
- T<sub>2</sub> (ケース)

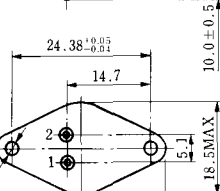
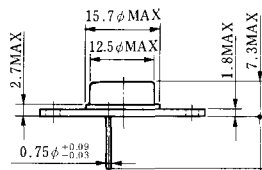
TT-16 (13-16A1A)



1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート

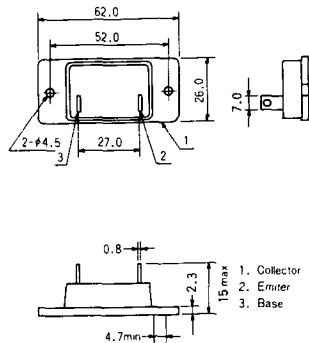


TS-8

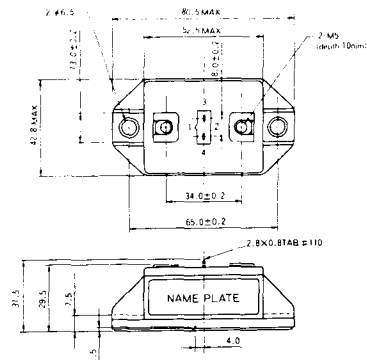


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

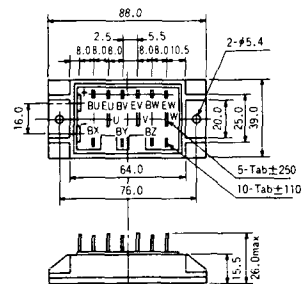
S-62A1A



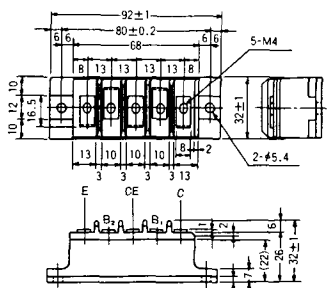
S-80A1A



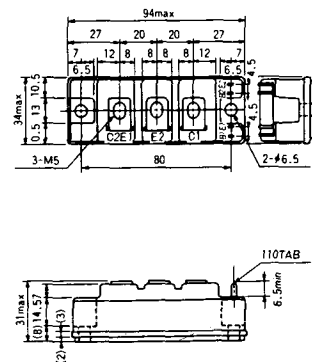
S-88D1A



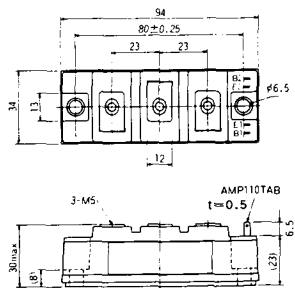
S-92B1A



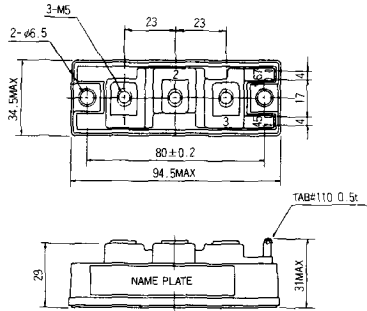
S-94B1A



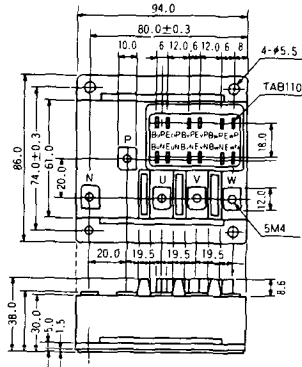
S-94B1B



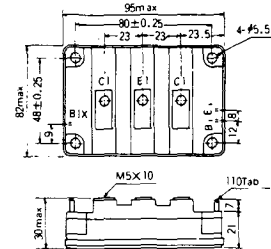
S-94B2A



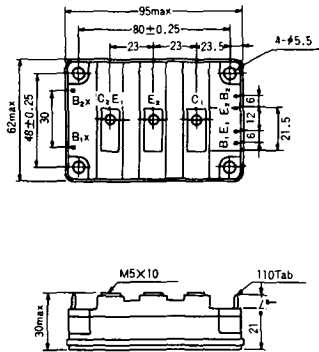
S-94D1A



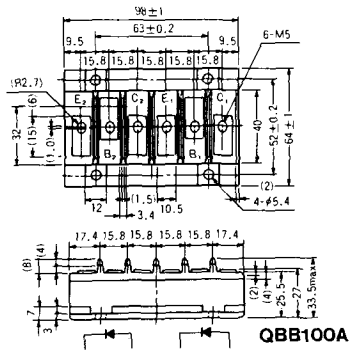
S-95A1A



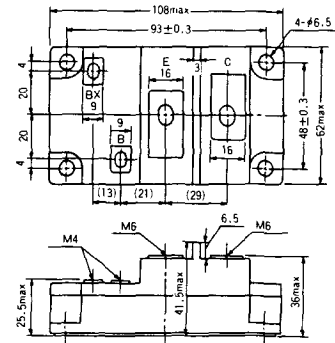
S-95B1A



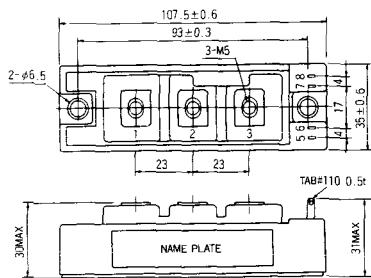
S-98B1B



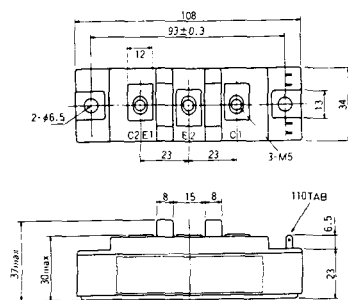
S-108A2A



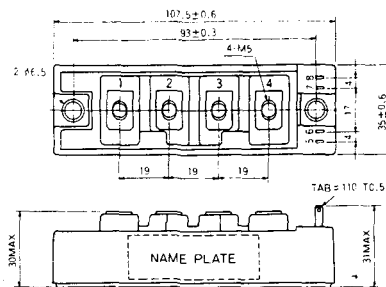
S-108B1A



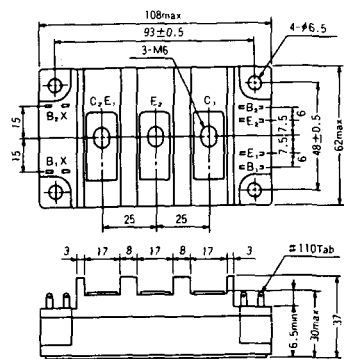
S-108B1B



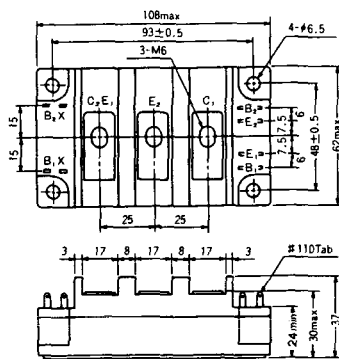
S-108B1C



S-108B2A

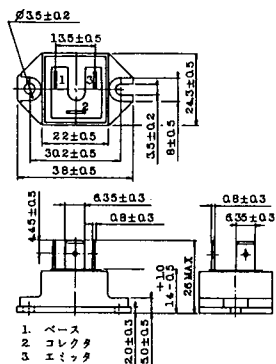


S-108B2B

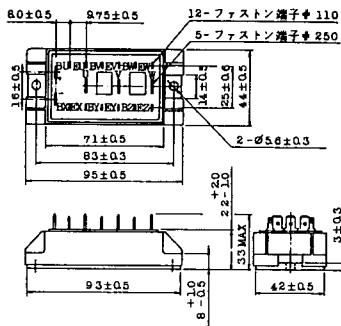




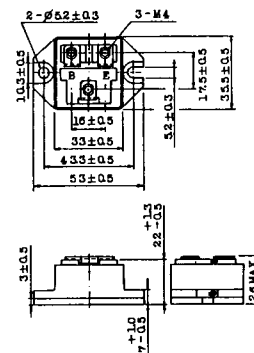
### 2-22B1A



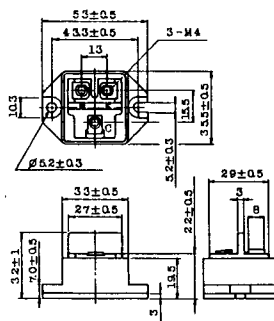
### 2-27A4A



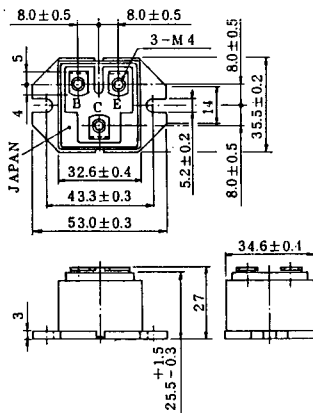
### 2-33C1A



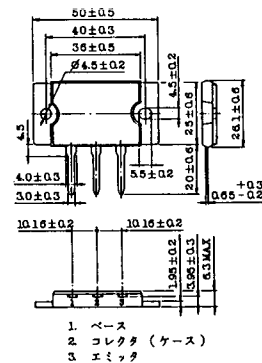
### 2-33D1A



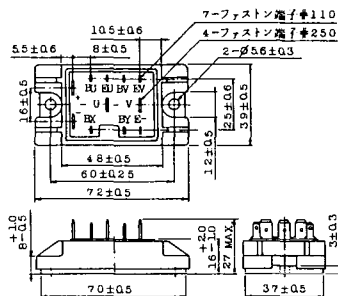
### 2-33F1A



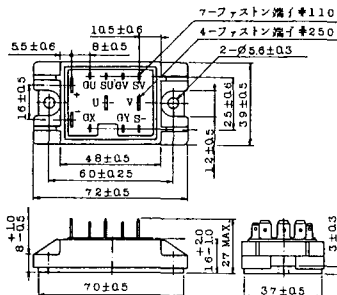
### 2-37A1A



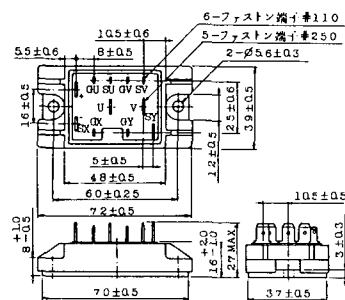
2-48A3A



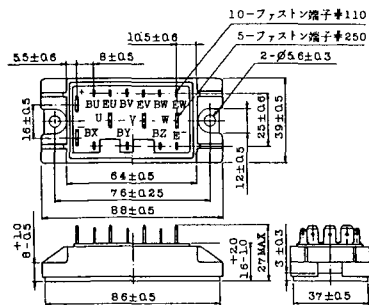
2-48A3B



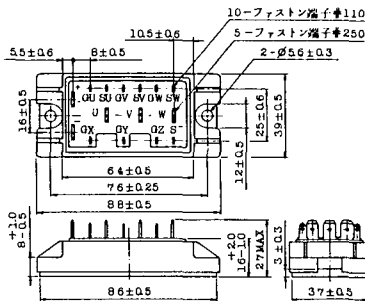
2-48A4A



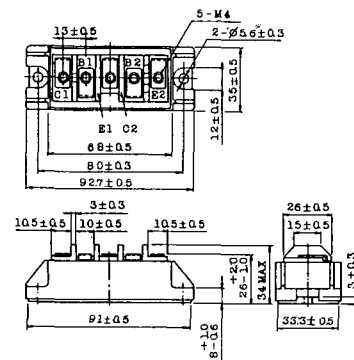
2-64A2A



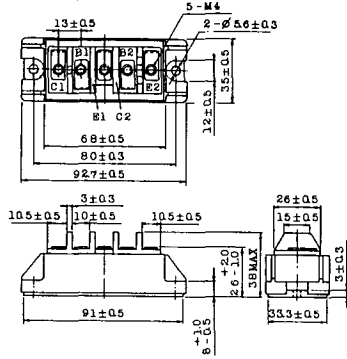
2-64A2B



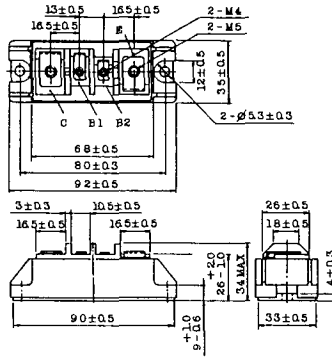
2-68A2A



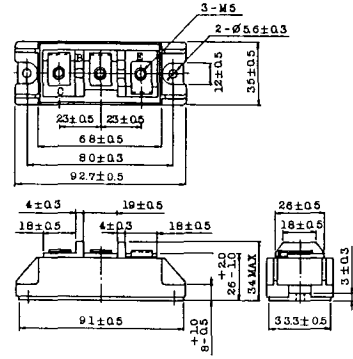
2-68B2A



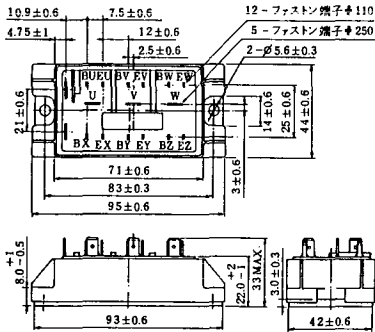
2-68C1A



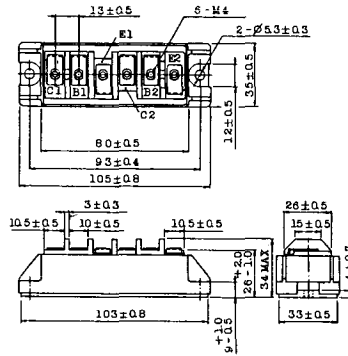
2-68D2A



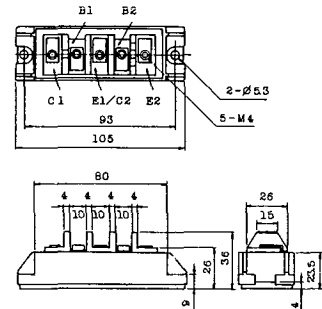
2-72A3A



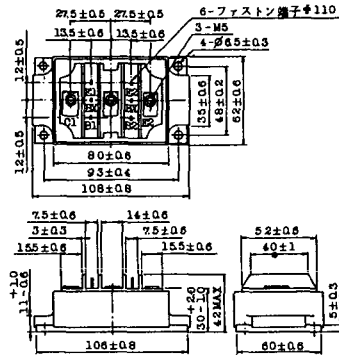
2-80A1A



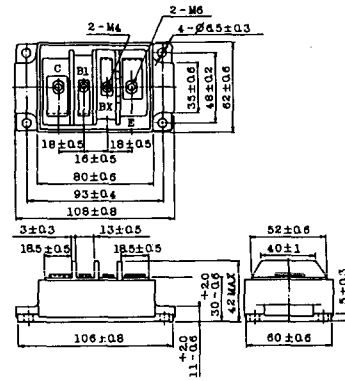
2-80B1A



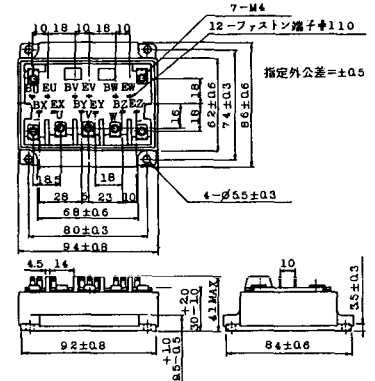
### 2-80C1A



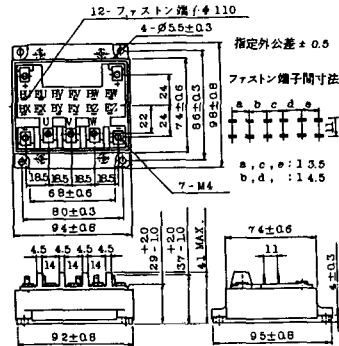
### 2-80D2A



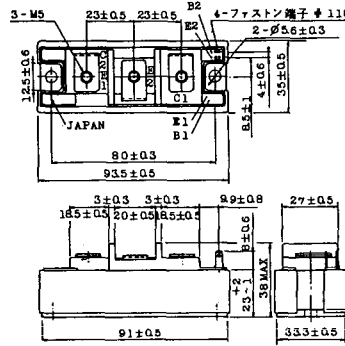
### 2-94A2A



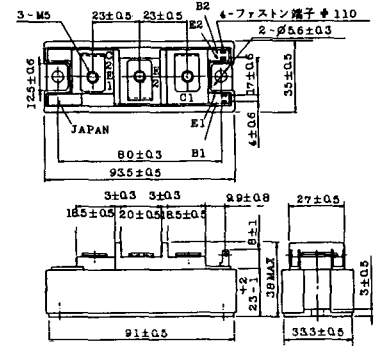
### 2-94B1A



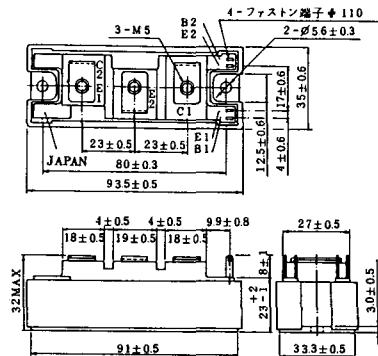
### 2-94C2A



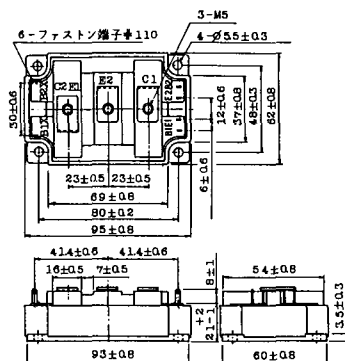
### 2-94C3A



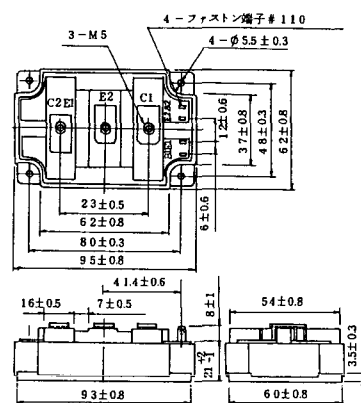
### 2-94D1A



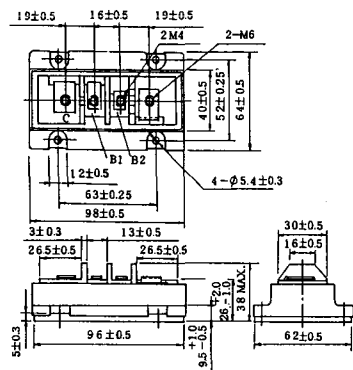
### 2-96A3A



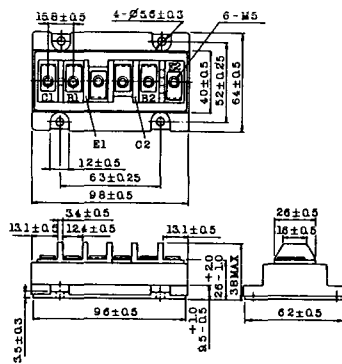
### 2-96A4A



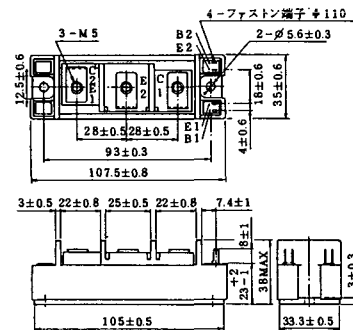
### 2-98B1A



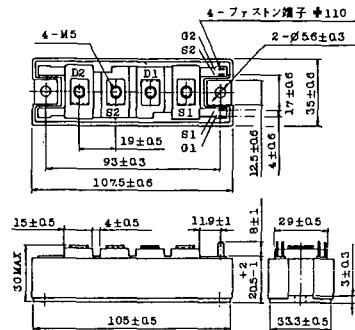
### 2-98C2A



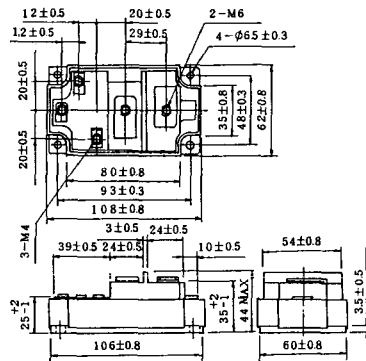
### 2-108A2A



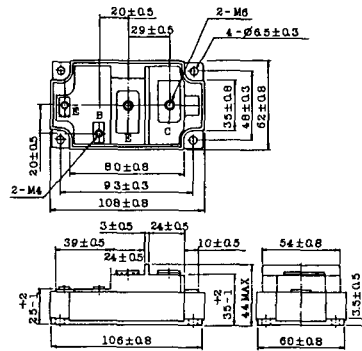
### 2-108B1A



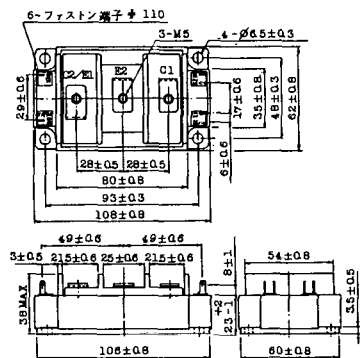
### 2-109A3A



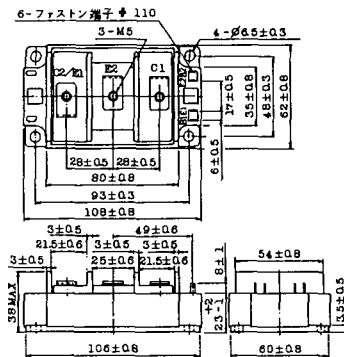
### 2-109A4A



### 2-109B3A

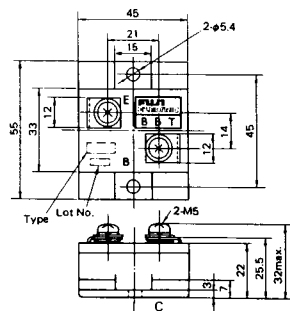


### 2-109B4A



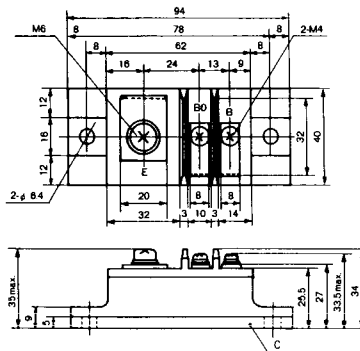
### BBT-II

BBTII  
1D200A-020



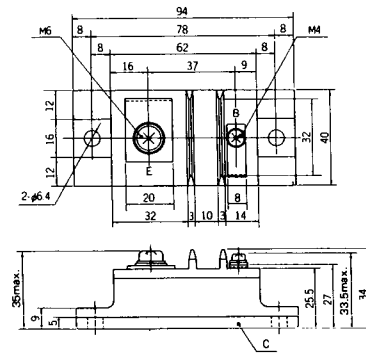
### BBT-III

BBTIII  
ETN31-055  
ETM36-030  
ETN36-030  
ETN35-030



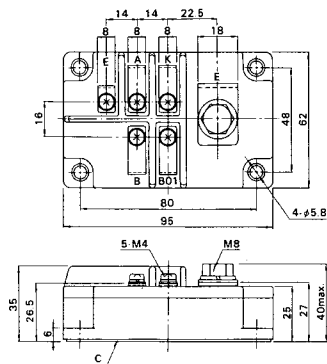
### BBT-III

BBTIII  
ETN01-055  
ET1257

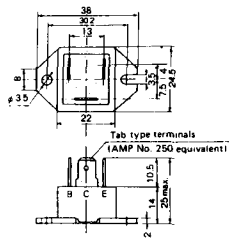


### BBT-IV

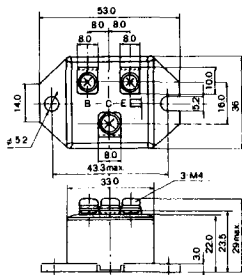
BBTIV  
1D500A-030



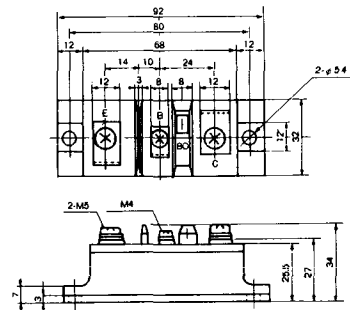
M-101



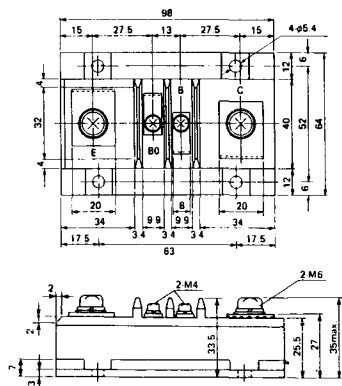
M-102



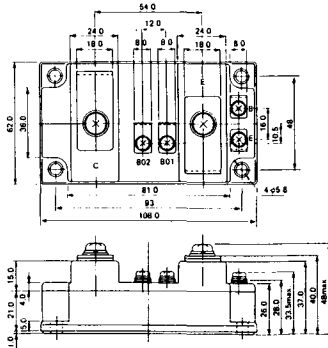
M-103



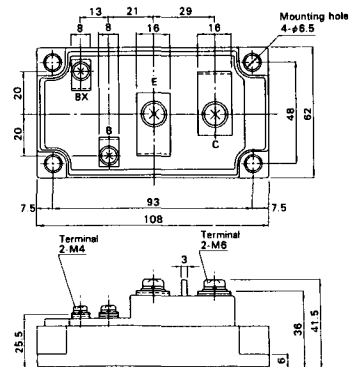
M-104



M-105

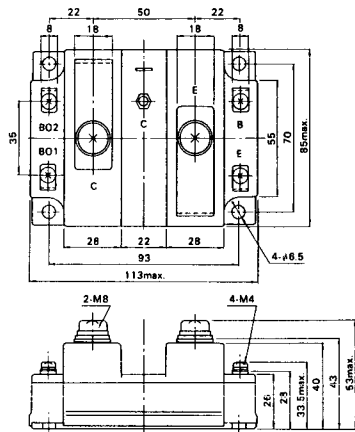


M-106

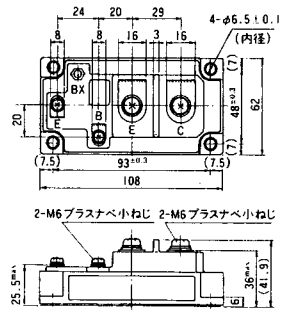




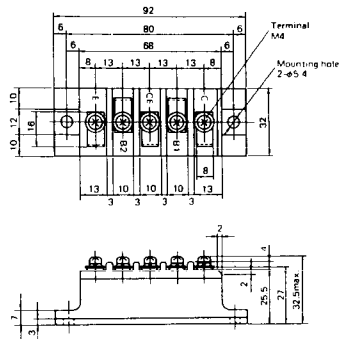
### M-107



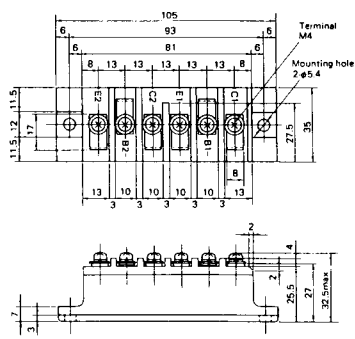
### M-116



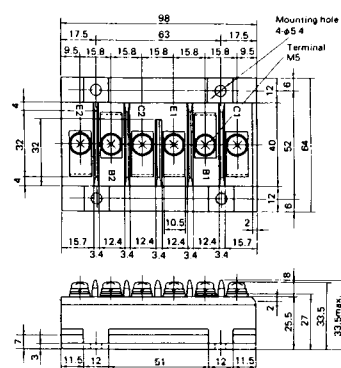
### M-201



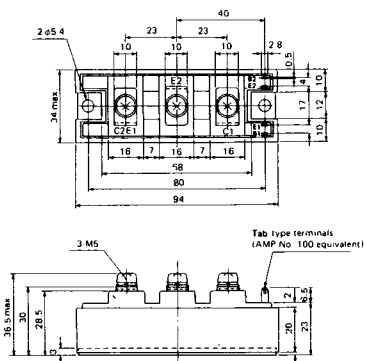
### M-202



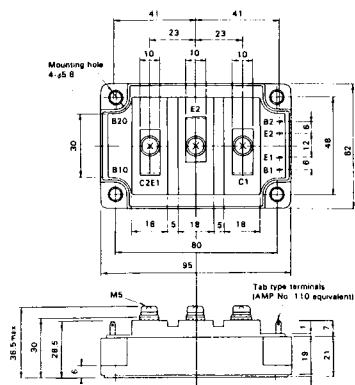
### M-203



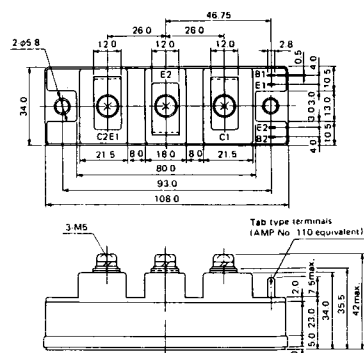
### M-204



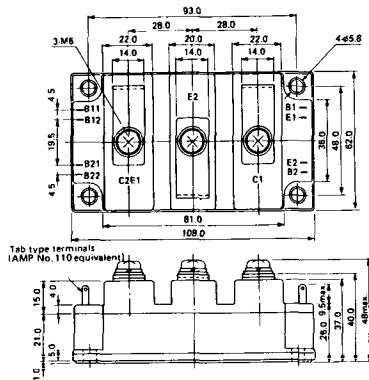
### M-205



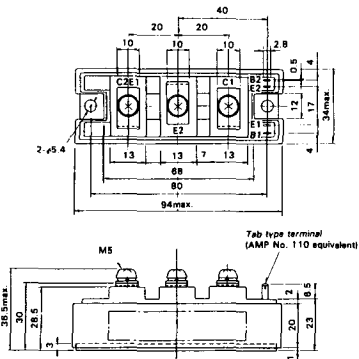
### M-206



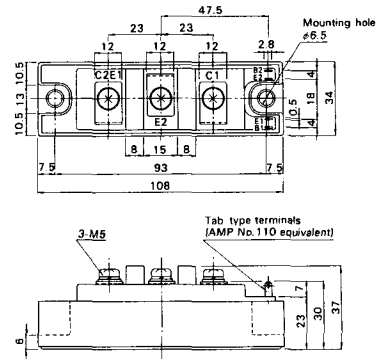
M-207



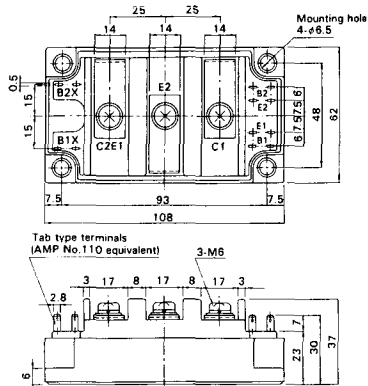
M-208



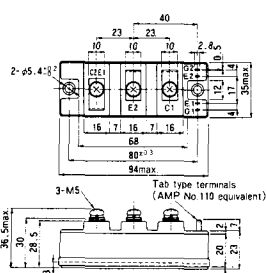
M-209



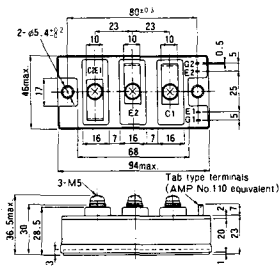
M-210



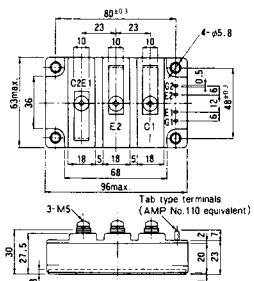
M-211



M-212

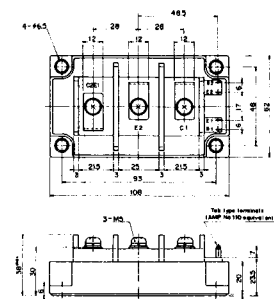


M-213

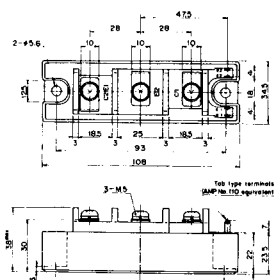


M-214

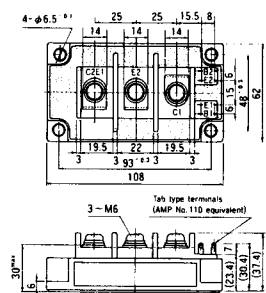
M-215



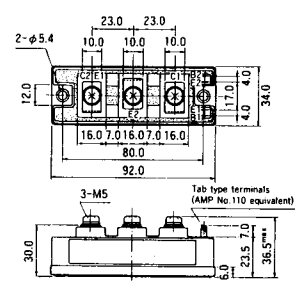
M-216



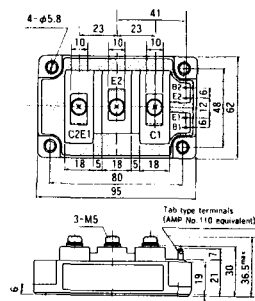
M-217



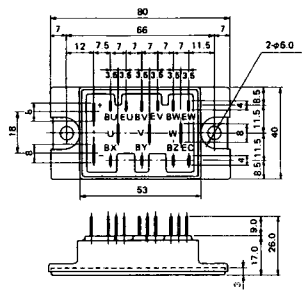
M-218



M-219



M-601



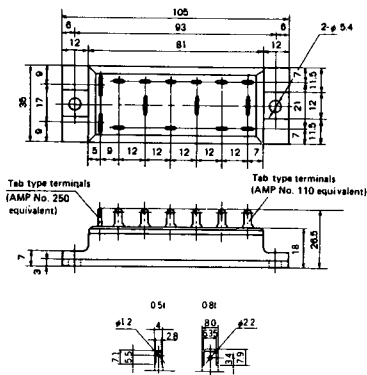
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



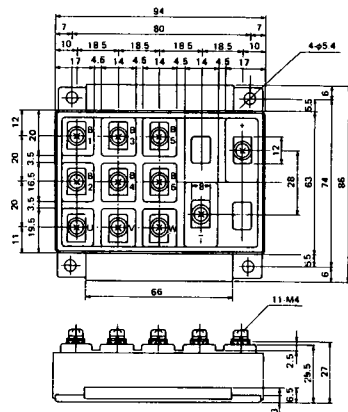
M-602



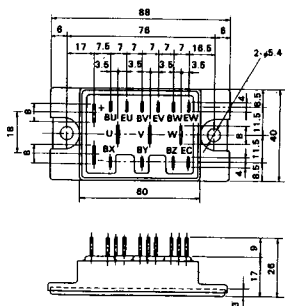
Tab type terminals  
(AMP No. 250 equivalent)

Tab type terminals  
(AMP No. 110 equivalent)

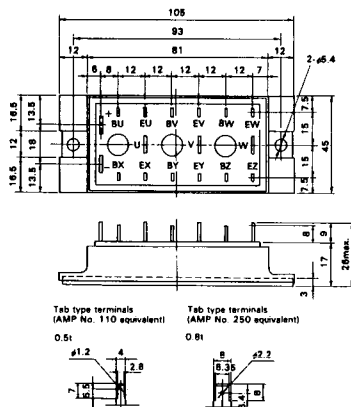
M-603



M-604



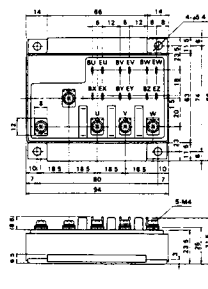
M-605



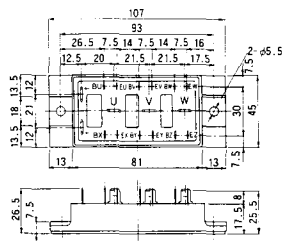
Tab type terminals  
(AMP No. 110 equivalent)

Tab type terminals  
(AMP No. 250 equivalent)

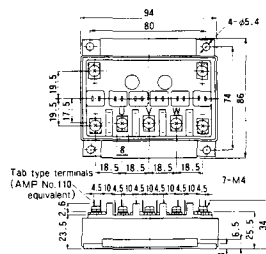
M-606



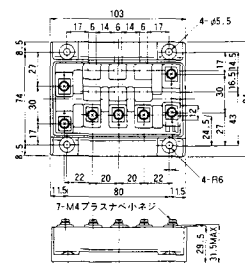
M-607



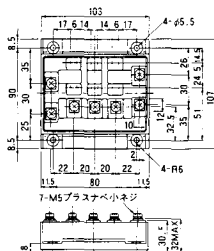
M-608



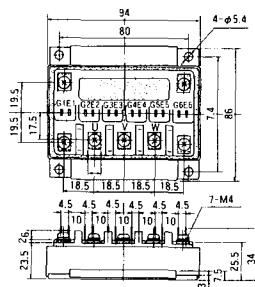
M-609



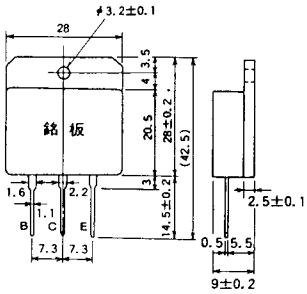
M-610



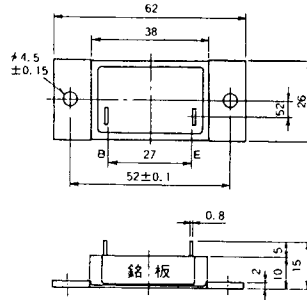
M-616



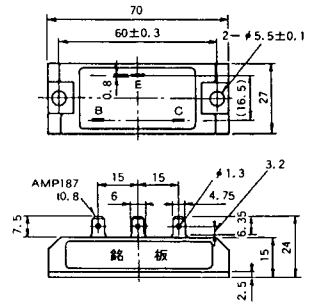
### M-1A1A



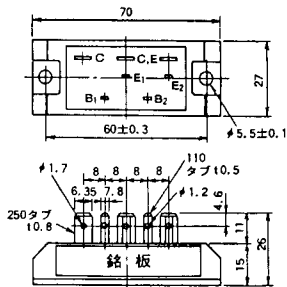
### M-2A1A



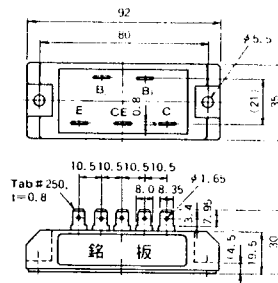
### M-2B1A



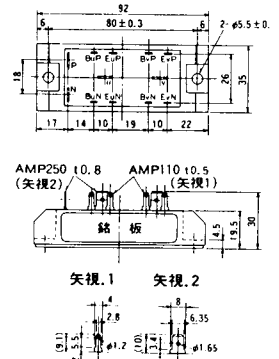
### M-2B2A



### M-2C2A

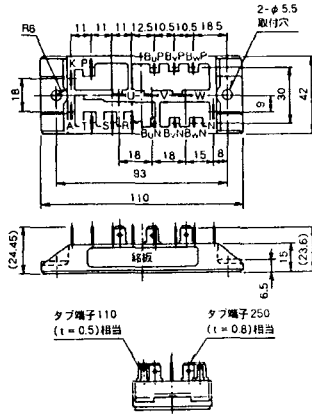


### M-2D4A

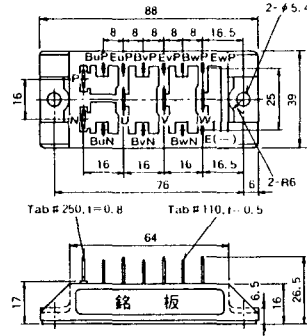




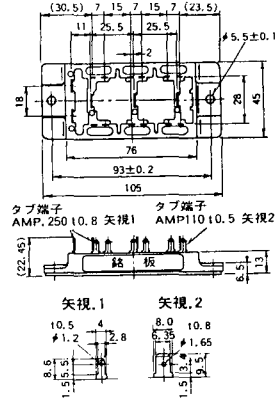
### M-2E6A



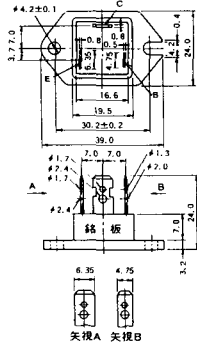
### M-2F6A



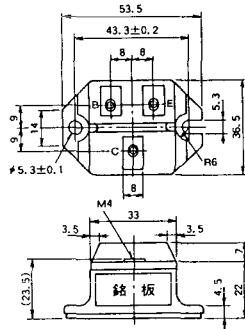
### M-2G6A



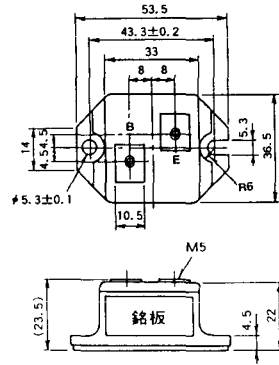
### M-3A1A



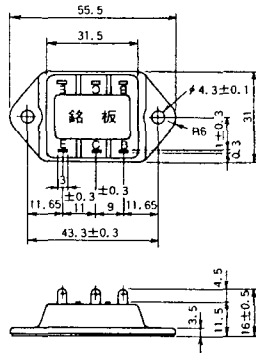
### M-3B1A



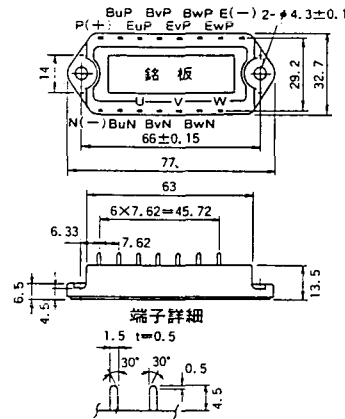
### M-3B1B



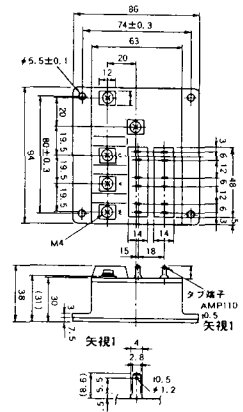
M-3C1A



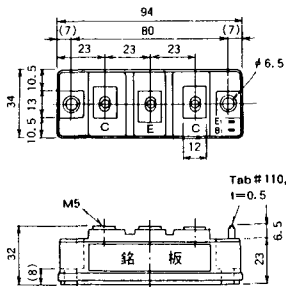
M-3D6A



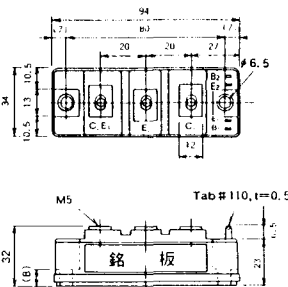
M-3E6A



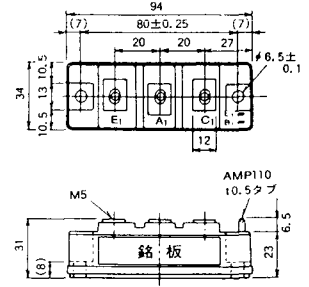
M-4A1A



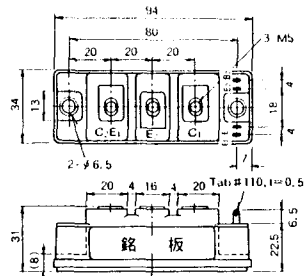
M-4A2A



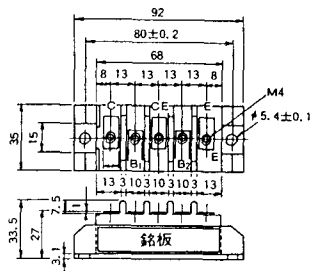
M-4A1B



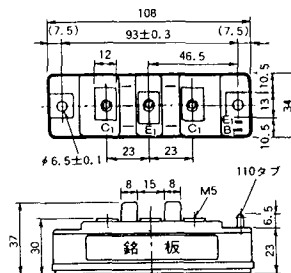
M-4A2B



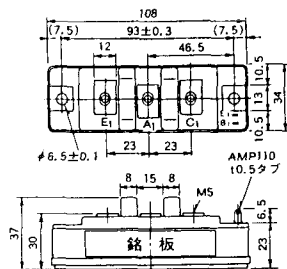
M-4B2A



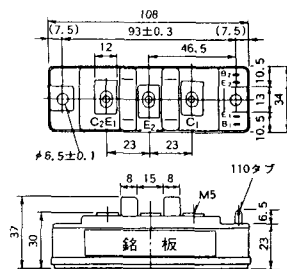
M-5A1A



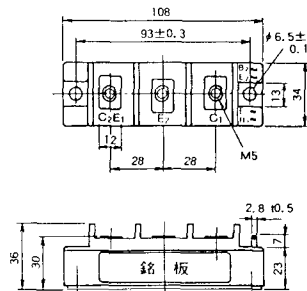
M-5A1B



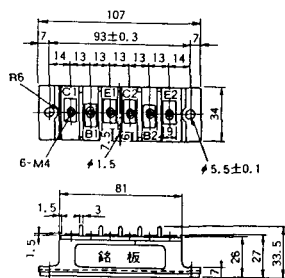
M-5A2A



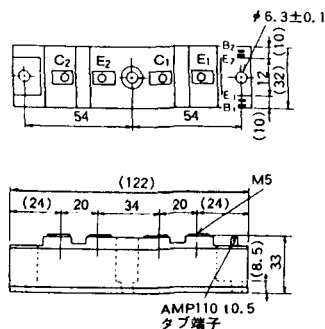
M-5B2A



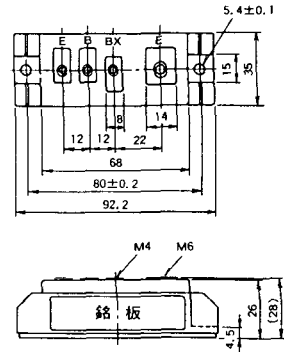
### M-5C2A



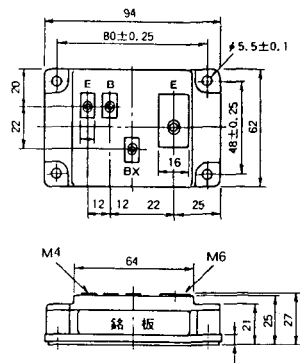
### M-5D2A



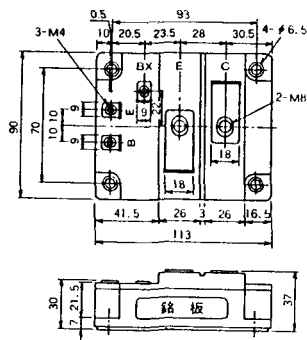
### M-6A1A



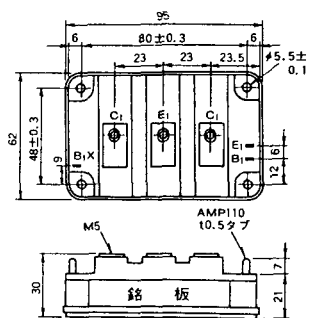
### M-7A1A



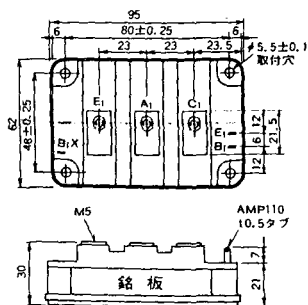
### M-7B1A



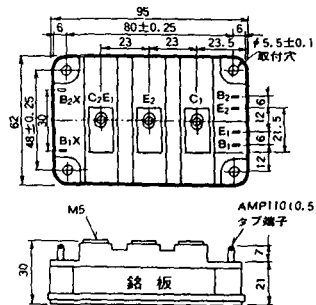
### M-8A1A



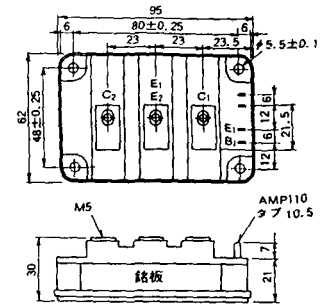
M-8A1B



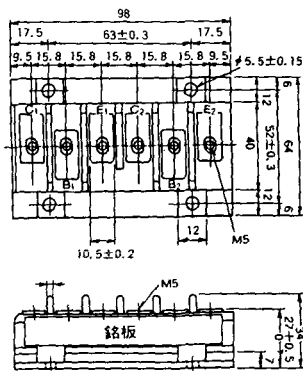
M-8A2A



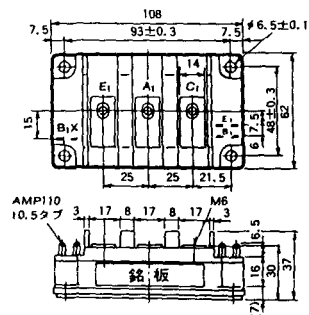
M-8A2B



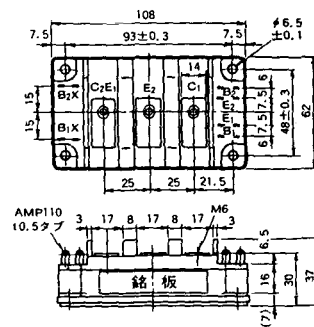
M-8B2A



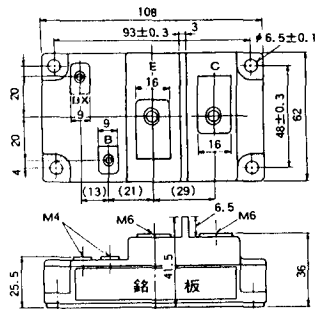
M-9A1A



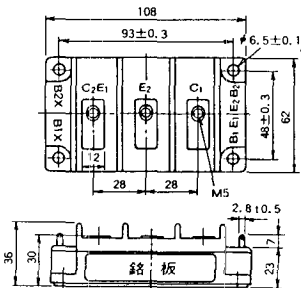
M-9A2A



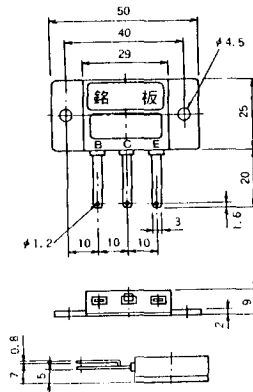
M-9B1A



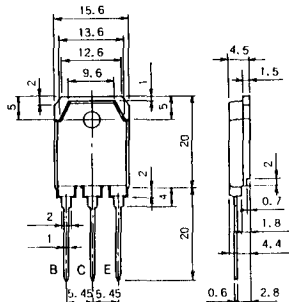
M-9C2A



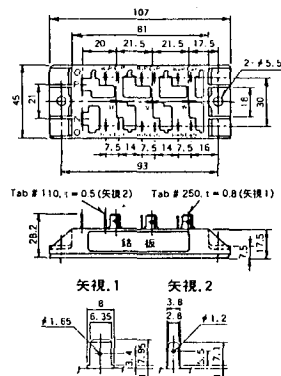
M-1A1B



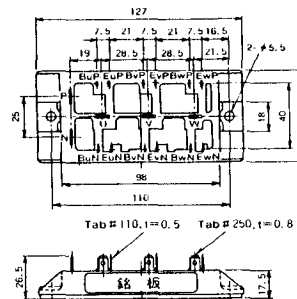
M-1A1C



M-2E6B

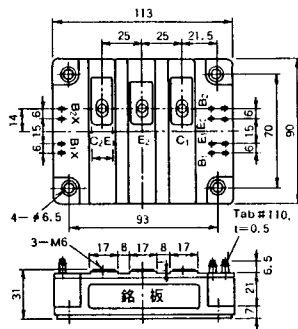


M-2E6C

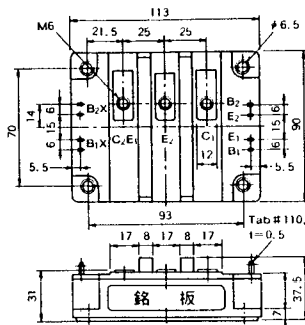




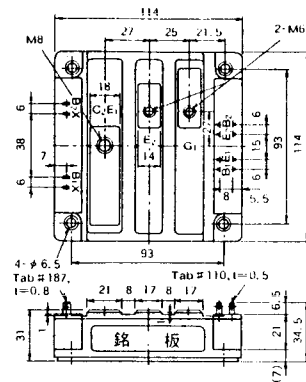
M-10A2A



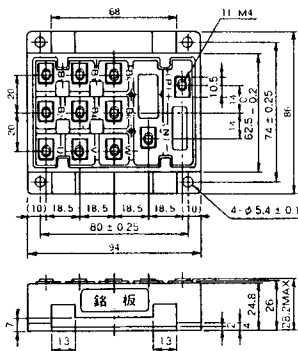
M-10A2B



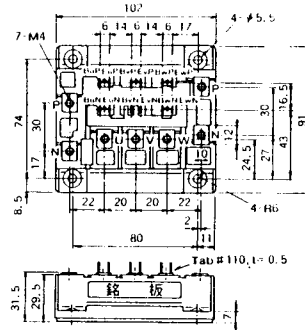
M-11A2A



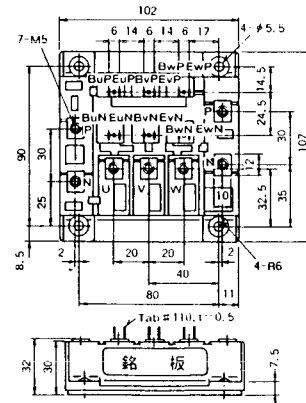
M-12A6A



M-12B6A

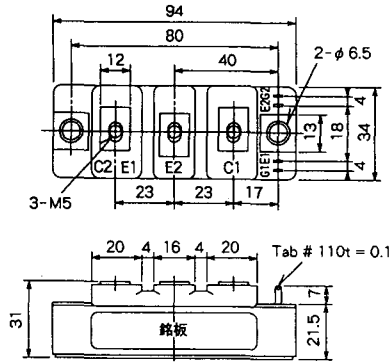


M-12B6B

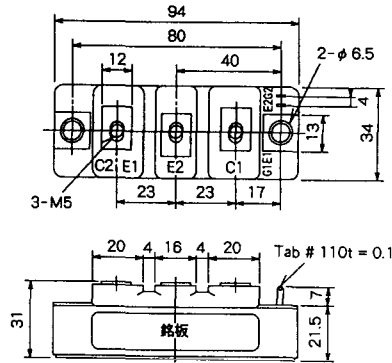




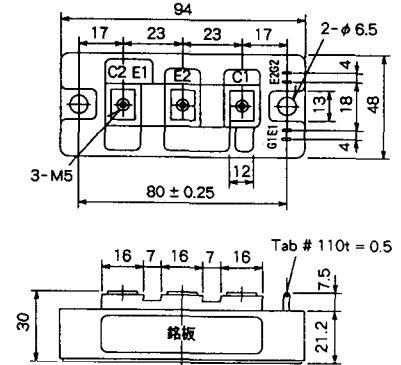
M-4A2D



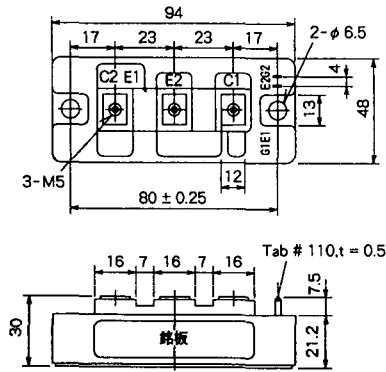
M-4A2E



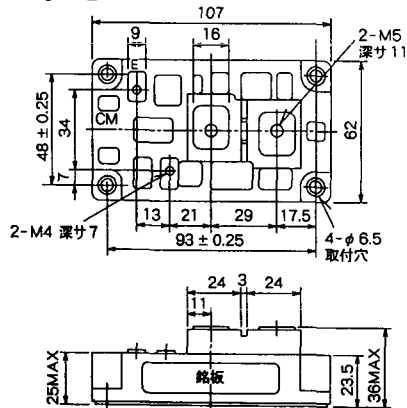
M-4C2A



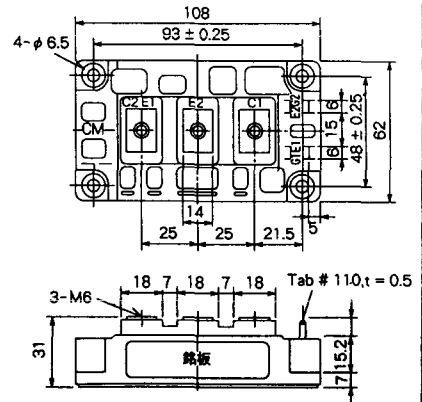
M-4C2B



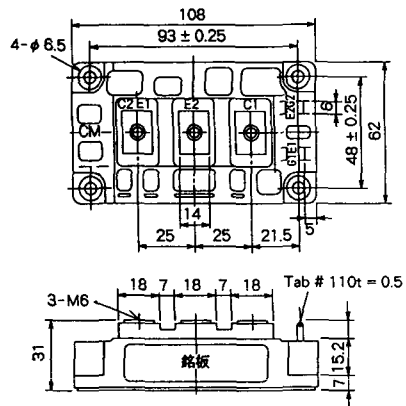
M-9B1C



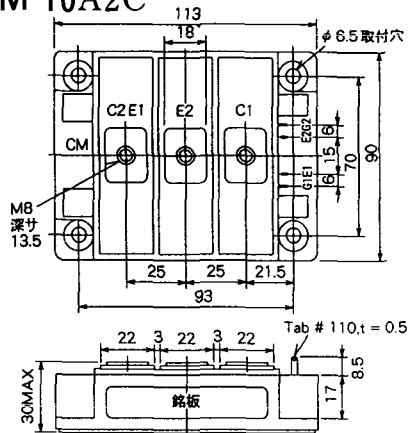
M-9D2A



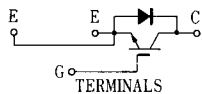
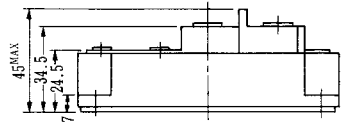
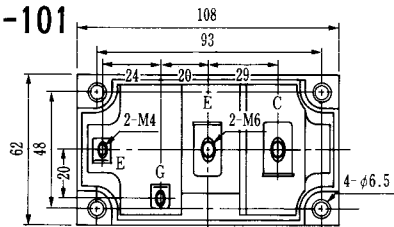
M-9D2B



M-10A2C

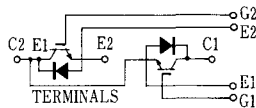
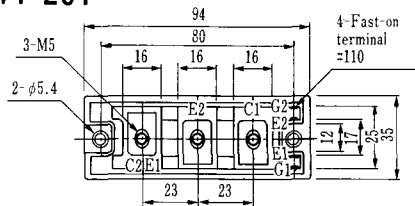


H-101



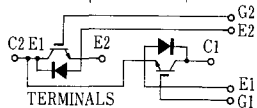
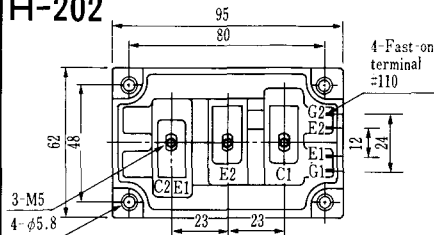
Weight :480g

### H-201



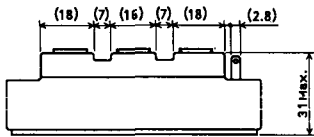
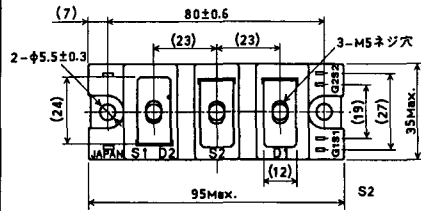
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

