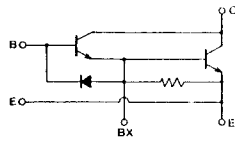
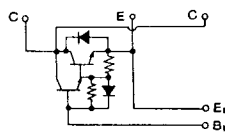


トランジスタ・モジュール (NPN, 1アーム)

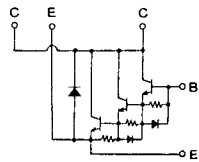
HD 1A



HY-1A



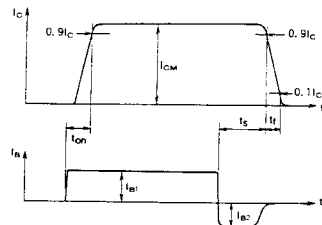
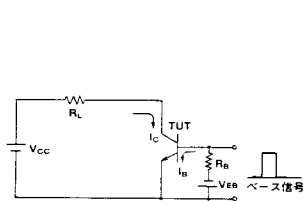
HY-2A



注1.  $I_c = 1A$ ,  $V_{EB} = 2V$ , #印は $V_{CEX}$  ( $V_{EB} = 2V$ )。 注2. 60Hz, 単相半波1サイクル波高値。 注3.  $T_c = 25^\circ C$ 。 注4. A.C. 1分間。

| 型名          | 最大定格 (T <sub>J</sub> = 25°C) |                        |                  |                |                |                |                 |                |                |                  |                  | 電気的特性            |                     |                     |     |                        |    |                    |        |                     |                    |
|-------------|------------------------------|------------------------|------------------|----------------|----------------|----------------|-----------------|----------------|----------------|------------------|------------------|------------------|---------------------|---------------------|-----|------------------------|----|--------------------|--------|---------------------|--------------------|
|             | V <sub>CEO</sub>             | V <sub>CEX</sub> (SUS) | V <sub>EB0</sub> | I <sub>c</sub> | I <sub>B</sub> | I <sub>F</sub> | I <sub>FM</sub> | P <sub>c</sub> | T <sub>J</sub> | T <sub>stg</sub> | V <sub>iso</sub> | I <sub>CEX</sub> |                     | I <sub>EB0</sub>    |     | V <sub>CEO</sub> (SUS) |    | h <sub>FE</sub>    |        |                     |                    |
|             | (V)                          | (V)                    | (V)              | (A)            | (A)            | (A)            | (A)             | (W)            | (°C)           | (°C)             | (V)              | 最大               | V <sub>CE</sub> (V) | V <sub>EB</sub> (V) | 最大  | V <sub>EB</sub> (V)    | 最小 | I <sub>c</sub> (A) | 最小     | V <sub>CE</sub> (V) | I <sub>c</sub> (A) |
| QM200HA-H   | 600                          | 600                    | 7                | 200            | 12             | 200            | 2000            | 1250           | 150            | -40~125          | 2500             | 4                | 600                 | 2                   | 200 | 7                      |    |                    | 75/100 | 2/5                 | 200                |
| QM200HA-2H  | 1000                         | 1000                   | 7                | 200            | 10             | 200            | 2000            | 1560           | 150            | -40~125          | 2500             | 4                | 1000                | 2                   | 800 | 7                      |    |                    | 75/100 | 2.8/5               | 200                |
| QM200HA-2.4 | 1200                         | 1200                   | 7                | 200            | 10             | 200            | 2000            | 1560           | 150            | -40~125          | 2500             | 4                | 1200                | 2                   | 800 | 7                      |    |                    | 75     | 5                   | 200                |
| QM200HC-M   | 400                          | 350                    | 10               | 200            | 6.0            | 200            | 2000            | 830            | 150            | -40~125          | -                | 1                | 350                 | 2                   | 400 | 10                     |    |                    | 100    | 2                   | 200                |
| QM300HA-H   | 600                          | 600                    | 7                | 300            | 18             | 300            | 3000            | 1380           | 150            | -40~125          | 2500             | 4                | 600                 | 2                   | 300 | 7                      |    |                    | 75/100 | 2/5                 | 300                |
| QM300HA-2H  | 1000                         | 1000                   | 7                | 300            | 16             | 300            | 3000            | 1980           | 150            | -40~125          | 2500             | 4                | 1000                | 2                   | 400 | 7                      |    |                    | 75/100 | 2.8/5               | 300                |
| QM300HA-2.4 | 1200                         | 1200                   | 7                | 300            | 16             | 300            | 3000            | 1980           | 150            | -40~125          | 2500             | 4                | 1200                | 2                   | 400 | 7                      |    |                    | 75     | 5                   | 300                |
| QM300HC-M   | 400                          | 350                    | 10               | 300            | 10             | 300            | 3000            | 1250           | 150            | -40~125          | -                | 2                | 350                 | 2                   | 600 | 10                     |    |                    | 100    | 2                   | 300                |
| QM400HA-H   | 600                          | 600                    | 7                | 400            | 10             | 400            | 4000            | 1500           | 150            | -40~125          | 2500             | 5                | 600                 | 2                   | 400 | 7                      |    |                    | 750    | 2.5                 | 400                |
| QM400HA-2H  | 1000                         | 1000                   | 7                | 400            | 20             | 400            | 4000            | 3120           | 150            | -40~125          | 2500             | 8                | 1000                | 2                   | 600 | 7                      |    |                    | 75/100 | 2.8/5               | 400                |
| QM400HA-2.4 | 1200                         | 1200                   | 7                | 400            | 20             | 400            | 4000            | 3120           | 150            | -40~125          | 2500             | 8                | 1200                | 2                   | 600 | 7                      |    |                    | 75     | 5                   | 400                |
| QM500HA-H   | 600                          | 600                    | 7                | 500            | 10             | 500            | 5000            | 1780           | 150            | -40~125          | 2500             | 5                | 600                 | 2                   | 500 | 7                      |    |                    | 750    | 2.5                 | 500                |
| QM600HA-2H  | 1000                         | 1000                   | 7                | 600            | 30             | 600            | 6000            | 3500           | 150            | -40~125          | 2500             | 8                | 1000                | 2                   | 800 | 7                      |    |                    | 75/100 | 2.8/5               | 600                |
| QM600HA-2.4 | 1200                         | 1200                   | 7                | 600            | 30             | 600            | 6000            | 3500           | 150            | -40~125          | 2500             | 8                | 1200                | 2                   | 800 | 7                      |    |                    | 75     | 5                   | 600                |
| QM600HD-M   | 400                          | 350                    | 10               | 600            | 15             |                |                 | 2080           | 150            | -40~125          | 2500             | 2                | 350                 | 2                   | 800 | 10                     |    |                    | 500    | 2                   | 600                |

■スイッチング時間測定回路



| (T <sub>J</sub> =25°C) |                 |                |                |                 |                  |                |                 |                 |                 |                | エミッタ・コレクタ間ダイオード    |                    |                      |                |                     | 熱抵抗          |                         | 等価回路  | 外形図   | 記事     | 型名         |            |
|------------------------|-----------------|----------------|----------------|-----------------|------------------|----------------|-----------------|-----------------|-----------------|----------------|--------------------|--------------------|----------------------|----------------|---------------------|--------------|-------------------------|-------|-------|--------|------------|------------|
| 飽和電圧 (V)               |                 | I <sub>c</sub> | I <sub>B</sub> | スイッチング時間 (μs)   |                  |                | I <sub>B1</sub> | I <sub>B2</sub> | V <sub>cc</sub> | I <sub>c</sub> | V <sub>F</sub> (V) | I <sub>F</sub> (A) | t <sub>rr</sub> (μs) | I <sub>F</sub> | V <sub>BE</sub> (V) | di/dt (A/μs) | θ <sub>J-C</sub> (°C/W) |       |       |        |            |            |
| V <sub>CE</sub>        | V <sub>BE</sub> |                |                | t <sub>on</sub> | t <sub>sig</sub> | t <sub>r</sub> |                 |                 |                 |                |                    |                    |                      |                |                     |              | トランジスタ部                 |       |       |        |            | ダイオード部     |
| 最大                     | 最大              | (A)            | (A)            | 最大              | 最大               | 最大             | (A)             | (A)             | (V)             | (A)            | 最大                 | (A)                | 最大                   | (V)            | (A/μs)              | 最大           | 最大                      |       |       |        |            |            |
| 2.0                    | 2.5             | 200            | 2.6            | 2.0             | 12               | 3.0            | 4.0             | -4.0            | 600             | 200            | 1.75               | 200                |                      |                |                     |              | 0.1                     | 0.39  | HA-1C | M-8A1A | UL認定済      | QM200HA-H  |
| 2.5                    | 3.5             | 200            | 4.0            | 3.0             | 15               | 3.0            | 4.0             | -4.0            | 600             | 200            | 1.8                | 200                |                      |                |                     |              | 0.08                    | 0.35  | HA-2B | M-9B1A | UL認定済      | QM200HA-2H |
| 3.0                    | 3.5             | 200            | 4.0            | 3.0             | 15               | 3.0            | 4.0             | -4.0            | 600             | 200            | 1.8                | 200                |                      |                |                     |              | 0.08                    | 0.35  | HA-2B | M-9B1A | UL認定済      | QM200HA-24 |
| 2.0                    | 2.5             | 200            | 2.0            | 2.0             | 10               | 3.0            | 4.0             | -4.0            | 200             | 200            | 1.5                | 200                |                      |                |                     |              | 0.15                    | 0.25  | HC-1B | M-6A1A | 非絶縁形       | QM200HC-M  |
| 2.0                    | 2.5             | 300            | 4.0            | 2.5             | 12               | 3.0            | 6.0             | -6.0            | 300             | 300            | 1.85               | 300                |                      |                |                     |              | 0.09                    | 0.3   | HA-1B | M-9B1A | UL認定済      | QM300HA-H  |
| 2.5                    | 3.5             | 300            | 6.0            | 3.0             | 15               | 3.0            | 6.0             | -6.0            | 600             | 300            | 1.85               | 300                |                      |                |                     |              | 0.063                   | 0.3   | HA-2B | M-9B1A | UL認定済      | QM300HA-2H |
| 3.0                    | 3.5             | 300            | 6.0            | 3.0             | 15               | 3.0            | 6.0             | -6.0            | 600             | 300            | 1.8                | 300                |                      |                |                     |              | 0.063                   | 0.3   | HA-2B | M-9B1A | UL認定済      | QM300HA-24 |
| 2.0                    | 2.5             | 300            | 3.0            | 2.0             | 10               | 3.0            | 6.0             | -6.0            | 200             | 300            | 1.85               | 300                |                      |                |                     |              | 0.1                     | 0.25  | HA-1A | M-7A1A | 非絶縁形       | QM300HC-M  |
| 2.5                    | 3.5             | 400            | 0.53           | 3.0             | 10               | 3.5            | 0.8             | -8.0            | 300             | 400            | 1.8                | 400                |                      |                |                     |              | 0.083                   | 0.25  | HA-2C | M-7A1A | UL認定済      | QM400HA-H  |
| 2.5                    | 3.5             | 400            | 8.0            | 3.0             | 16               | 3.0            | 8.0             | -8.0            | 600             | 400            | 1.8                | 400                |                      |                |                     |              | 0.04                    | 0.175 | HA-2C | M-7B1A | UL認定済      | QM400HA-2H |
| 3.0                    | 3.5             | 400            | 8.0            | 3.0             | 18               | 3.0            | 8.0             | -8.0            | 600             | 400            | 1.8                | 400                |                      |                |                     |              | 0.04                    | 0.175 | HA-2C | M-7B1A | UL認定済      | QM400HA-24 |
| 2.5                    | 3.5             | 500            | 0.76           | 3.0             | 10               | 3.5            | 1.0             | -10             | 300             | 500            | 1.8                | 500                |                      |                |                     |              | 0.07                    | 0.25  | HA-2C | M-7A1B | UL認定済      | QM500HA-H  |
| 2.5                    | 3.5             | 600            | 12             | 3.0             | 16               | 3.0            | 12              | -12             | 600             | 600            | 1.8                | 600                |                      |                |                     |              | 0.035                   | 0.16  | HA-2C | M-7C1A | UL認定済      | QM600HA-2H |
| 3.0                    | 3.5             | 600            | 12             | 3.0             | 16               | 3.0            | 12              | -12             | 600             | 600            | 1.8                | 600                |                      |                |                     |              | 0.035                   | 0.16  | HA-2C | M-7C1A | UL認定済      | QM600HA-24 |
| 2.0                    | 2.5             | 600            | 1.2            | 3.0             | 15               | 3.0            | 2.0             | -4.0            | 200             | 600            |                    |                    |                      |                |                     |              | 0.06                    |       | HD-1A | M-7A1A | 非絶縁形, FDなし | QM600HD-M  |

FD-1



FD-2



FD-3



FD-4



FD-5



FD-6



FD-7



FD-8



FD-9



FD-10



FD-11

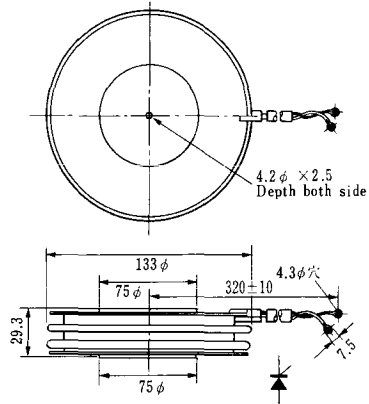
FD-12





《寸法図単位：mm》

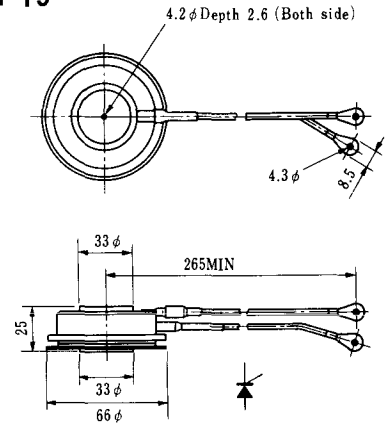
### H-17



### H-18



### H-19



### H-20



### H-21



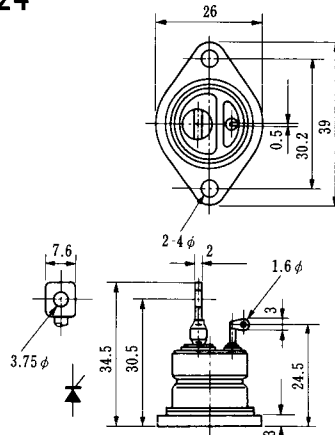
### H-22



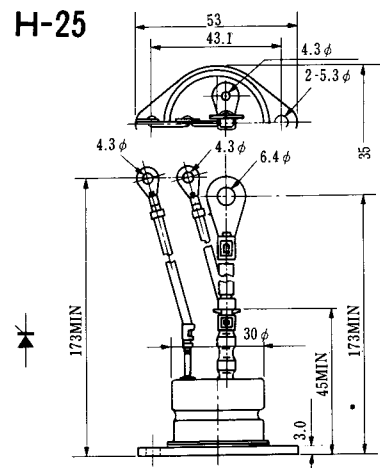
### H-23



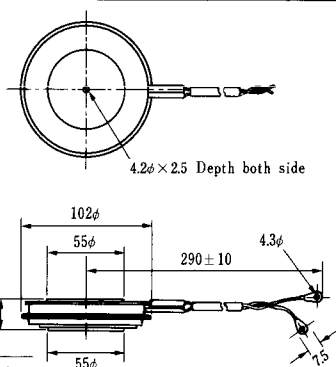
### H-24



### H-25



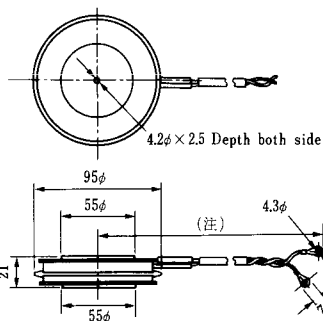
### H-26



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

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

### H-27

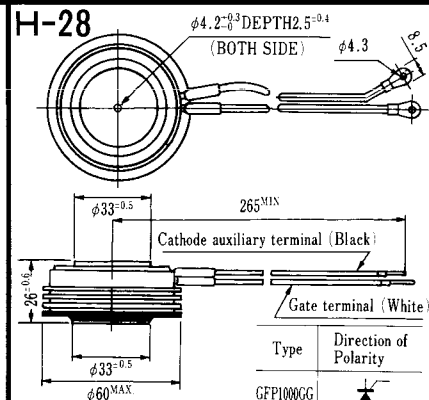


| Type | Direction of polarity |
|------|-----------------------|
|------|-----------------------|

|       |  |
|-------|--|
| 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.



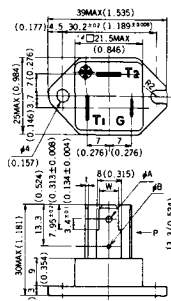


Note: The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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

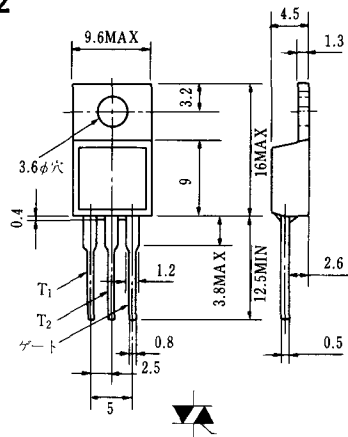
# HT-1



| TERMINAL       | t                          | W                         | φA  | φB             |
|----------------|----------------------------|---------------------------|---|----------------|
| T <sub>1</sub> | 0.8±0.025<br>(0.031±0.001) | 6.35±0.1<br>(0.250±0.004) | 2.00 <sup>+0.1</sup> <sub>-0</sub> ±0.04<br>(0.079 <sup>+0.001</sup> <sub>0</sub> ±0.004) | 1.3<br>(0.051) |
| T <sub>2</sub> | 0.8±0.025<br>(0.031±0.001) | 6.35±0.1<br>(0.250±0.004) | 2.00 <sup>+0.1</sup> <sub>-0</sub> ±0.04<br>(0.079 <sup>+0.001</sup> <sub>0</sub> ±0.004) | 1.3<br>(0.051) |
| G              | 0.5±0.025<br>(0.020±0.001) | 4.75±0.1<br>(0.187±0.004) | 1.55 <sup>+0.1</sup> <sub>-0</sub> ±0.04<br>(0.061 <sup>+0.001</sup> <sub>0</sub> ±0.004) | 1.3<br>(0.051) |

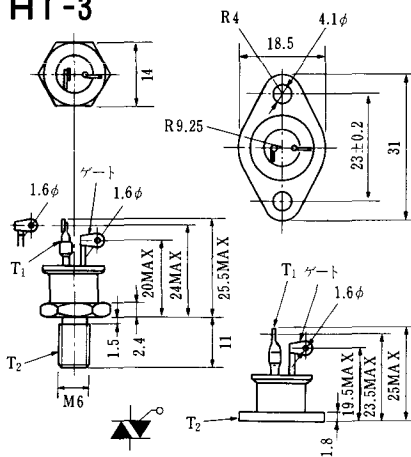
Unit in mm(.inch)

# HT-2

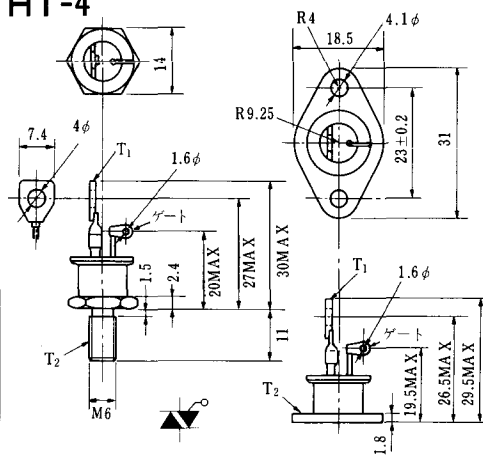


### リード加工標準寸法

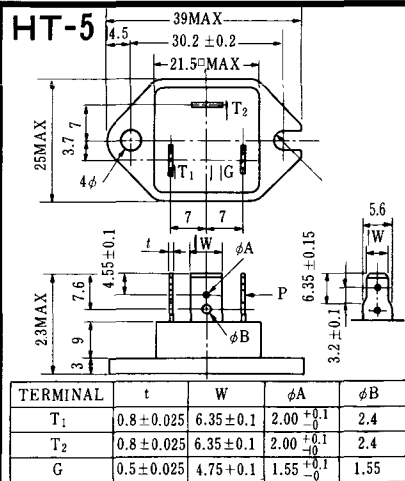
# HT-3



# HT-4



# HT-5



| TERMINAL       | t         | W        | φA                                 | φB   |
|----------------|-----------|----------|------------------------------------|------|
| T <sub>1</sub> | 0.8±0.025 | 6.35±0.1 | 2.00 <sup>+0.1</sup> <sub>-0</sub> | 2.4  |
| T <sub>2</sub> | 0.8±0.025 | 6.35±0.1 | 2.00 <sup>+0.1</sup> <sub>-0</sub> | 2.4  |
| G              | 0.5±0.025 | 4.75±0.1 | 1.55 <sup>+0.1</sup> <sub>-0</sub> | 1.55 |

〈寸法図単位: mm〉

### 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



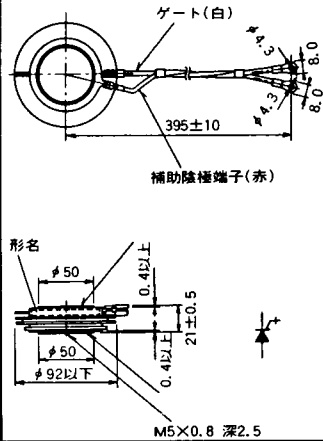
M-26



M-27



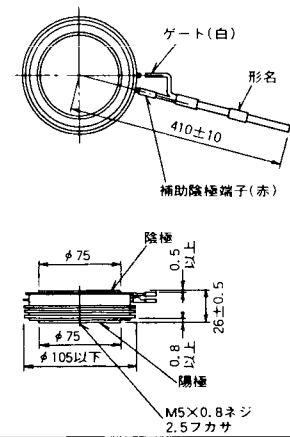
M-28



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



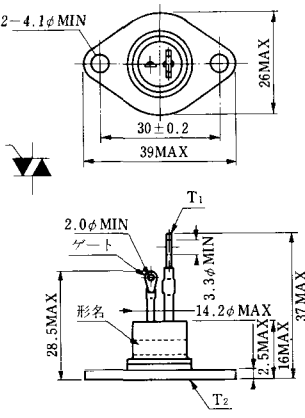
MT-11



MT-12



MT-13



MT-14



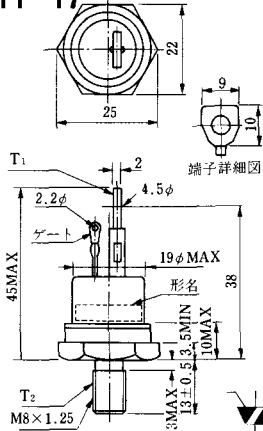
MT-15



MT-16



MT-17



MT-18



MT-19



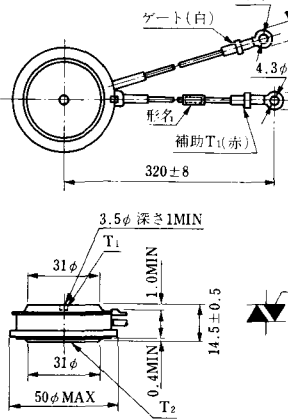
MT-20



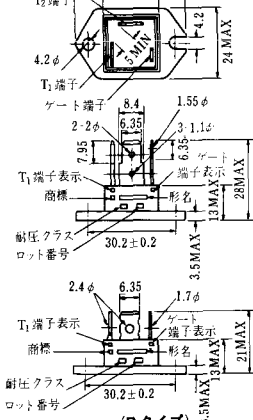
MT-21



MT-22



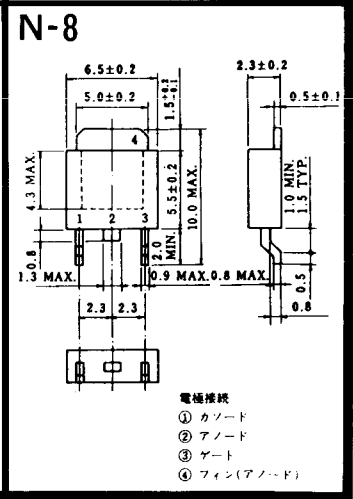
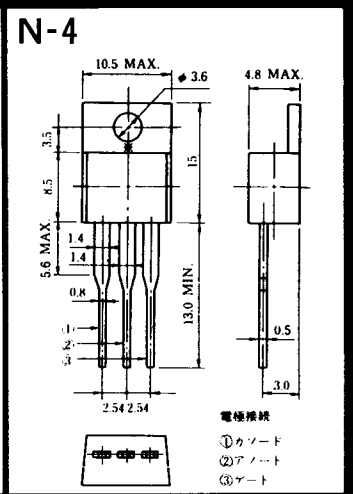
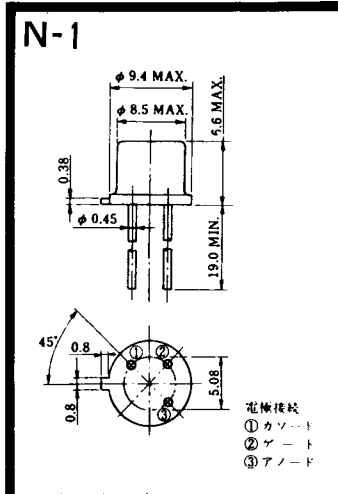
MT-23



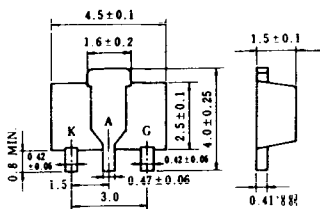
# MT-24



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



N-9



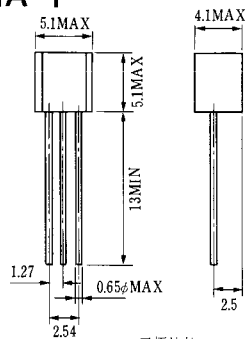
電極標紙

K : カソード

A : アノード

G : ゲート

### NA-1

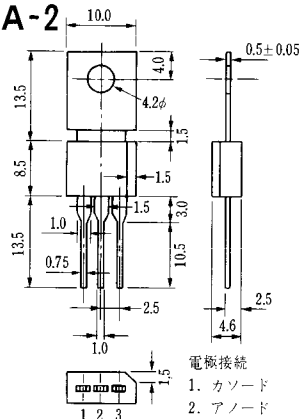


電極接続

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



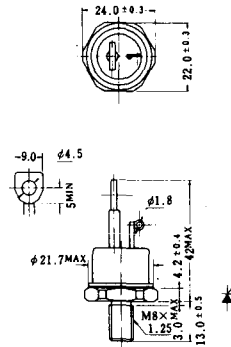
### NI-2

29RD



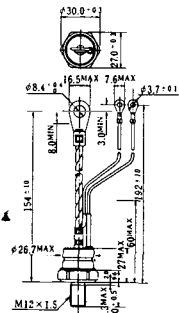
### NI-3

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



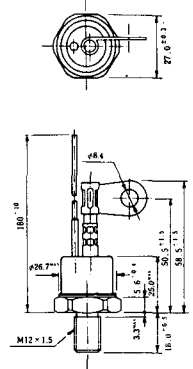
### NI-7

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



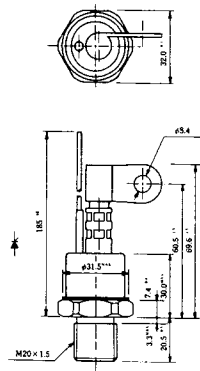
### NI-8

89RW  
129RW



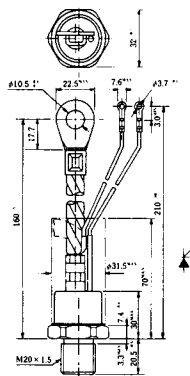
### NI-9

259RW  
309RW



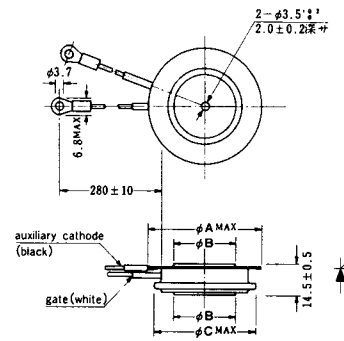
### NI-10

259RW<sub>J</sub>L  
309RW<sub>J</sub>L



### NI-11

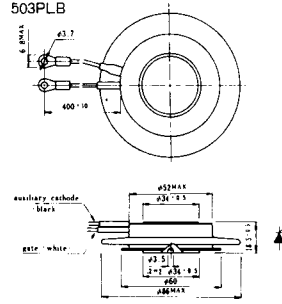
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



| 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  |

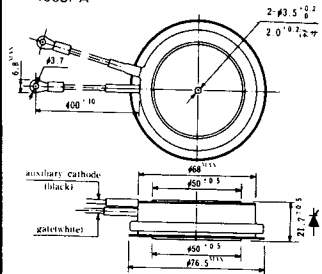
### NI-12

403PAB  
503PAB  
503PLB



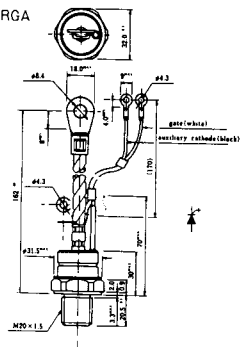
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



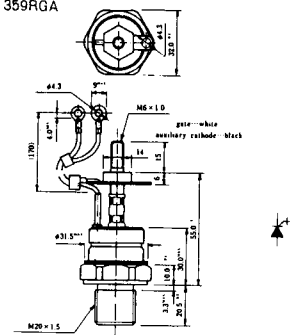
### NI-14

358RGA



### NI-15

359RGA







NI-24

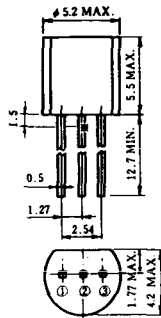
2001PGB<sup>r</sup> JE



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

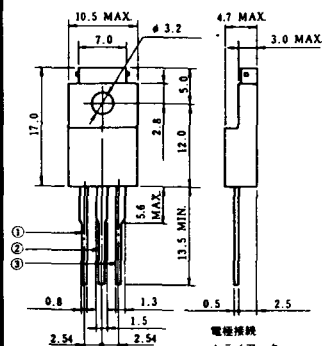
### NT-5



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



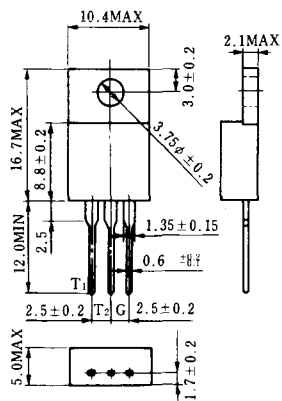
電極接続

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

### S-1



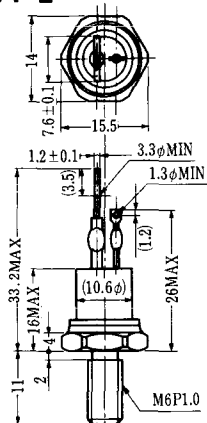
### ST-1



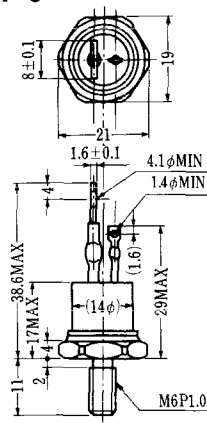
SA-1



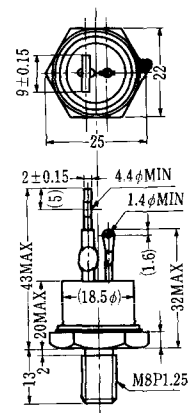
SA-2



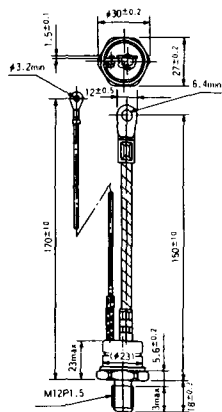
SA-3



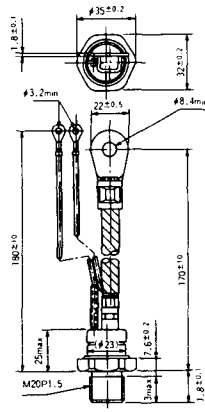
SA-4



SA-5



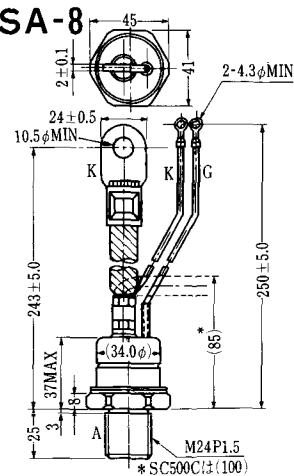
SA-6



SA-7



SA-8

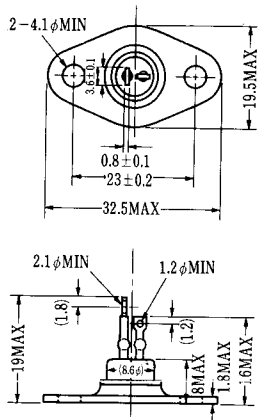


### SA-9

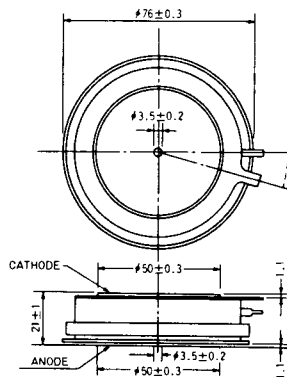


A TAB250(T) 6.35 T 8.25 I 0.8  
 K TAB250(T) 6.35 T 8.25 I 0.8  
 G TAB187(T) 4.75 T 5.7 I 0.5

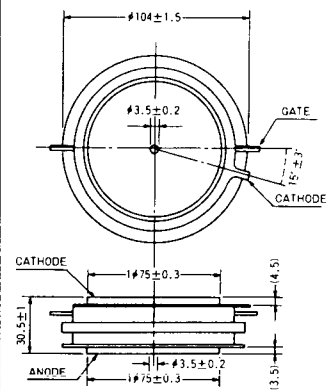
### SA-10



### SA-11



### SA-12



SAT-1



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

SAT-2



SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



SAT-9



SAT-10

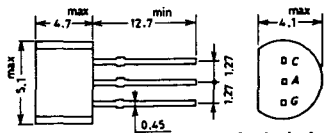


SAT-11





### 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



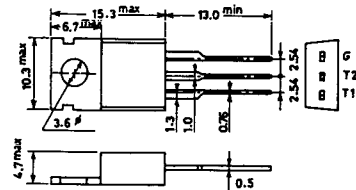
1142



1144



1155

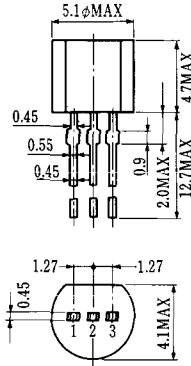


1192A



G: Gate

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



- 1 ゲート
- 2 アノード
- 3 カソード

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



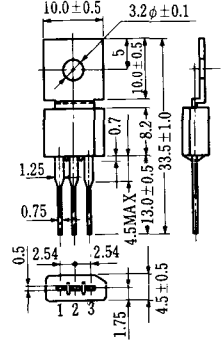
1. カソード
2. ゲート
3. アノード(ケース)

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



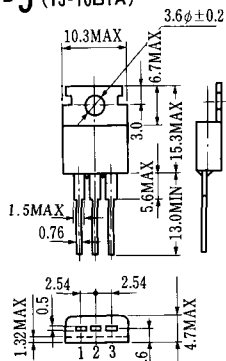
- 1 カソード
- 2 アノード
- 3 ゲート

**T-4 (13-10A1A)**



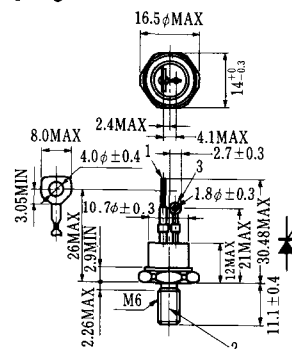
- 1 カソード
- 2 アノード
- 3 ゲート

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



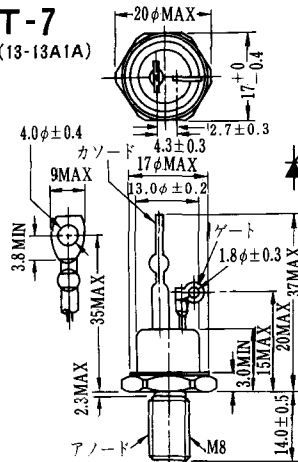
- 1 カソード
- 2 アノード
- 3 ゲート

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



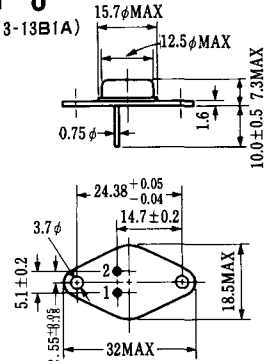
- 1 カソード
- 2 アノード
- 3 ゲート

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



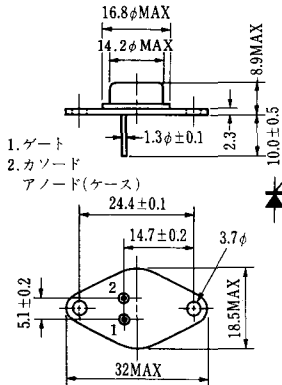
- 1 カソード
- 2 アノード
- 3 ゲート

**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)



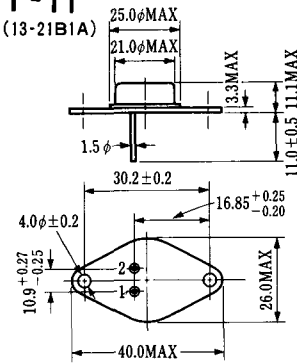
1. ゲート
2. カソード
- アノード(ケース)

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



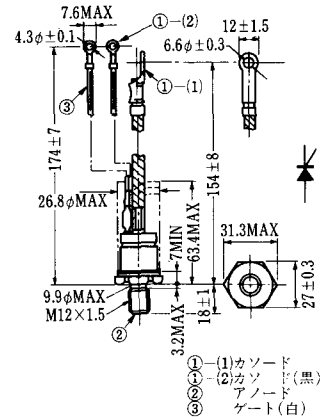
1. カソード
2. アノード
3. ゲート

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



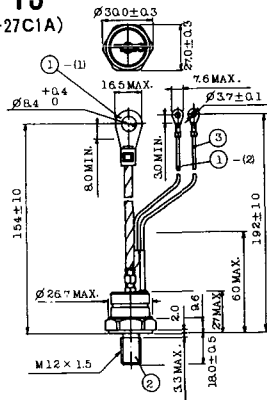
1. ゲート
2. カソード
- アノード(ケース)

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



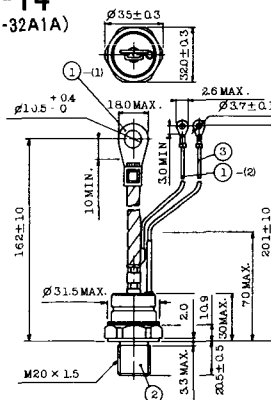
- ①(1) カソード
- ①(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



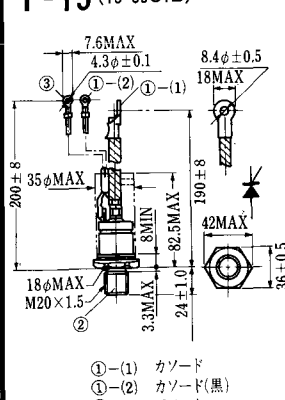
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



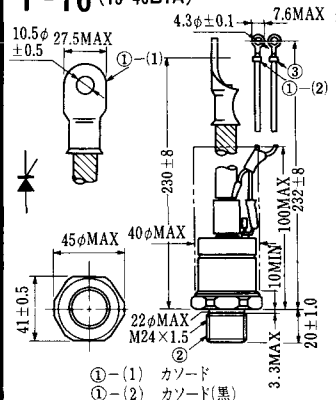
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

### 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)



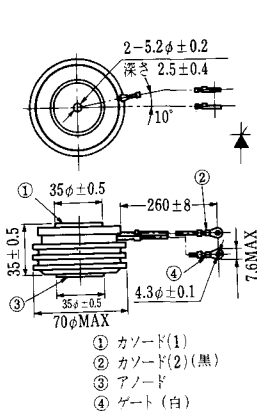
T-20 (13-52C1A)



T-21 (13-60A1A)



T-22 (13-70C1A)



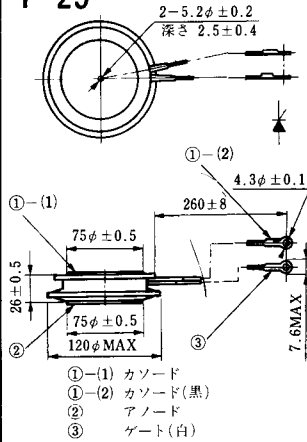
T-23 (13-78A1A)



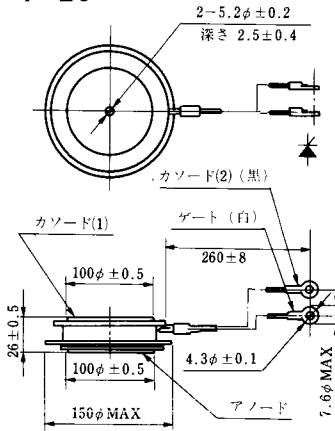
T-24 (13-100C1A)



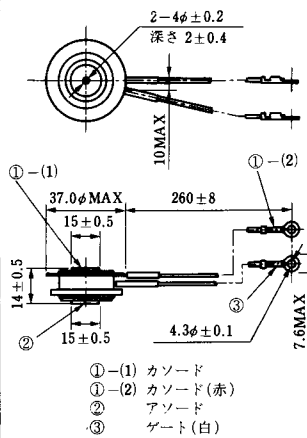
**T-25** (13-120A2A)



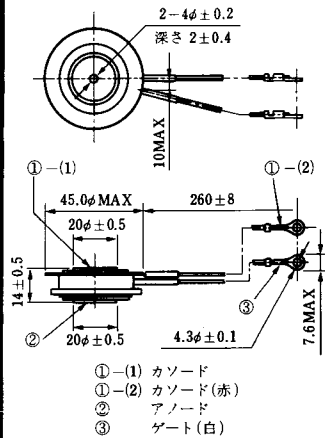
**T-26** (13-150A1A)



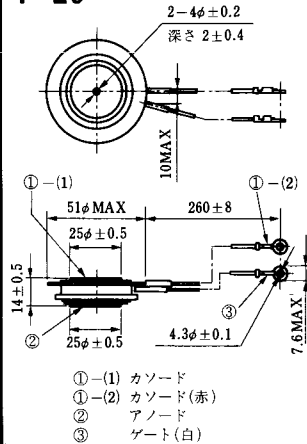
**T-27** (13-37A1A)



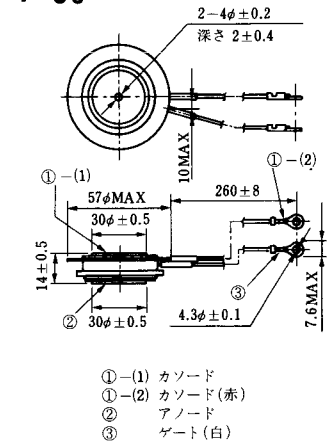
**T-28** (13-45E1A)



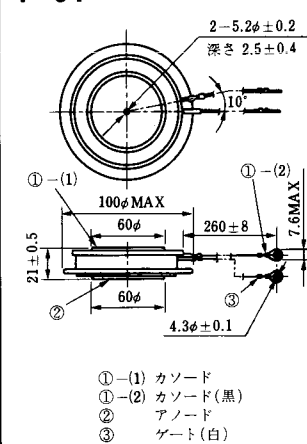
**T-29** (13-51A1A)



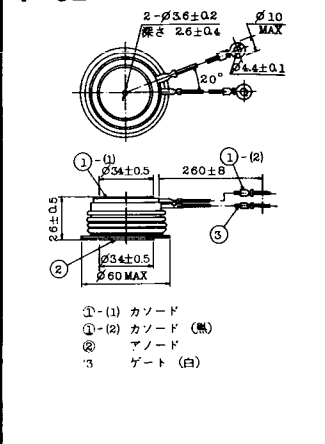
**T-30** (13-57A1A)



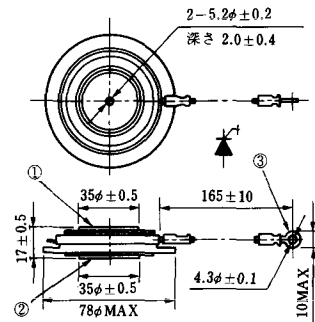
**T-31** (13-100E1A)



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

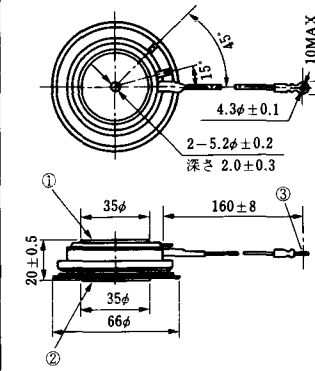


**T-33** (13-78B1A)



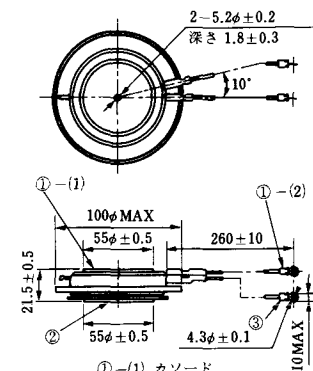
- ① カソード
- ② アノード
- ③ ゲート

**T-34** (13-66A1A)



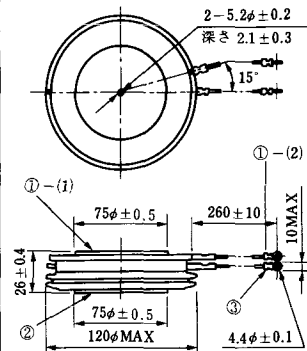
- ① カソード
- ② アノード
- ③ ゲート

**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)



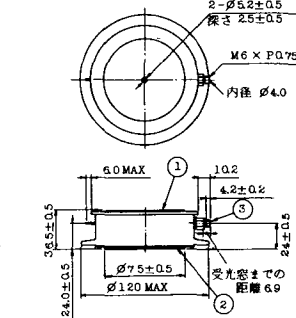
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**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)



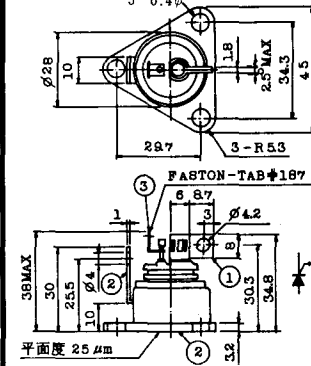
- ① カソード
- ② アノード
- ③ ゲート

**T-39** (13-80B1A)



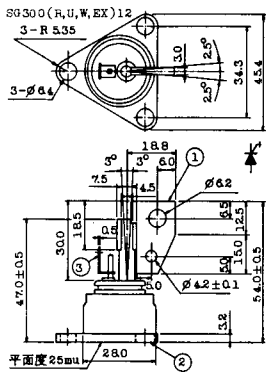
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-40** (13-28A1A)



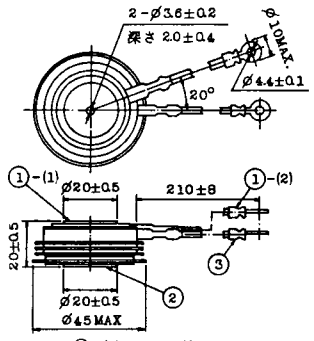
- 1. カソード
- 2. アノード
- 3. ゲート

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



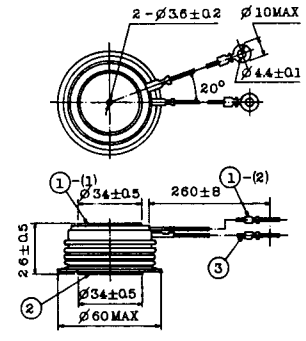
- 1 カソード
- 2 アノード
- 3 ゲート

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



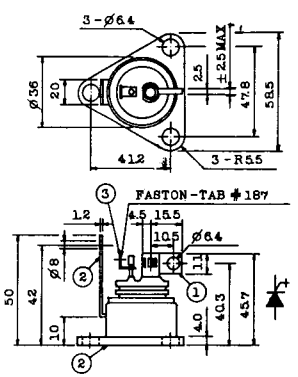
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



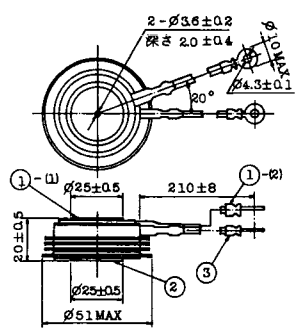
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



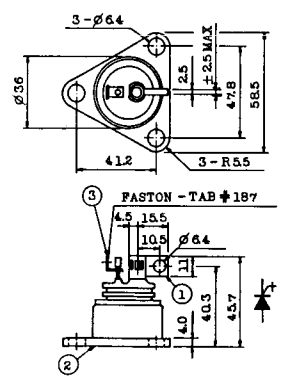
- 1 カソード
- 2 アノード
- 3 ゲート

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



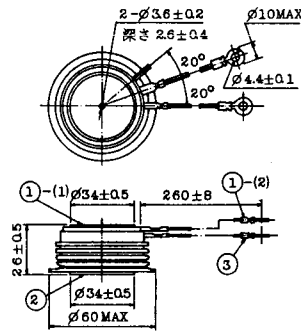
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



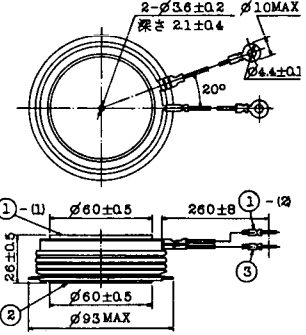
- 1 カソード
- 2 アノード
- 3 ゲート

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



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

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



- ①-(1) カソード
- ①-(2) カソード(黒色)
- ② アノード
- ③ ゲート(白色)



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)



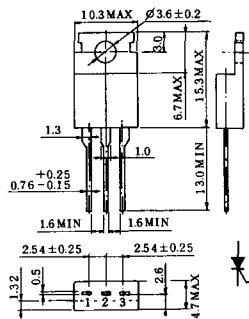
- 1 カソード
- 2 アノード
- 3 ゲート

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)



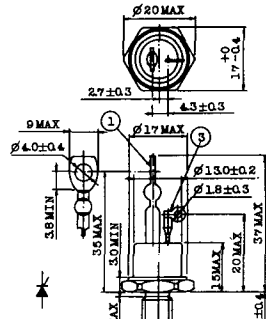
- 1 カソード
- 2 アノード
- 3 ゲート

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)



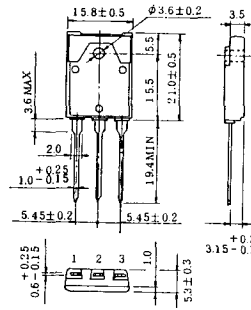
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



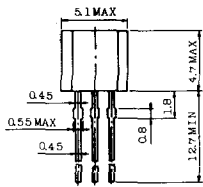
1. カソード
2. アノード
3. ゲート

TT-1



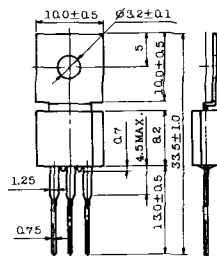
1. ゲート
2. T<sub>2</sub>
3. T<sub>1</sub>

TT-2



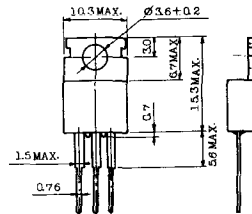
1. T<sub>1</sub>
2. ゲート
3. T<sub>2</sub>

TT-3



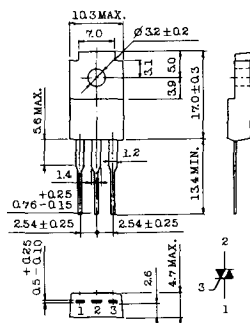
1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート

TT-4



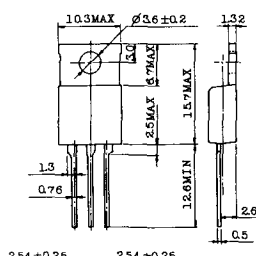
1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート

TT-5



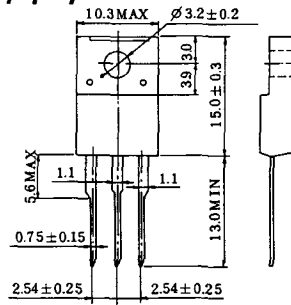
1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート

TT-6



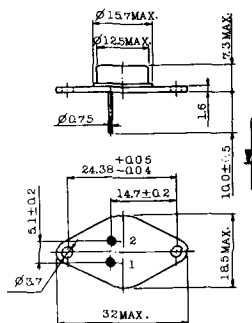
1. T<sub>1</sub>
2. T<sub>2</sub> (放熱板)
3. ゲート

TT-7



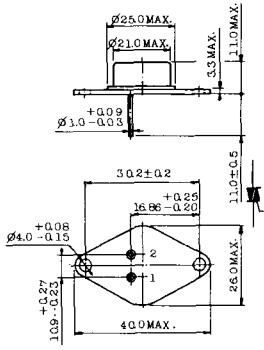
1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート

TT-8



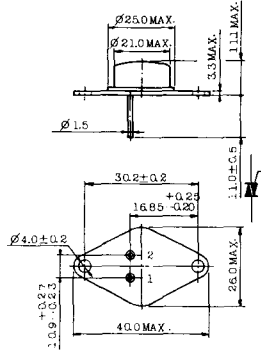
1. ゲート
2. T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



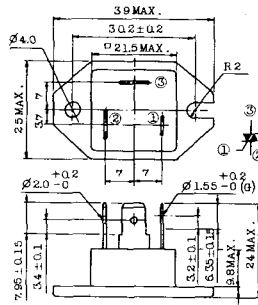
1. ゲート  
 2. T<sub>1</sub>  
 3. T<sub>2</sub> (ケース)

TT-10



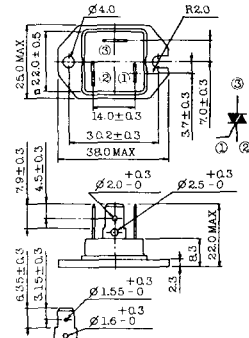
1. ゲート  
 2. T<sub>1</sub>  
 3. T<sub>2</sub> (ケース)

TT-11



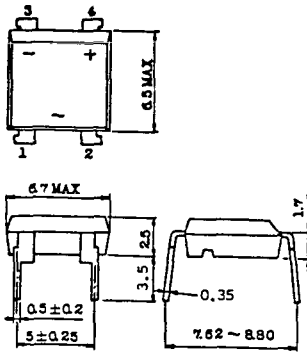
1. ゲート (フーストン端子 #187)  
 2. T<sub>1</sub> ( " #250)  
 3. T<sub>2</sub> ( " #250)

TT-12



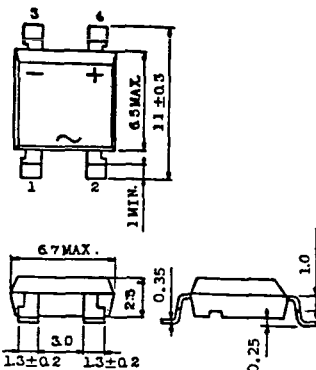
- ゲート端子詳細  
 ① ゲート (フーストン端子 #187)  
 ② T<sub>1</sub> ( " #250)  
 ③ T<sub>2</sub> ( " #250)

TT-13



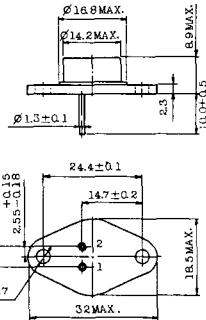
- 1, 2: T<sub>2</sub>  
 3: GATE  
 4: T<sub>1</sub>

TT-14



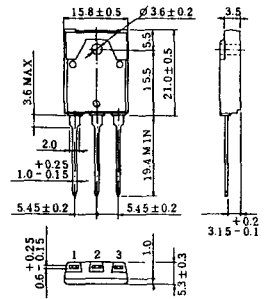
- 1, 2: T<sub>2</sub>  
 3: GATE  
 4: T<sub>1</sub>

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)

32 MAX

### S-62A1A



### S-80A1A



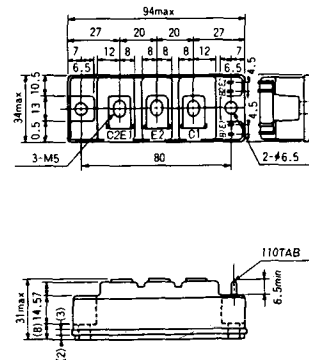
### S-88D1A



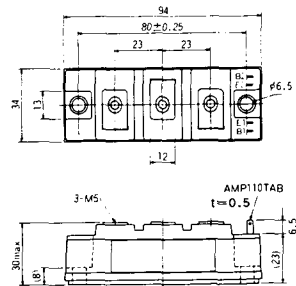
### S-92B1A



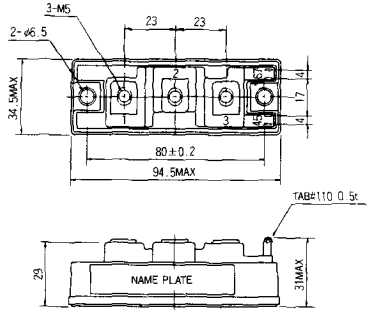
### S-94B1A



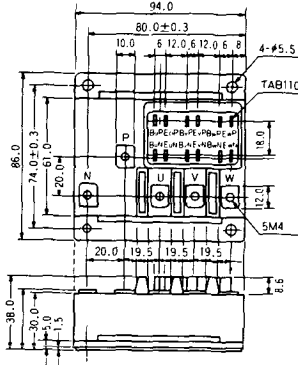
### S-94B1B



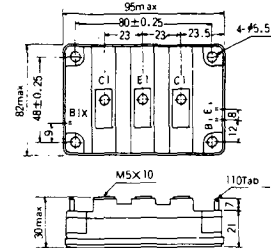
### S-94B2A



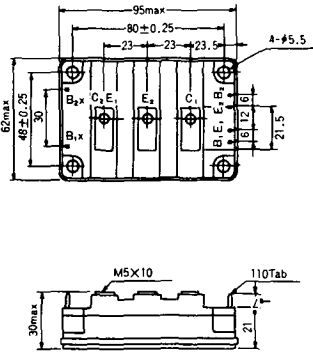
### S-94D1A



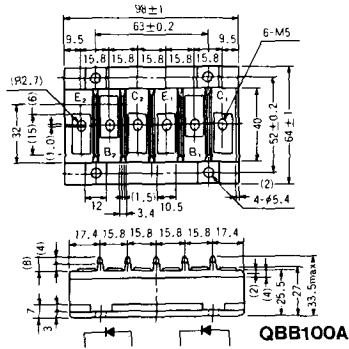
### S-95A1A



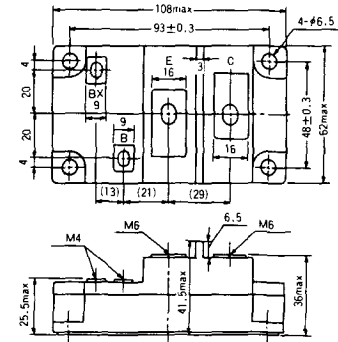
### S-95B1A



### S-98B1B



### S-108A2A





S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



### 2-22B1A



### 2-27A4A



### 2-33C1A



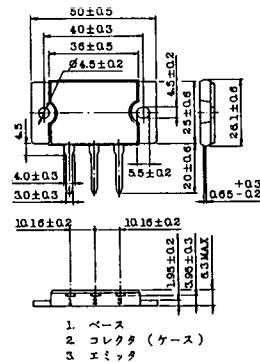
### 2-33D1A



### 2-33F1A



### 2-37A1A



2-48A3A



2-48A3B



2-48A4A



2-64A2A



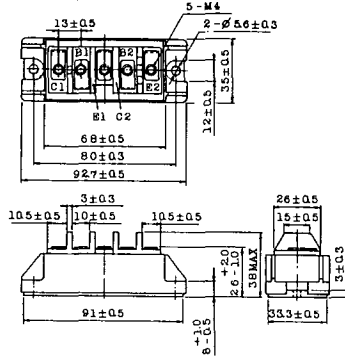
2-64A2B



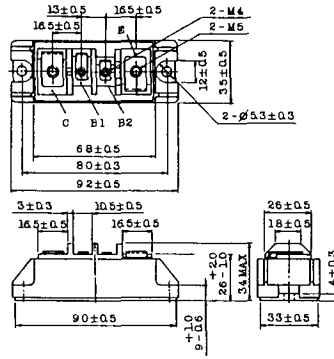
2-68A2A



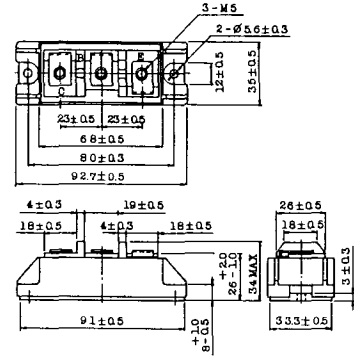
2-68B2A



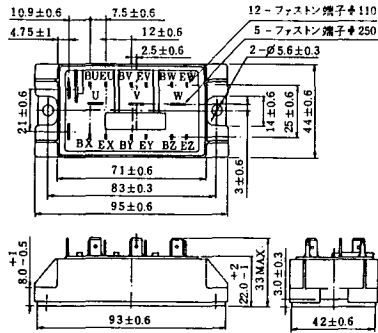
2-68C1A



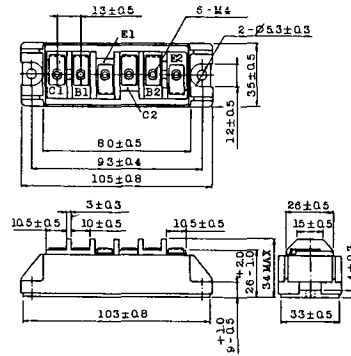
2-68D2A



2-72A3A



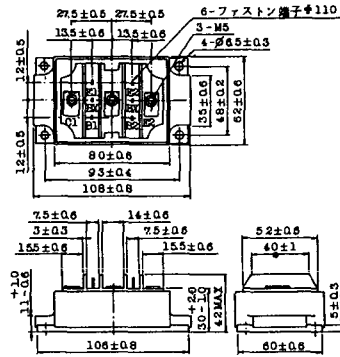
2-80A1A



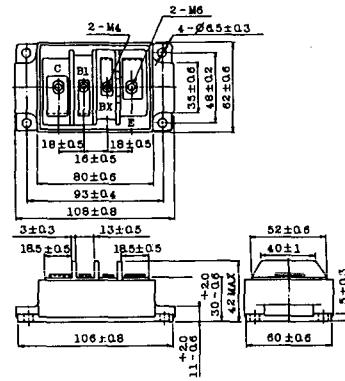
2-80B1A



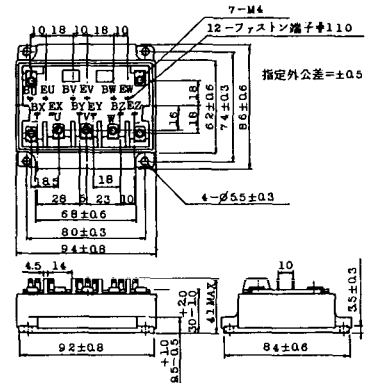
## 2-80C1A



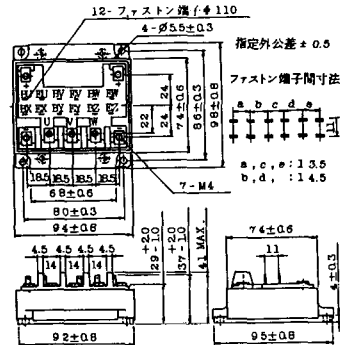
## 2-80D2A



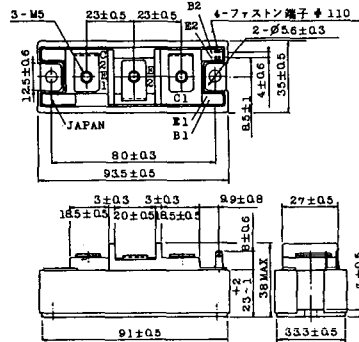
## 2-94A2A



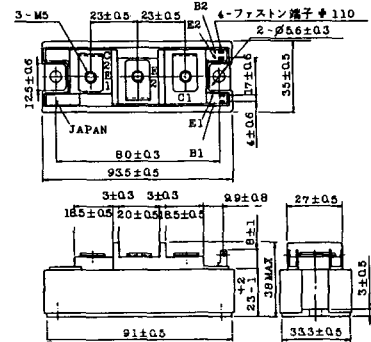
## 2-94B1A



## 2-94C2A



## 2-94C3A



### 2-94D1A



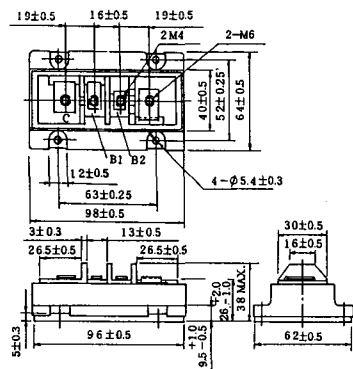
### 2-96A3A



### 2-96A4A



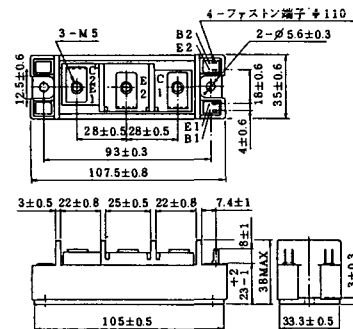
### 2-98B1A



### 2-98C2A



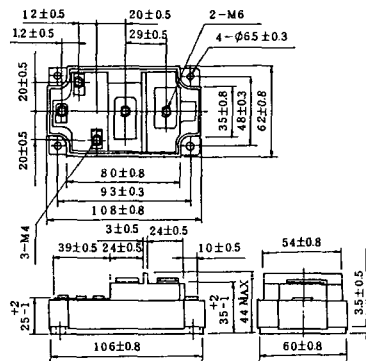
### 2-108A2A



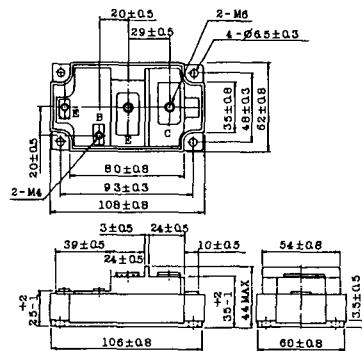
### 2-108B1A



### 2-109A3A



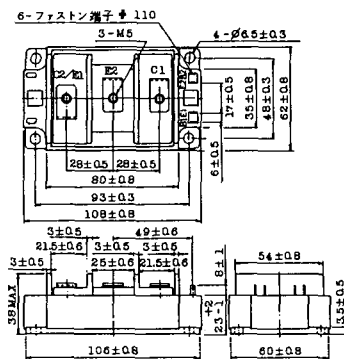
### 2-109A4A



### 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



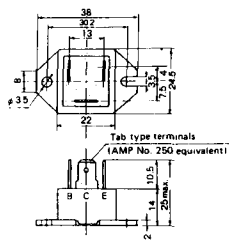
### BBT-IV

BBTIV  
1D500A-030

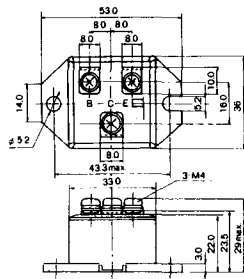




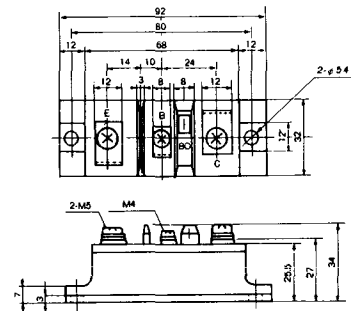
M-101



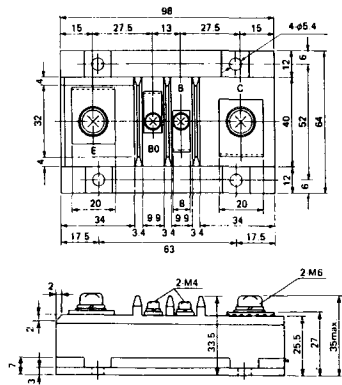
M-102



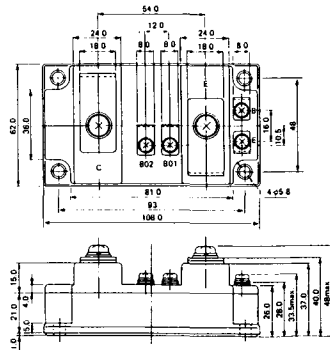
M-103



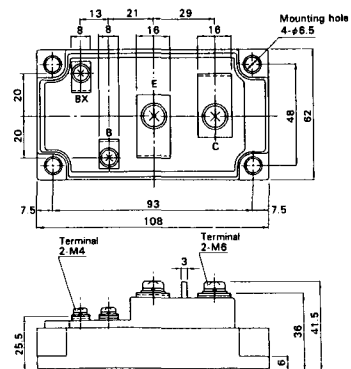
M-104



M-105



M-106



### M-107



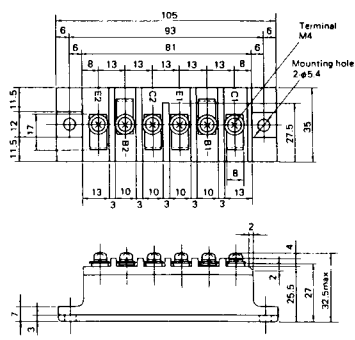
### M-116



M-201



M-202



M-203



M-204



M-205



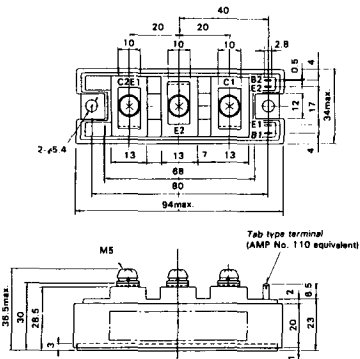
M-206



M-207



M-208



M-209



M-210



M-211



M-212

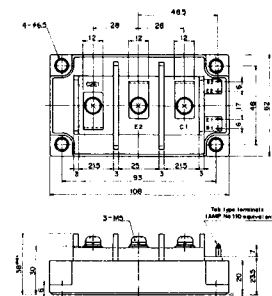


M-213



M-214

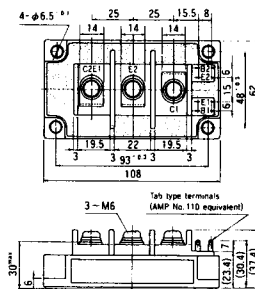
M-215



M-216



M-217



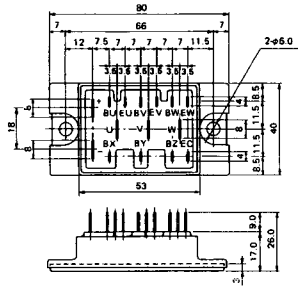
M-218



M-219



M-601



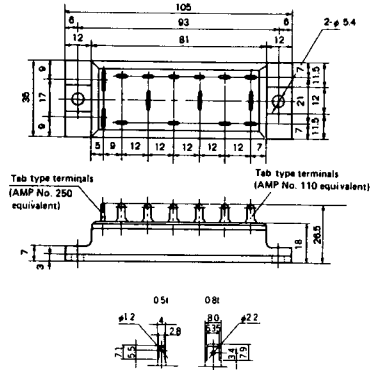
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



M-602



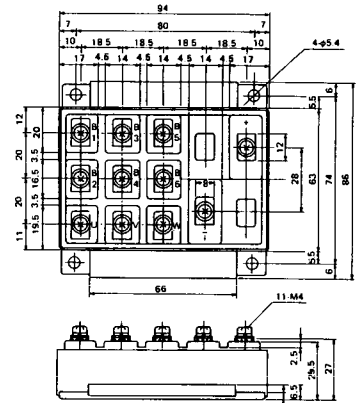
Tab type terminals  
(AMP No. 250 equivalent)



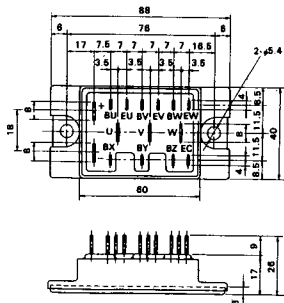
Tab type terminals  
(AMP No. 110 equivalent)



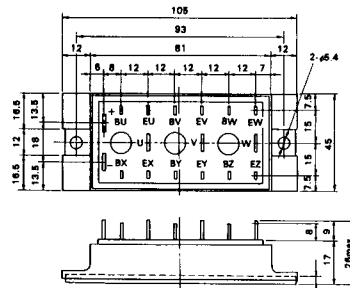
M-603



M-604



M-605



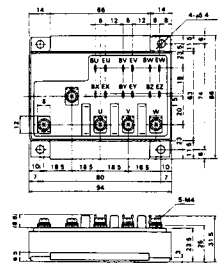
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



M-606



M-607



M-608



M-609



M-610

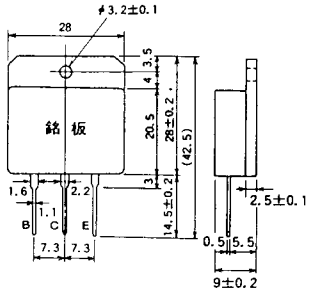


M-616

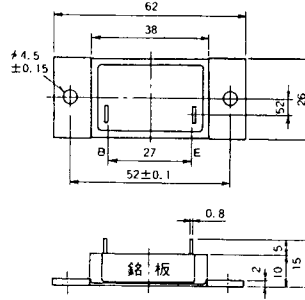




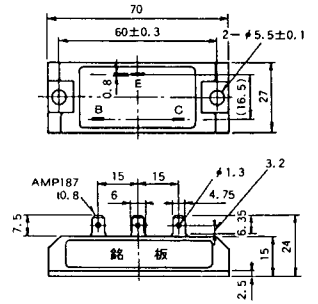
M-1A1A



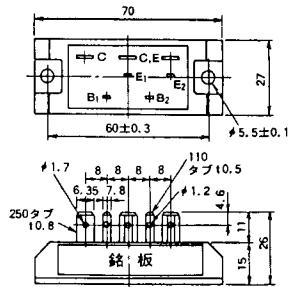
M-2A1A



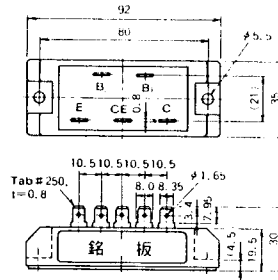
M-2B1A



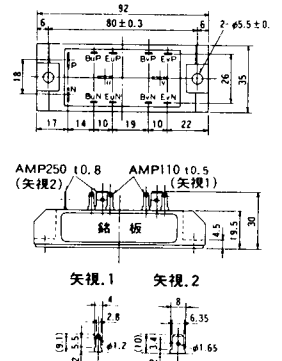
M-2B2A



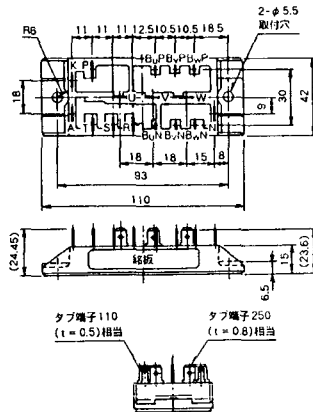
M-2C2A



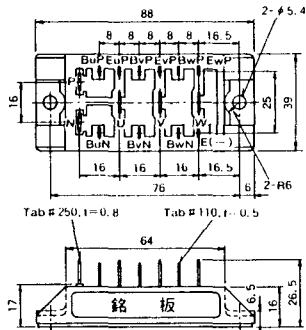
M-2D4A



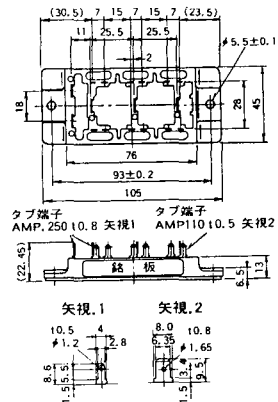
### M-2E6A



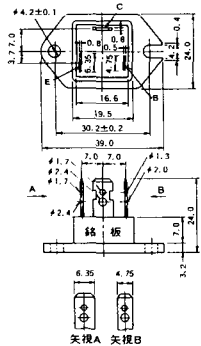
### M-2F6A



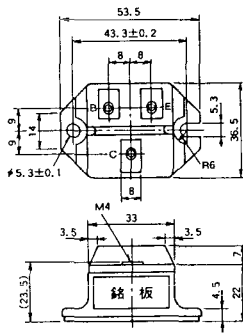
### M-2G6A



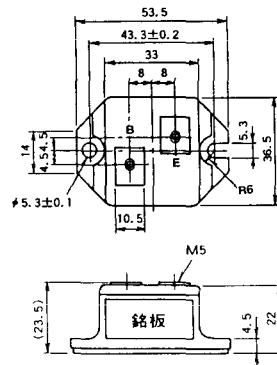
### M-3A1A



### M-3B1A



### M-3B1B



M-3C1A



M-3D6A



M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



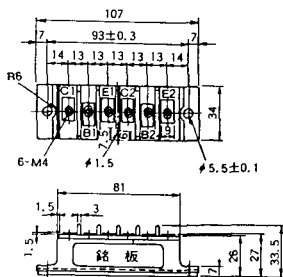
M-5A2A



M-5B2A



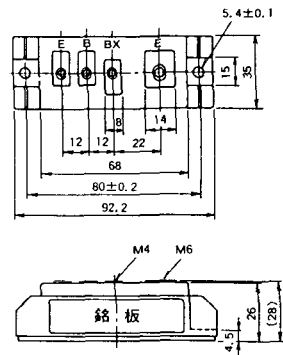
M-5C2A



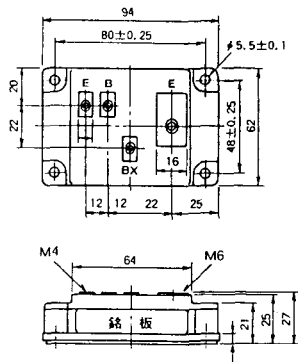
M-5D2A



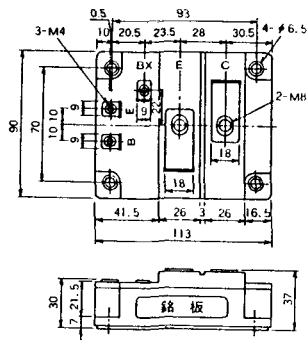
M-6A1A



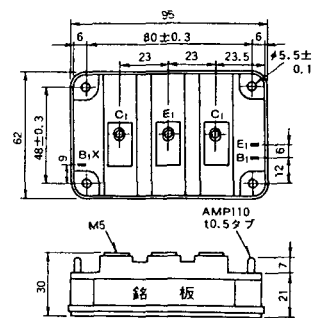
M-7A1A



M-7B1A



M-8A1A



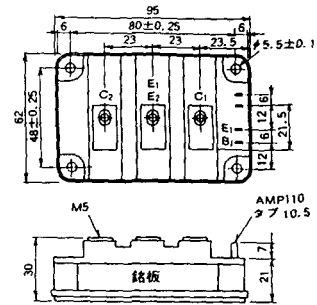
### M-8A1B



### M-8A2A



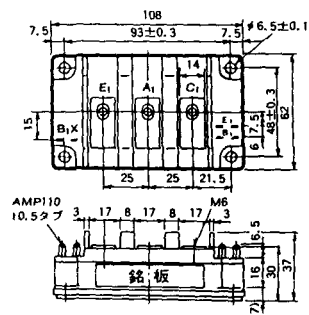
### M-8A2B



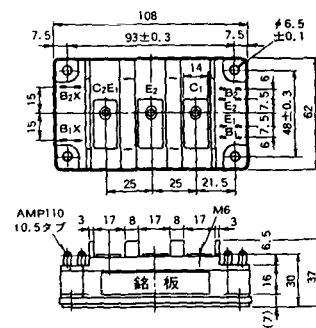
### M-8B2A



### M-9A1A



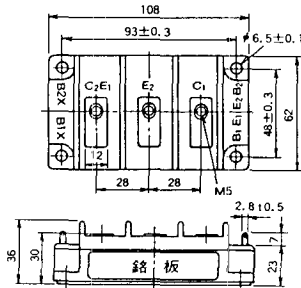
### M-9A2A



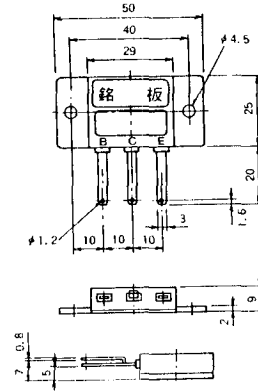
### M-9B1A



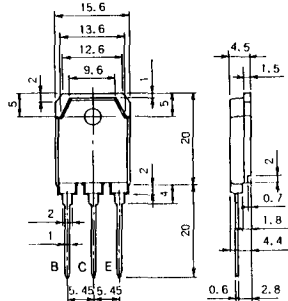
### M-9C2A



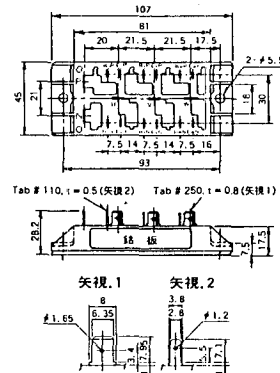
### M-1A1B



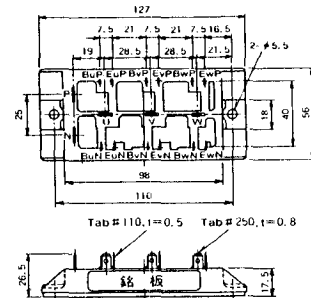
### M-1A1C



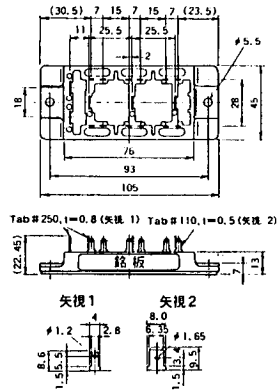
### M-2E6B



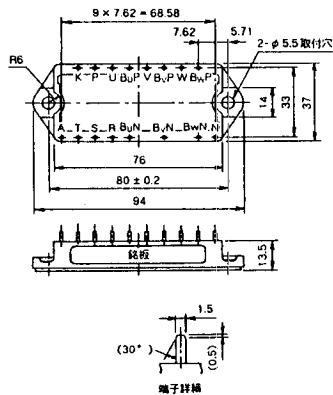
### M-2E6C



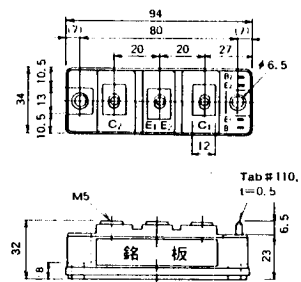
### M-2G6B



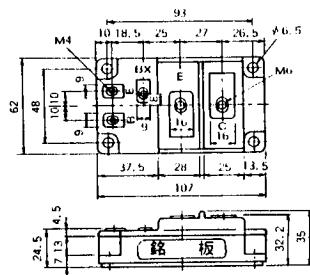
### M-3D6B



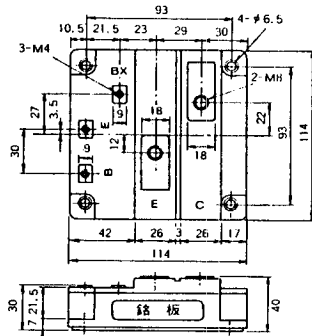
### M-4A2C



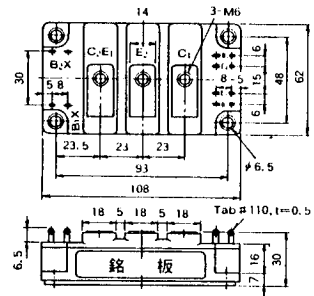
### M-7A1B



### M-7C1A



### M-8A2C





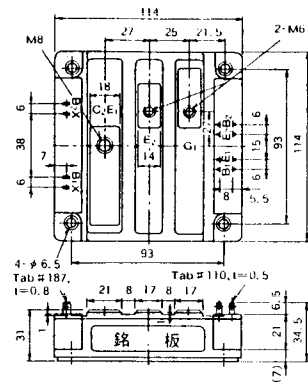
M-10A2A



M-10A2B



M-11A2A



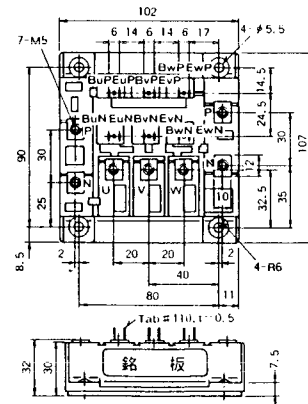
M-12A6A



M-12B6A



M-12B6B



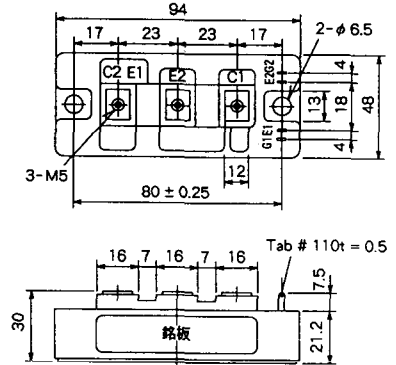
M-4A2D



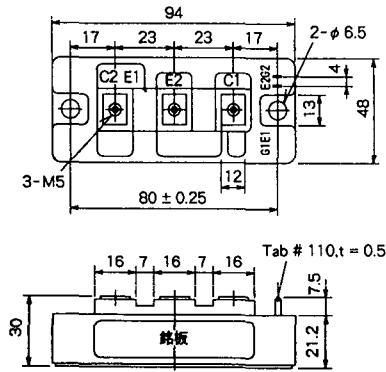
M-4A2E



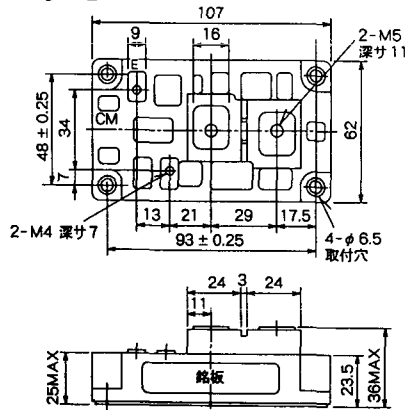
M-4C2A



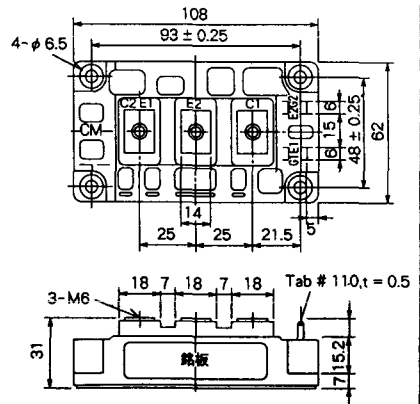
M-4C2B



M-9B1C



M-9D2A



M-9D2B



M-10A2C



H-101



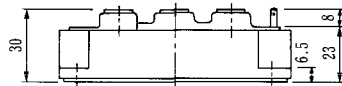
Weight :480g

### H-201



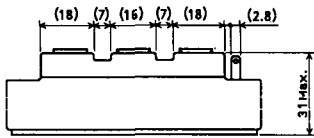
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

