

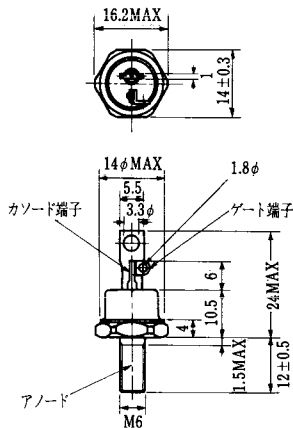
SG2700 R, U, W, EX22					■外形図番号 T-36 (13-120E1A)						
■最大定格					■電気的特性						
記号	SG2700R22	SG2700U22	SG2700W22	SG2700EX22	単位	記号	測定条件	Min	Typ	Max	単位
$V_{RRM}$	15				V	$I_{RRM}$	$T_J=125^{\circ}\text{C}$ , $V_D=V_{RRM}$			100	mA
$V_{DRM}$	1300	1600	1800	2500		$I_{DRM}$	$T_J=125^{\circ}\text{C}$ , $V_D=V_{DRM}$ , $R_{GK}=10\Omega$			60	mA
$I_{TQM}$	2700 ( $V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$ , $C_s=6\mu\text{F}$ , $R_s=5\Omega$ )				A	$V_{TM}$	$T_c=25^{\circ}\text{C}$ , $I_{FM}=2700\text{A}$			3	V
$I_{TRMS}$	800 ( $T_J=70^{\circ}\text{C}$ )					$V_{GT}$	$T_c=25^{\circ}\text{C}$ , $V_D=24\text{V}$			1.2	V
$I_{TSM}$	20000/22000 (50Hz/60Hz, 正弦半波1サイクル)				A <sup>2</sup> S	$I_{GT}$	$R_L=0.1\Omega$			3.5	A
$I^2 \cdot t$						$V_{GD}$	$T_c=125^{\circ}\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$	0.3			V
$di/dt$	300 ( $I_{CP}=30\text{A}$ , $t_r=1\mu\text{s}$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{FM}=2700\text{A}$ , $f=50\text{Hz}$ )				A/ $\mu\text{s}$	$I_{GD}$		10			mA
$I_{GFM}$	100 (パルス幅: max. 30 $\mu\text{s}$ , duty: max. 20%)				A	$t_d$	$T_c=25^{\circ}\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{CP}=30\text{A}$			4	$\mu\text{s}$
$P_{GF(AV)}$	20				W	$t_{bt}$	$I_{FM}=2700\text{A}$ , $di/dt=300\text{A}/\mu\text{s}$			15	
$I_{GRRMS}$	90				A	$dv/dt$	$T_J=125^{\circ}\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$ , $V_{GR}=-4\text{V}$	500			V/ $\mu\text{s}$
$P_{CRM}$	15000 (パルス幅: max. 50 $\mu\text{s}$ , duty: max. 2%)				W	$I_H$	$T_c=25^{\circ}\text{C}$ , $R_L=0.1\Omega$		40		A
$V_{GRM}$	15				V	$t_s$	$T_c=120^{\circ}\text{C}$ , $I_{FM}=2700\text{A}$		20		
$T_J$	125				$^{\circ}\text{C}$	$t_{bs}$	$V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$			25	$\mu\text{s}$
$T_{stg}$	-40~125				$^{\circ}\text{C}$	$t_{bst}$	$C_s=6\mu\text{F}$ , $R_s=5\Omega$			80	
						$I_{GR}$	$dig/dt=-50\text{A}/\mu\text{s}$		600	660	A
						$R_{th}$	接合-フィン間, DC			0.02	$^{\circ}\text{C}/\text{W}$

SG15 G, J, 41					■外形図番号 T-53 (13-10E1B)						
○可制御オン電流 15A    ○臨界オフ電圧上昇率 3000V/ $\mu\text{s}$ ○TO-220ABパッケージ					■電気的特性 ( $T_c=25^{\circ}\text{C}$ , $R_{GK}=500\Omega$ )						
記号	SG15G41	SG15J41		単位	記号	測定条件	Min	Typ	Max	単位	
$V_{RRM}$	500	720		V	$I_{DRM}$	$T_J=125^{\circ}\text{C}$ , $V_D=V_{DRM}$			3	mA	
$V_{DRM}$	400	600			$I_{GRM}$						mA
$I_{TQM}$	15 ( $V_D=\frac{1}{2}V_{DRM}$ , $V_{GR}=7\text{V}$ , $T_J=125^{\circ}\text{C}$ )				A	$V_{TM}$	$I_{FM}=5\text{A}$ , $I_{GF}=0.1\text{A}$			3.3	V
$I_{TRMS}$	5 (平均オン電流)					$V_{GT}$	$V_D=30\text{V}$ , $R_L=6\Omega$			1.5	V
$I_{TSM}$	55/60 (50Hz/60Hz, 1サイクル)				A <sup>2</sup> S	$dv/dt$				100	mA
$I^2 \cdot t$	15 ( $t=2\sim 10\text{ms}$ )					$V_{GT}$	$T_c=125^{\circ}\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$	0.3			V
$di/dt$	50 ( $I_G=0.5\text{A}$ , $t_r=1\mu\text{s}$ , $V_D=\frac{1}{2}V_{DRM}$ , $f=50\text{Hz}$ )				A/ $\mu\text{s}$	$I_{GT}$		0.2			mA
$I_{GFM}$	3				A	$t_d$	$V_D=\frac{1}{2}V_{DRM}$			0.3	$\mu\text{s}$
$P_{GF(AV)}$	0.7				W	$t_{bt}$	$I_G=0.5\text{A}$ , $t_r=0.2\mu\text{s}$			1.5	
$I_{GRM}$					A	$dv/dt$	$T_J=125^{\circ}\text{C}$ , $V_D=V_{DRM}$ , $V_{GR}=7\text{V}$	3000			V/ $\mu\text{s}$
$P_{CRM}$	50 ( $t_k=10\mu\text{s}$ , $T_J=125^{\circ}\text{C}$ )				W	$I_H$	$R_L=10\Omega$		2		A
$V_{GRM}$	10				V	$t_s$	$I_{FM}=5\text{A}$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{GR}=3\text{A}$			0.5	$\mu\text{s}$
$T_J$	125				$^{\circ}\text{C}$	$t_f$	$dig/dt=-6\text{A}/\mu\text{s}$ , $dv/dt=400\text{V}/\mu\text{s}$			0.3	
$T_{stg}$	-40~125				$^{\circ}\text{C}$	$I_{GR}$	$T_J=125^{\circ}\text{C}$ , $dv/dt=40\text{V}/\mu\text{s}$		1		A
						$R_{th}$	接合-ケース間, DC			2.5	$^{\circ}\text{C}/\text{W}$

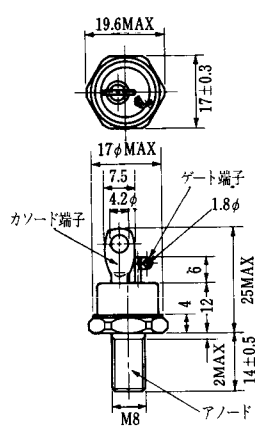
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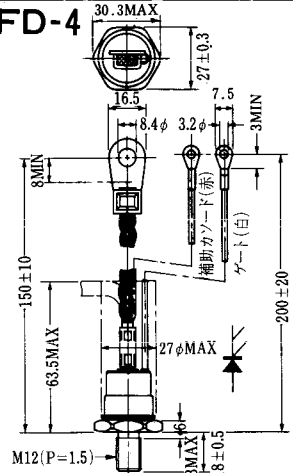
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FD-3



FD-4



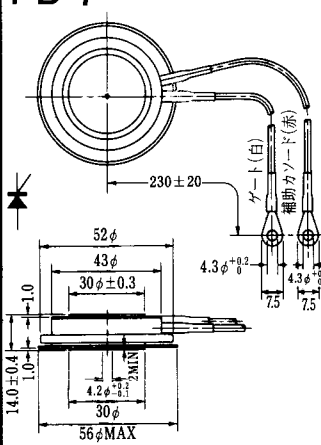
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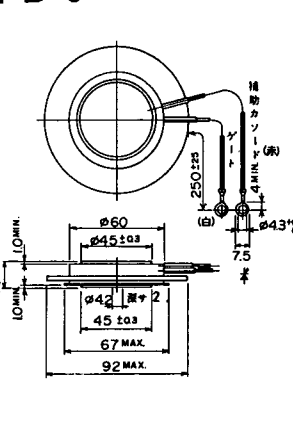
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FD-7



FD-8



FD-9



FD-10



FD-11

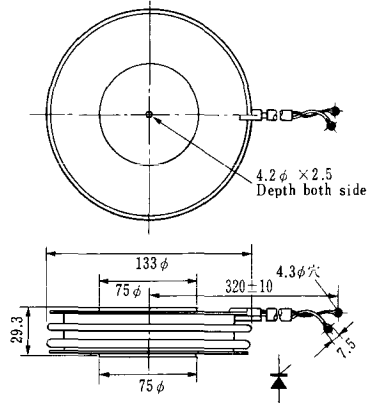
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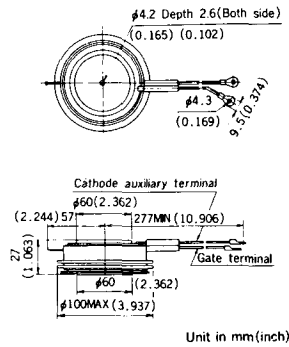


《寸法図単位：mm》

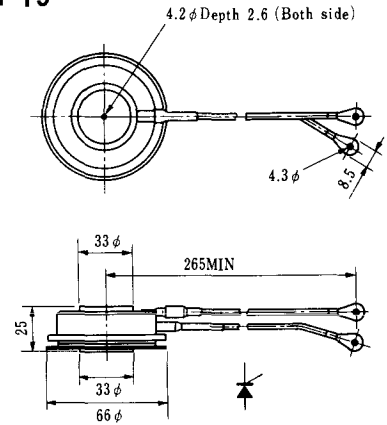
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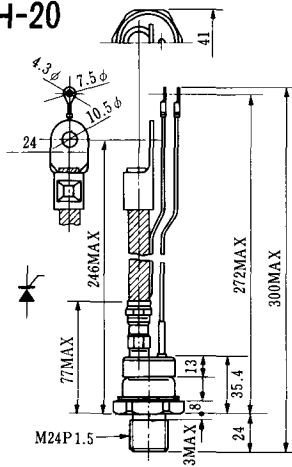
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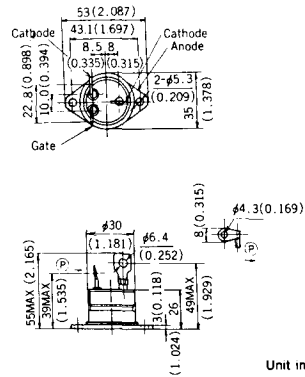
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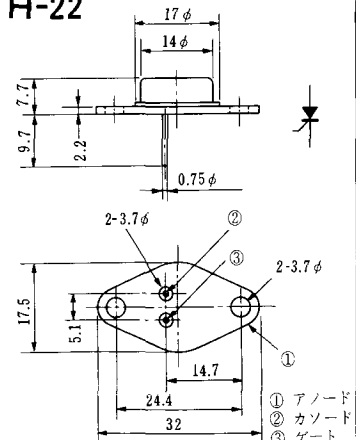
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### H-21



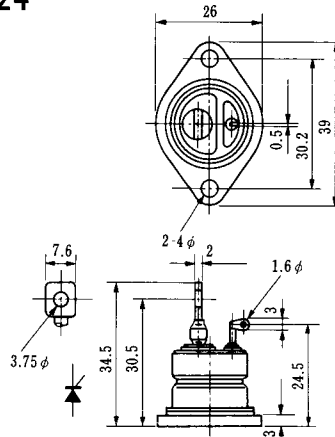
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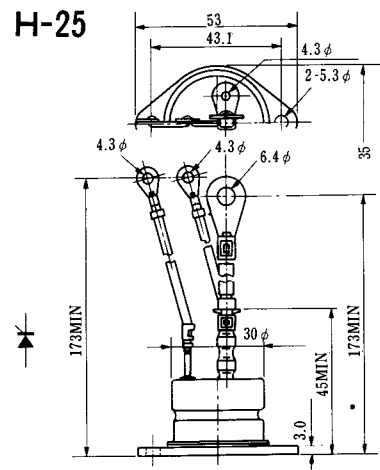
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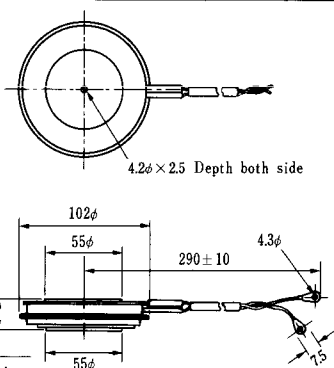
### H-24



### H-25

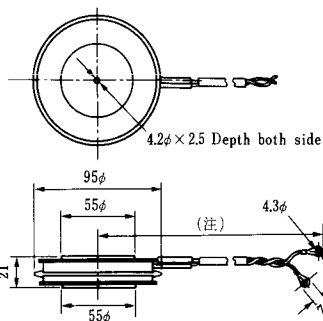


### H-26



Type	Direction of polarity
CA12	

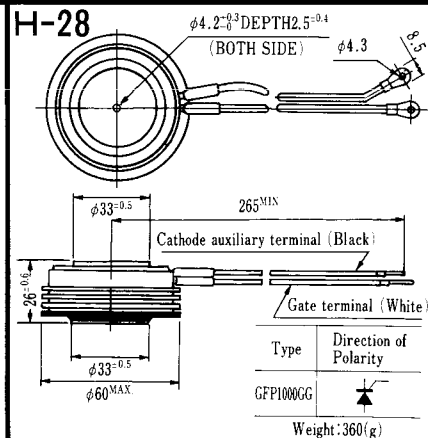
### H-27



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.



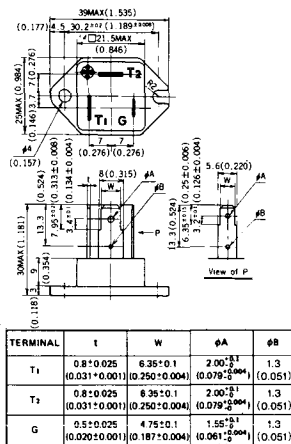
Note : The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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

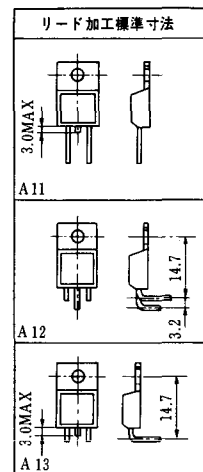
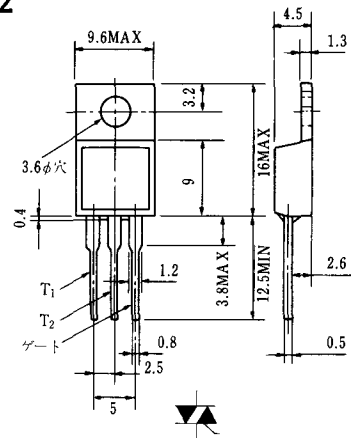


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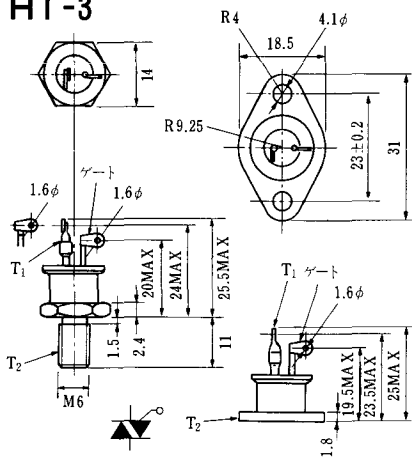


Unit in mm (inch)

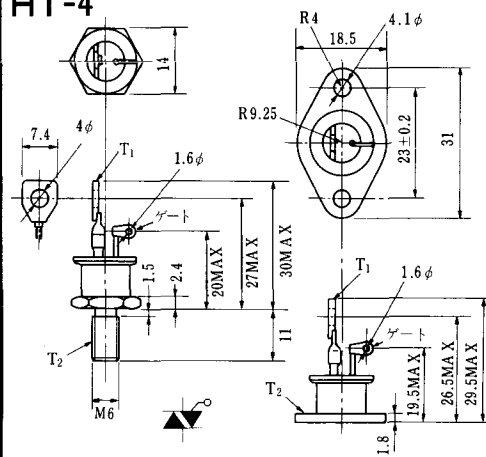
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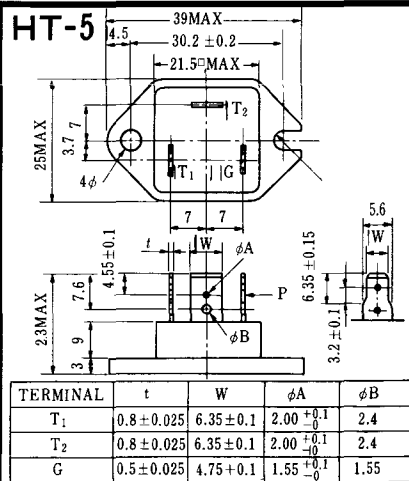
# HT-3



# HT-4



# HT-5



《寸法図単位：mm》

### M-1



### M-2



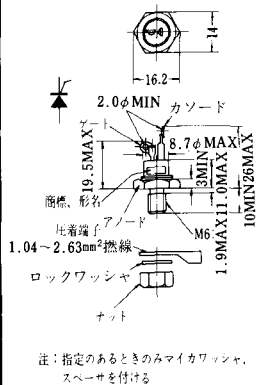
### M-3



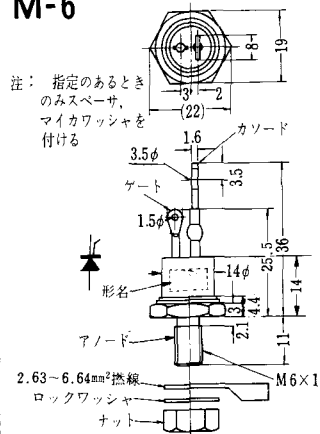
### M-4



### M-5



### M-6



### M-7



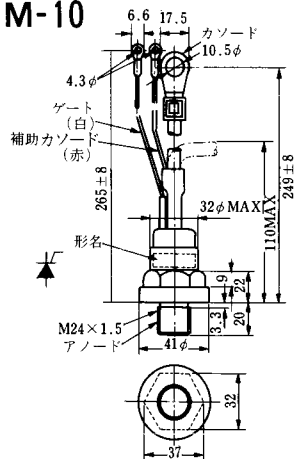
### M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15

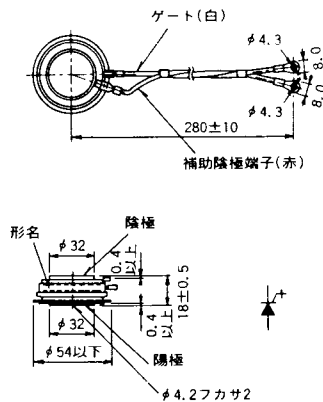


M-16

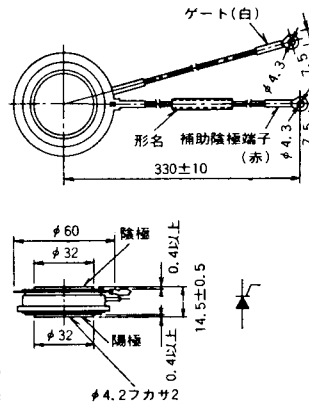




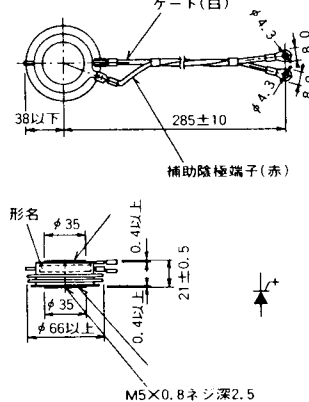
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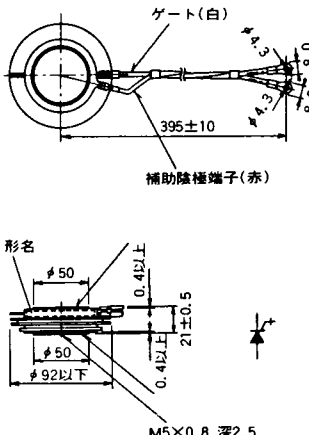
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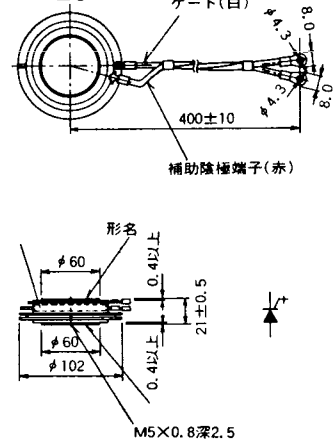
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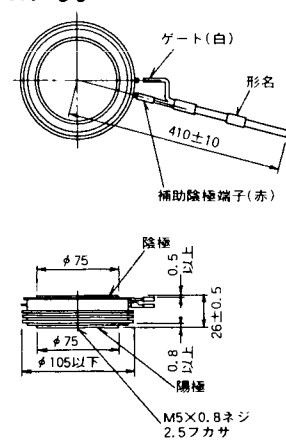
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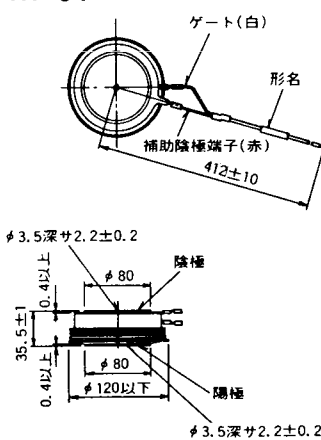
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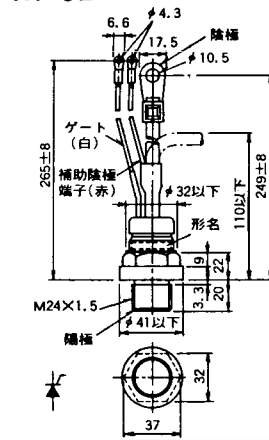
M-30



M-31



M-32



### M-33



### M-34



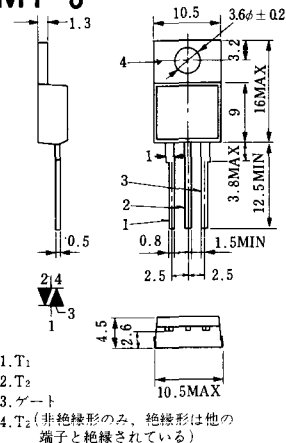
### MT-1



### MT-2



### MT-3



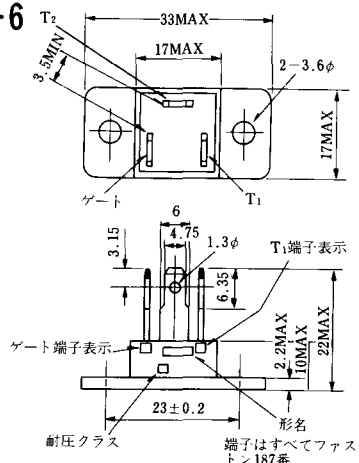
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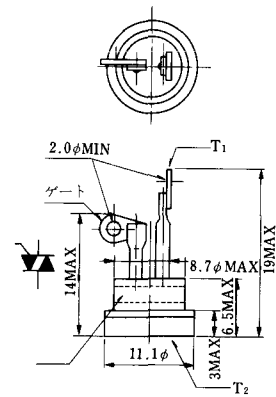
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### MT-6



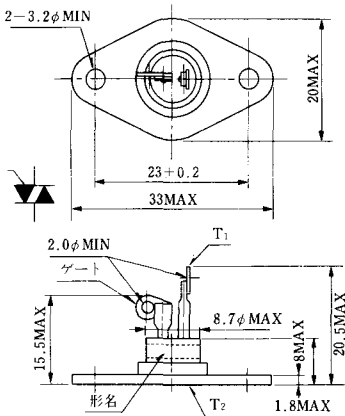
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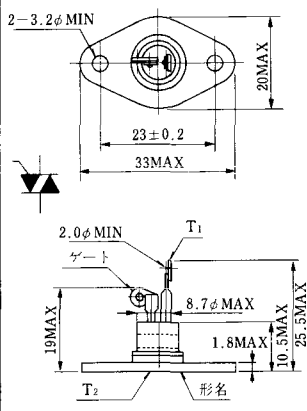
MT-8



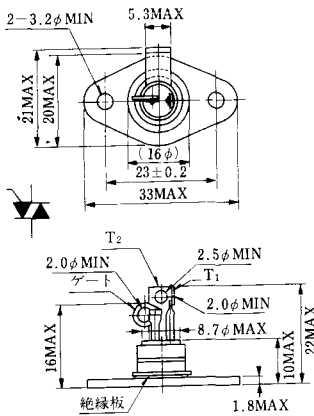
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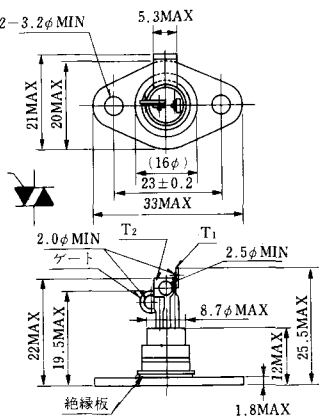
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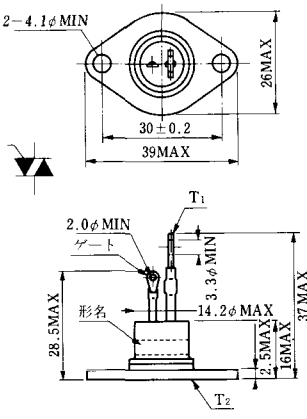
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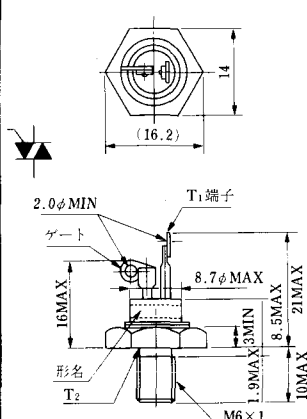
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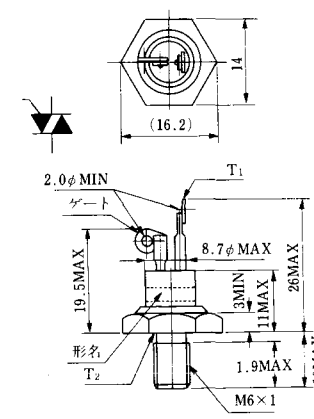
MT-13



MT-14



MT-15

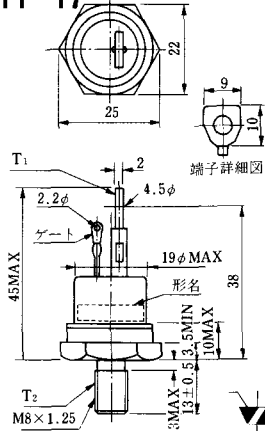




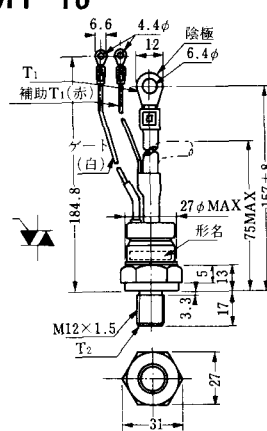
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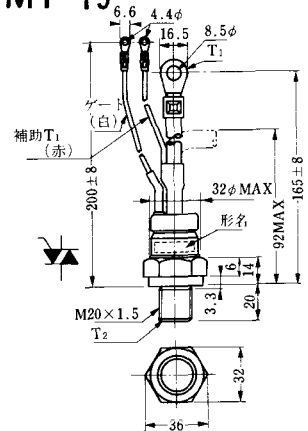
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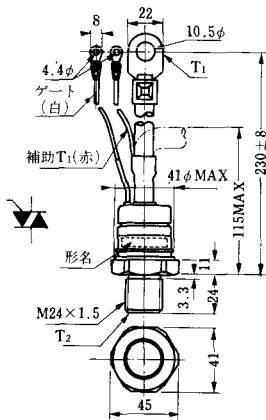
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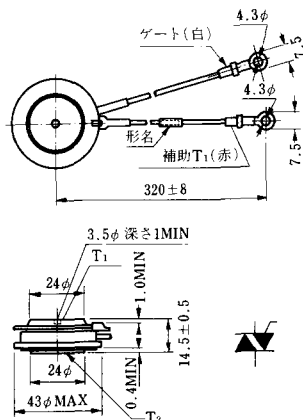
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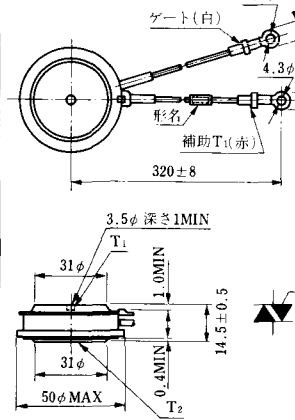
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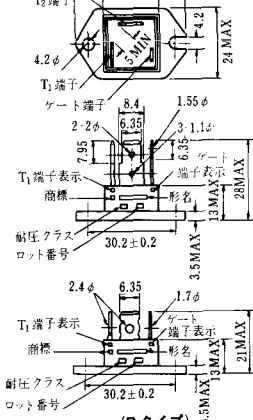
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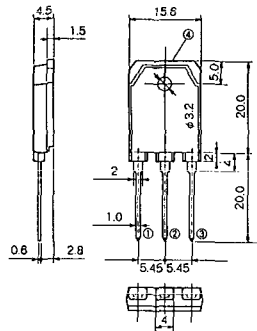
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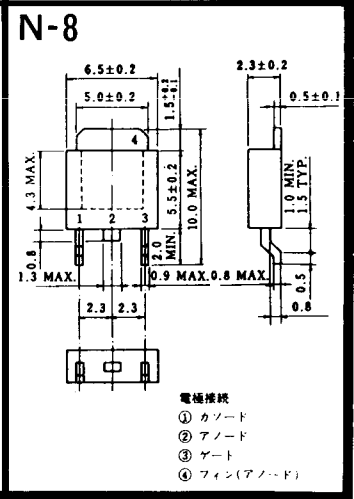
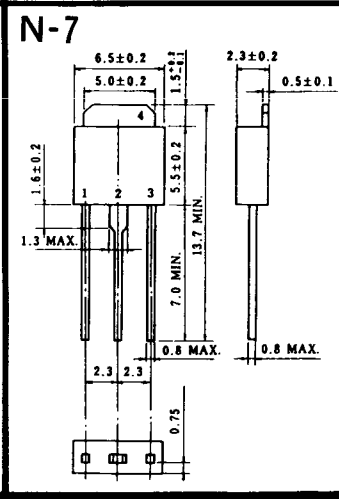
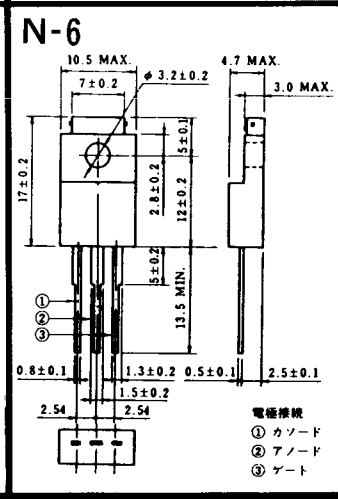
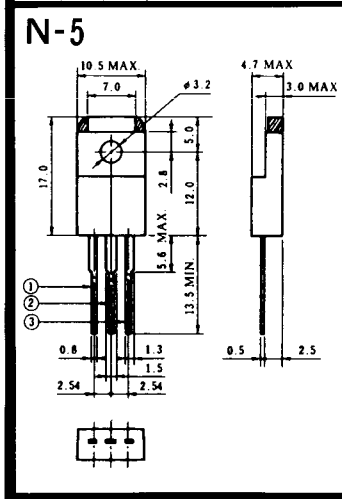
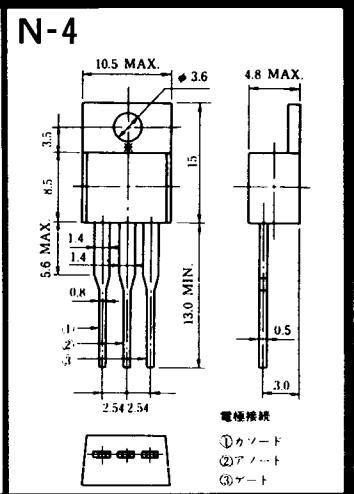
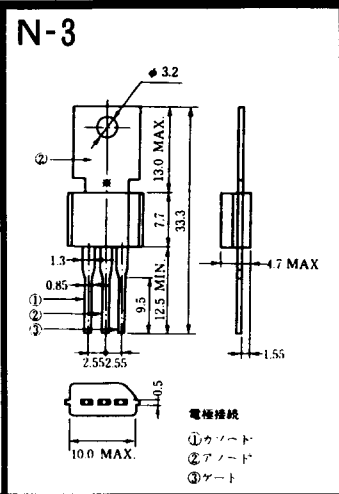
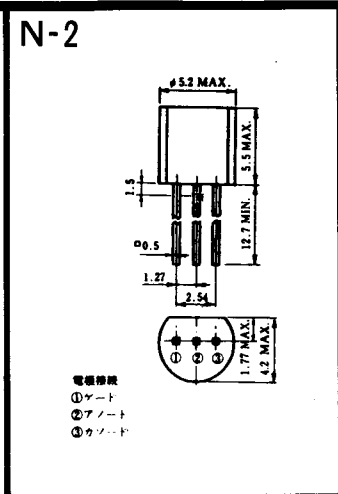
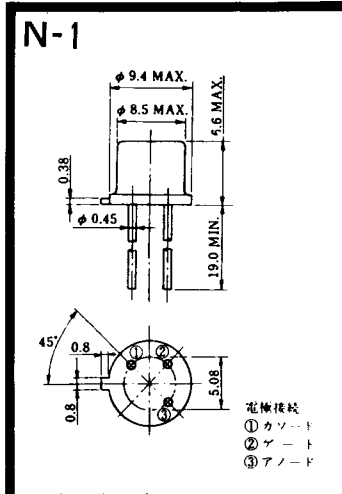
MT-23



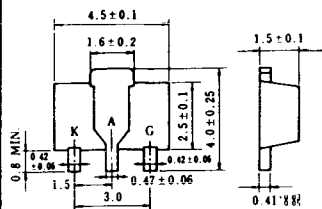
# MT-24



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



# N-9



**電極接続**

K : カソード

A : アノード

G : ギャート

### NA-1

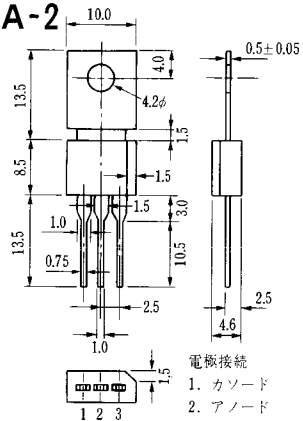


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

### NA-2

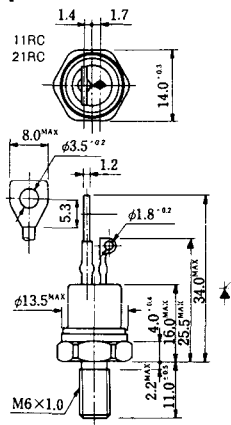


電極接続

1. カソード
2. アノード
3. ゲート

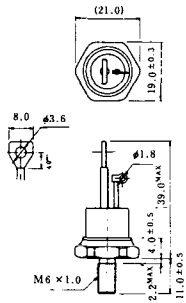
JEDEC: TO-202AA

### NI-1



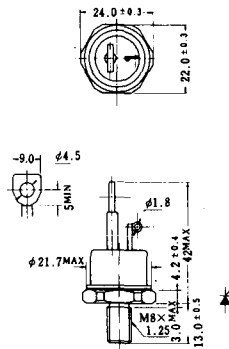
### NI-2

29RD



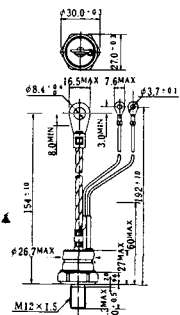
### NI-3

39RC  
59RC  
39RF  
59RF



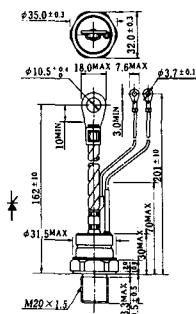
### NI-4

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



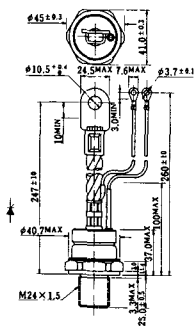
### NI-5

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



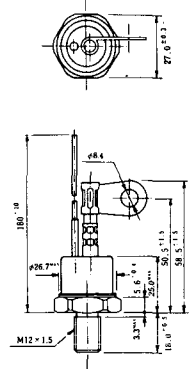
### NI-7

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



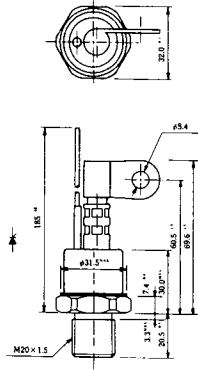
### NI-8

89RW  
129RW



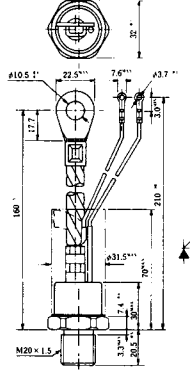
### NI-9

259RW  
309RW



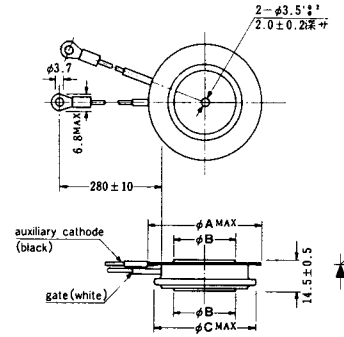
### NI-10

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



### NI-11

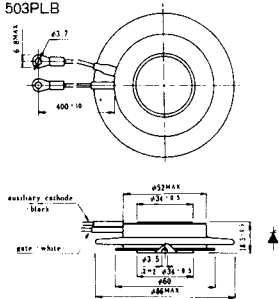
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



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

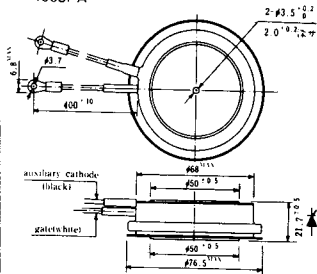
### NI-12

403PAB  
503PAB  
503PLB



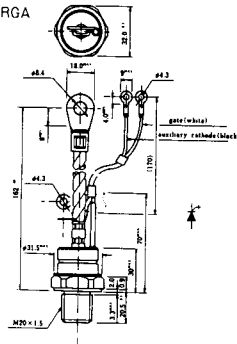
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



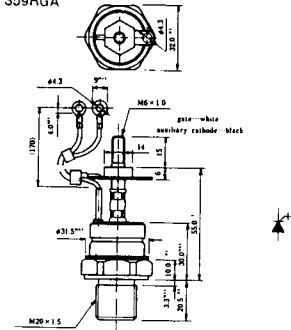
### NI-14

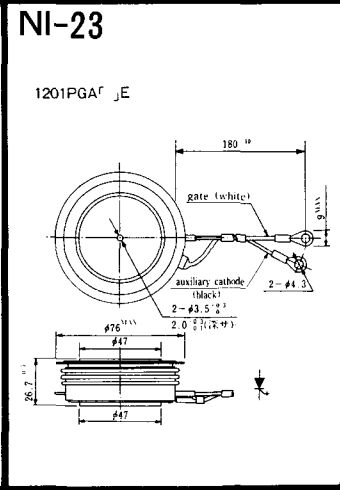
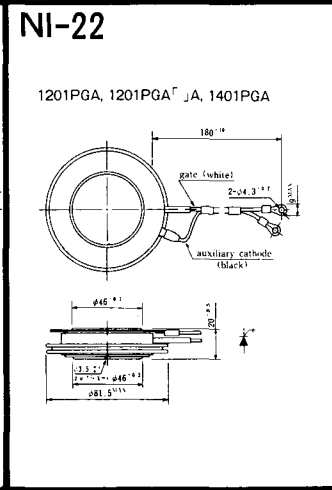
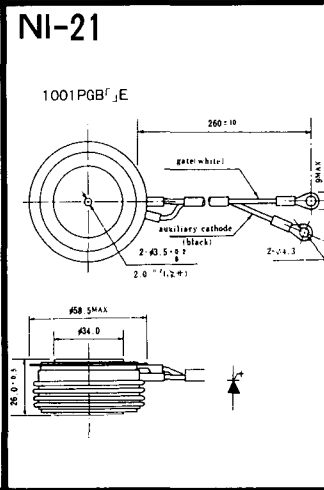
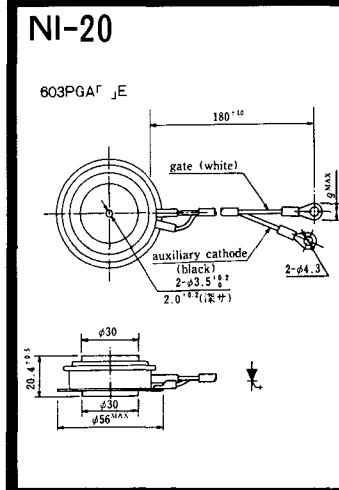
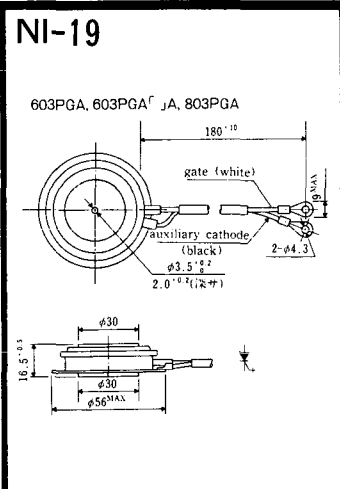
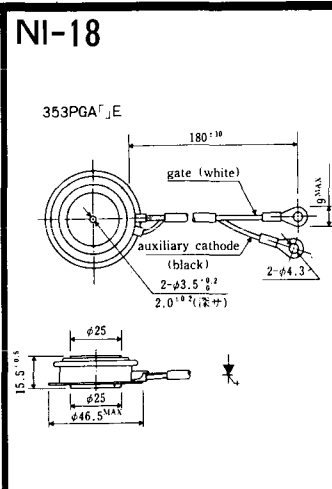
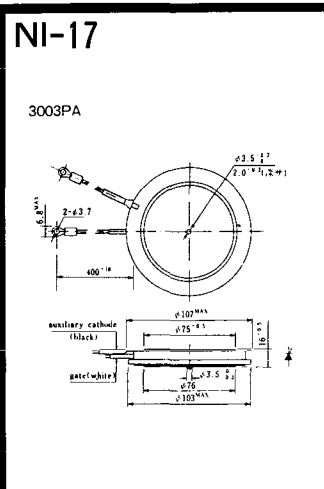
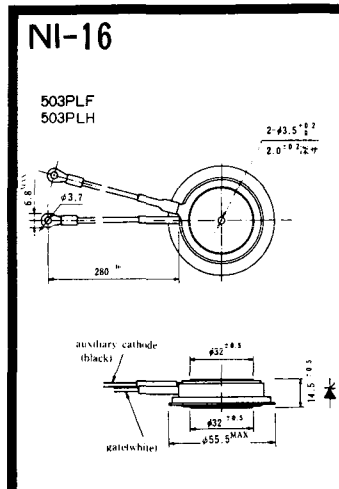
358RGA



### NI-15

359RGA







NI-24

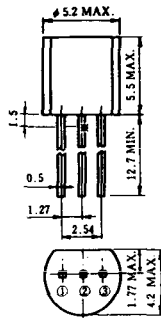
2001PGB<sup>r</sup> JE



NI-25

NI-26

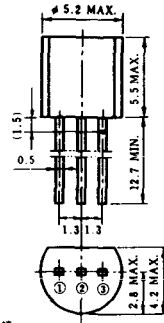
### NT-1



電極接続

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

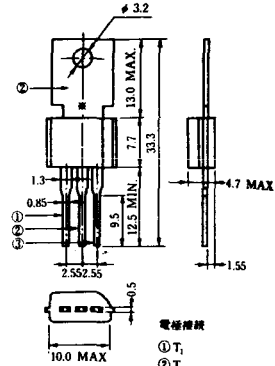
### NT-2



電極接続

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

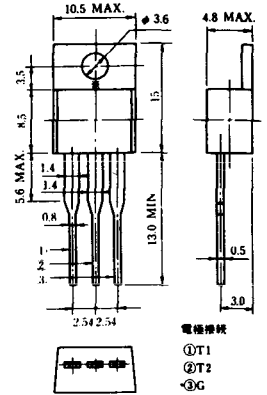
### NT-3



電極接続

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

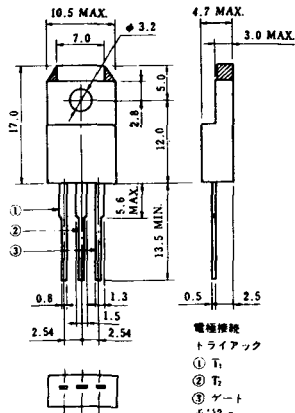
### NT-4



電極接続

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

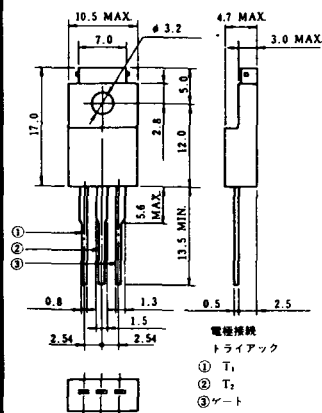
### NT-5



電極接続  
トライアック

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

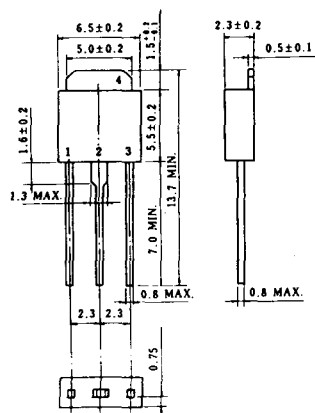
### NT-6



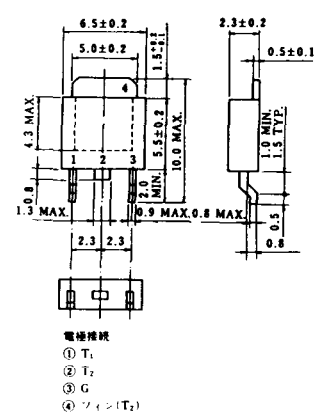
電極接続  
トライアック

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

### NT-7



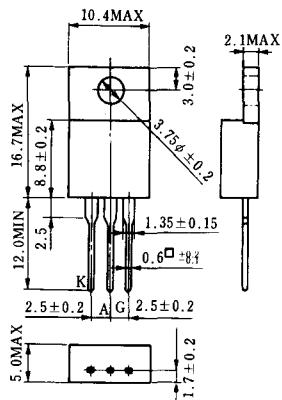
### NT-8



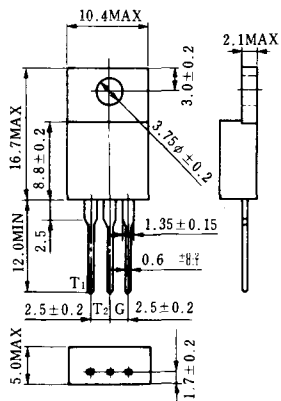
電極接続

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

### S-1



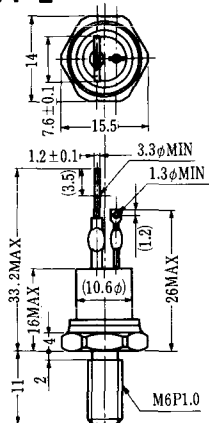
### ST-1



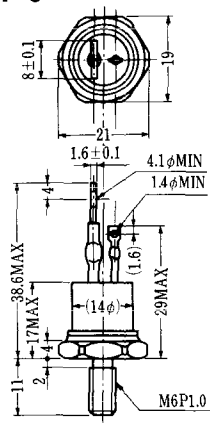
SA-1



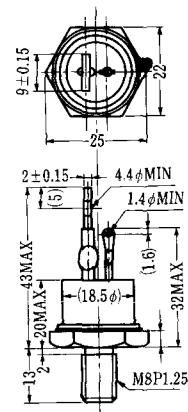
SA-2



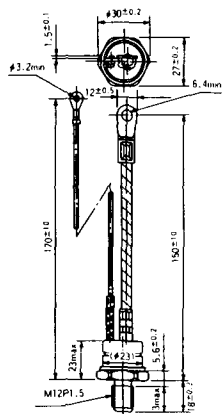
SA-3



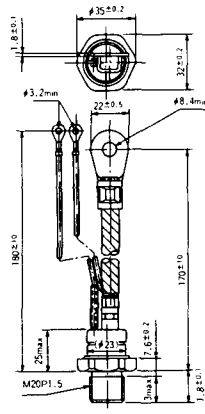
SA-4



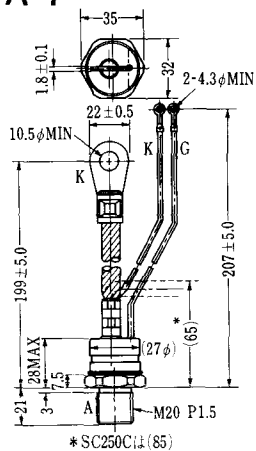
SA-5



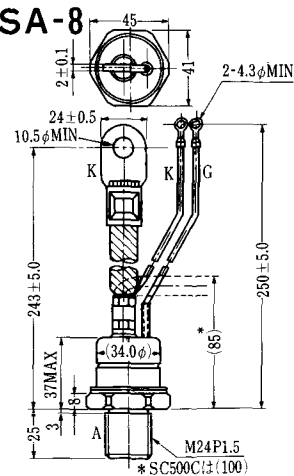
SA-6



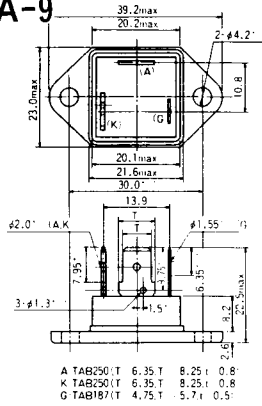
SA-7



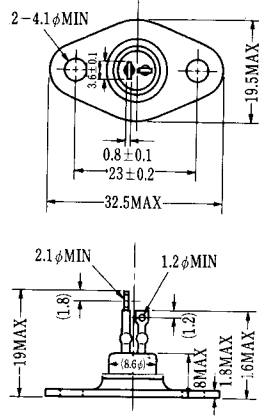
SA-8



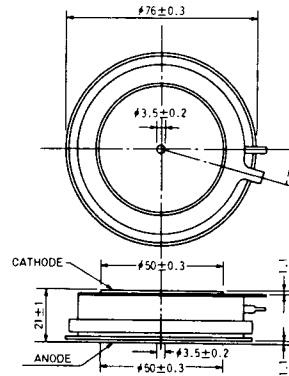
### SA-9



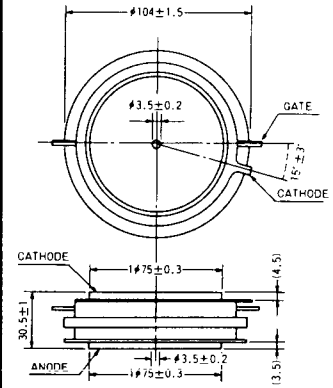
### SA-10



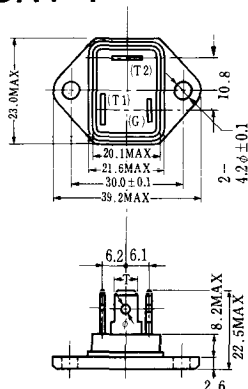
### SA-11



### 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)

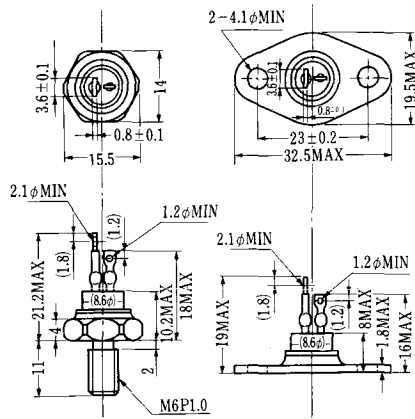
SAT-2



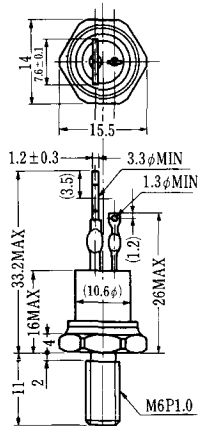
SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



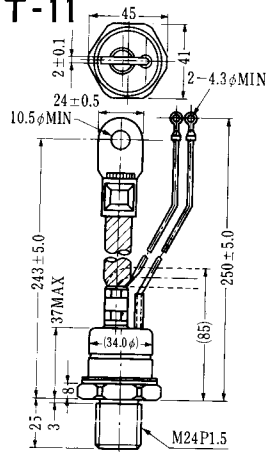
SAT-9



SAT-10



SAT-11

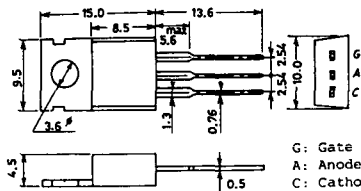


### SY-1 (1096A)



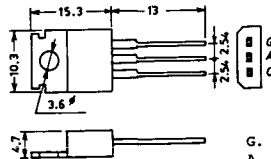
C: Cathode  
A: Anode  
G: Gate

### 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

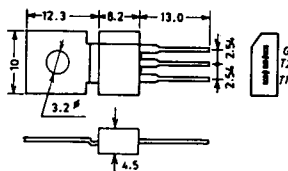


1097A



G: Gate

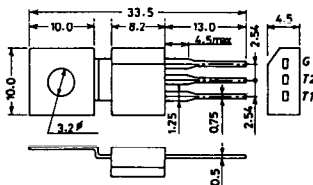
1102



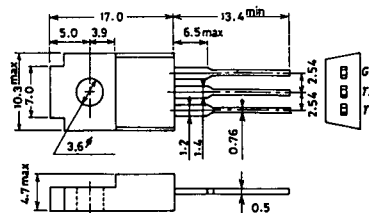
1141



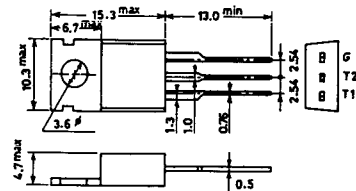
1142



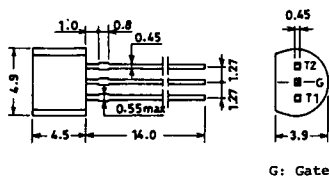
1144



1155

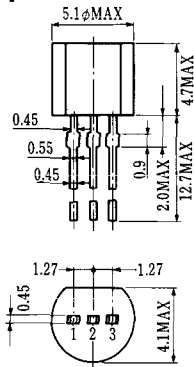


1192A



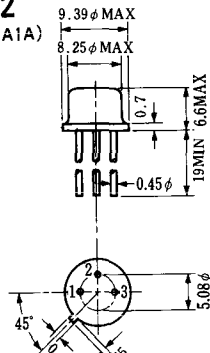
G: Gate

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



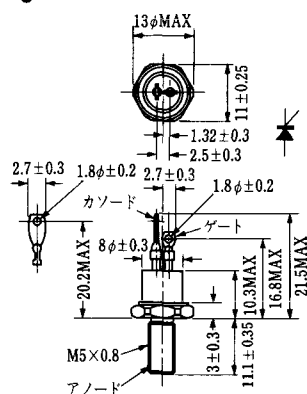
- 1 ゲート
- 2 アノード
- 3 カソード

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



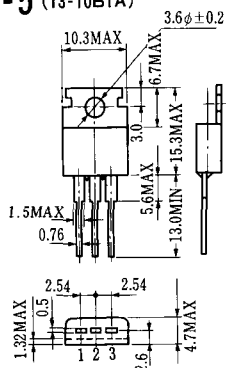
1. カソード
2. ゲート
3. アノード(ケース)

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



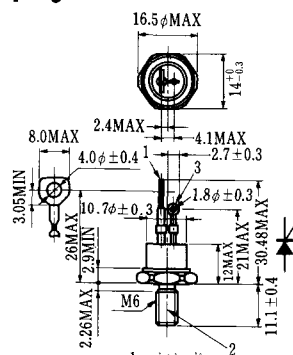
- 1 カソード
- 2 アノード
- 3 ゲート

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



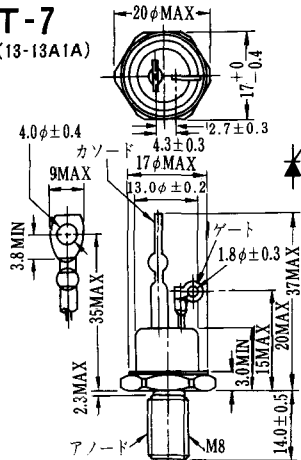
- 1 カソード
- 2 アノード
- 3 ゲート

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

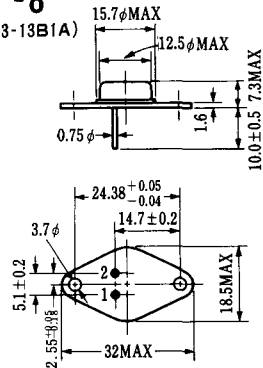


- 1 カソード
- 2 アノード
- 3 ゲート

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

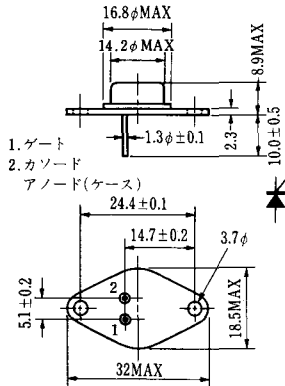


**T-8 (13-13B1A)**



1. ゲート
2. カソード
3. アノード(ケース)

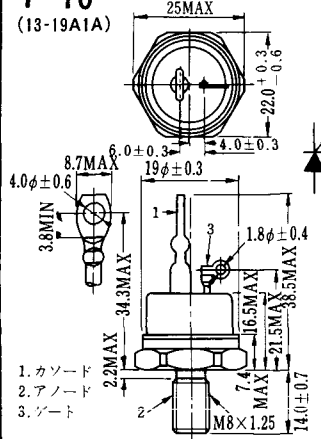
**T-9 (13-14A1A)**



1. ゲート
2. カソード

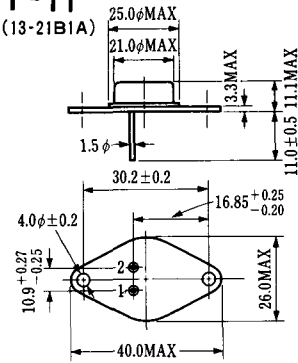
アノード(ケース)

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



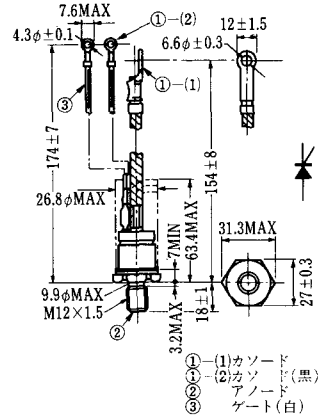
1. カソード
2. アノード
3. ゲート

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



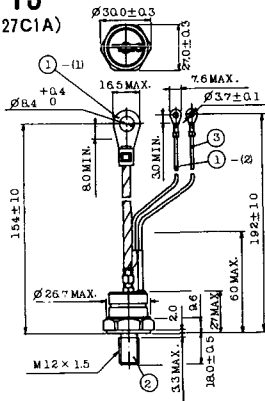
1. ゲート
  2. カソード
- アノード(ケース)

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



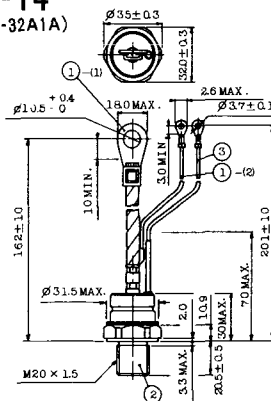
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-13 (13-27C1A)**



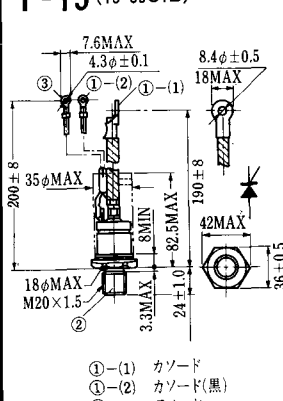
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



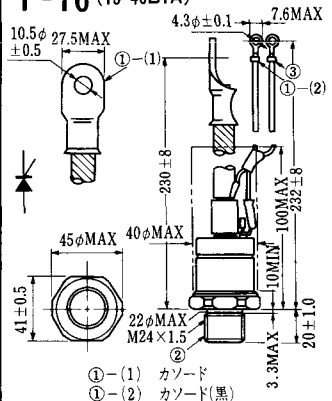
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



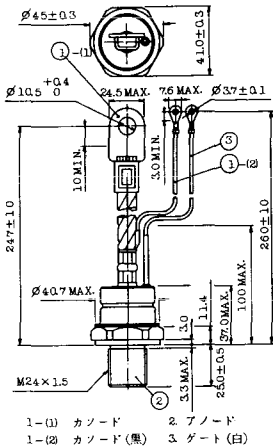
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**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)**



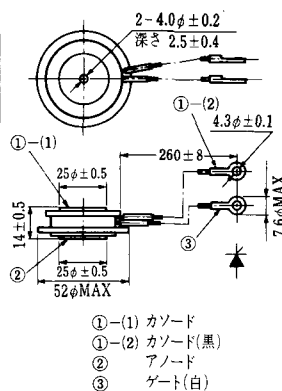
**T-18 (13-45D1A)**



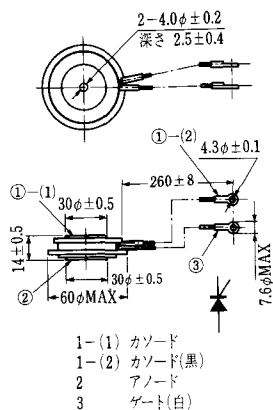
**T-19 (13-52B1A)**



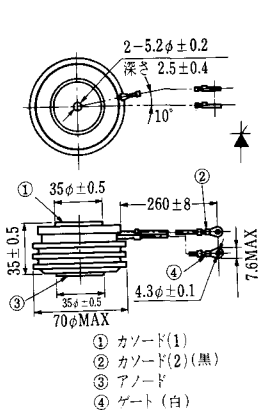
**T-20 (13-52C1A)**



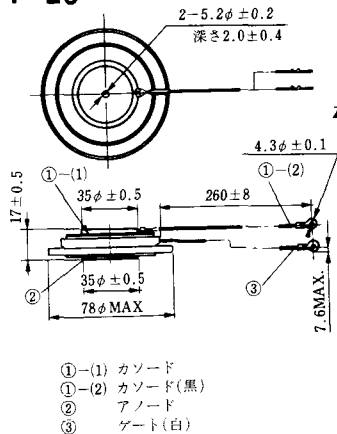
**T-21 (13-60A1A)**



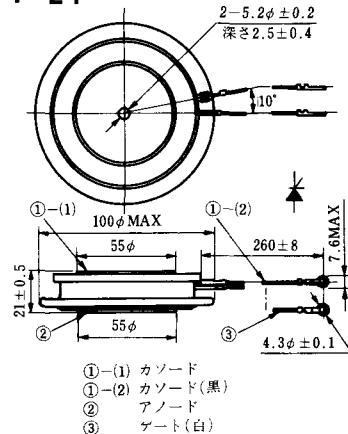
**T-22 (13-70C1A)**



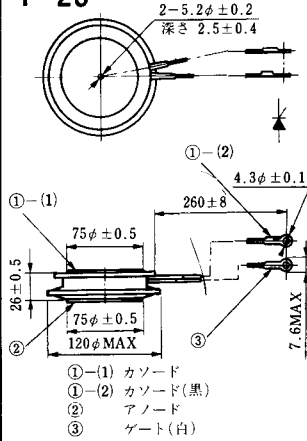
**T-23 (13-78A1A)**



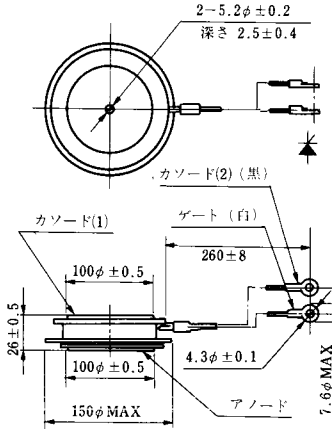
**T-24 (13-100C1A)**



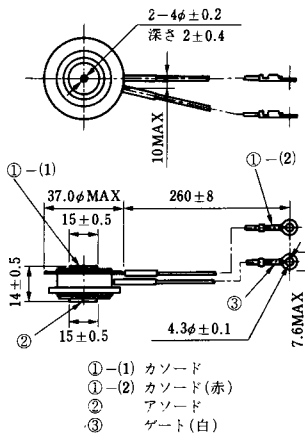
**T-25** (13-120A2A)



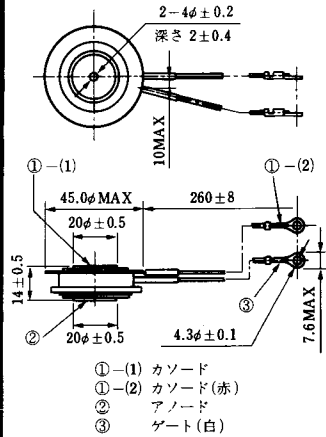
**T-26** (13-150A1A)



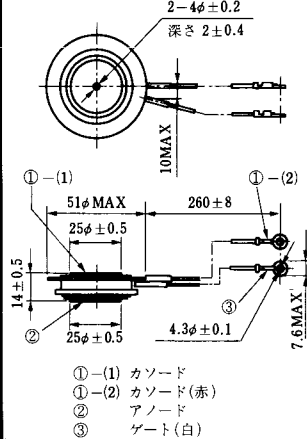
**T-27** (13-37A1A)



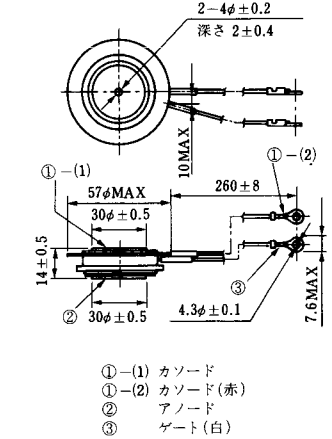
**T-28** (13-45E1A)



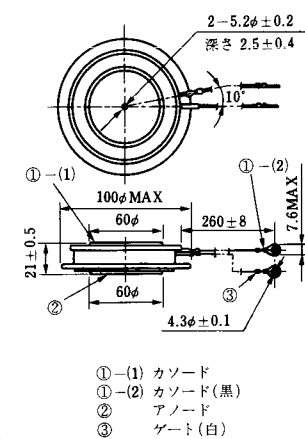
**T-29** (13-51A1A)



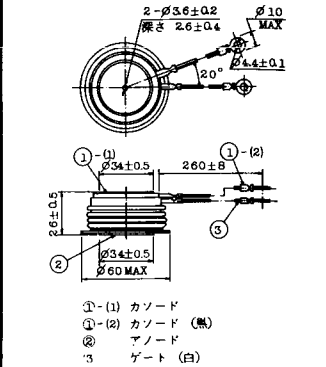
**T-30** (13-57A1A)



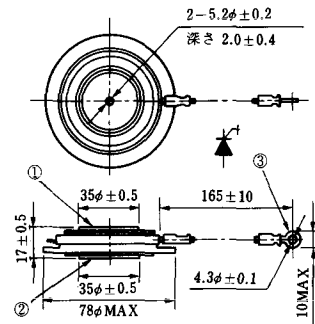
**T-31** (13-100E1A)



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

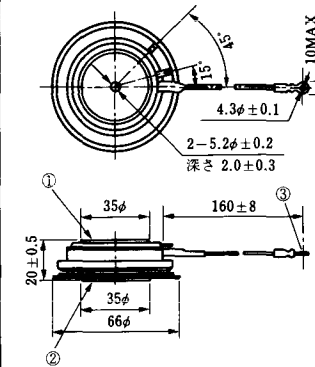


**T-33 (13-78B1A)**



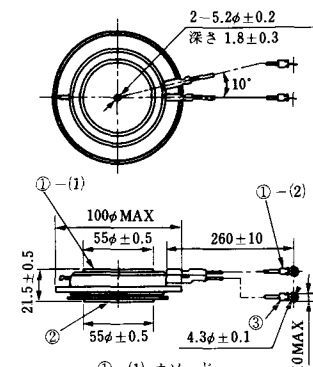
- ① カソード
- ② アノード
- ③ ゲート

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



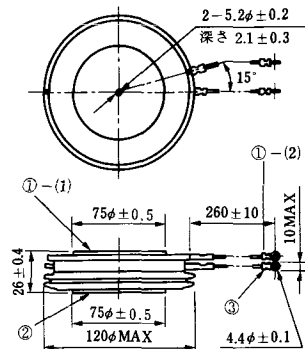
- ① カソード
- ② アノード
- ③ ゲート

**T-35 (13-100D1A)**



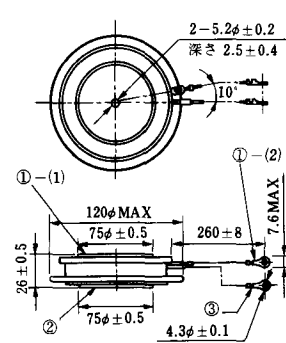
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-36 (13-120E1A)**



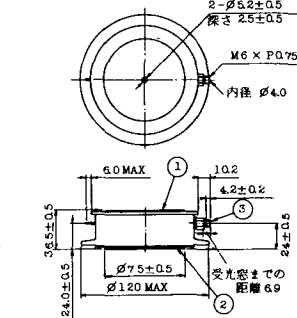
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-37 (13-120A1A)**



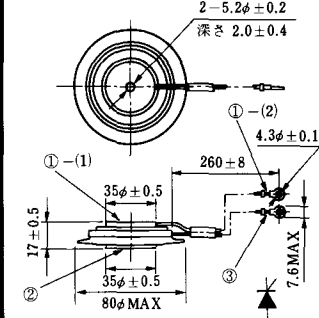
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-38 (13-120C1A)**



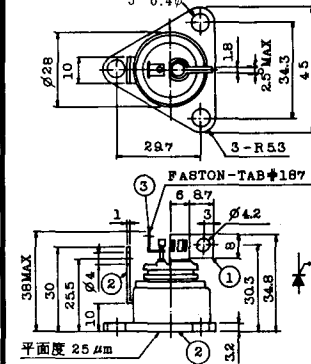
- ① カソード
- ② アノード
- ③ ゲート

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



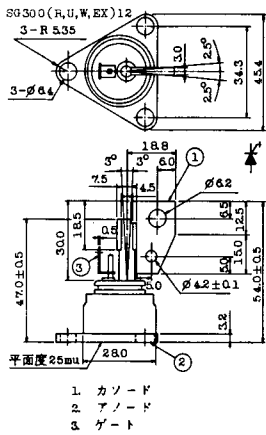
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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

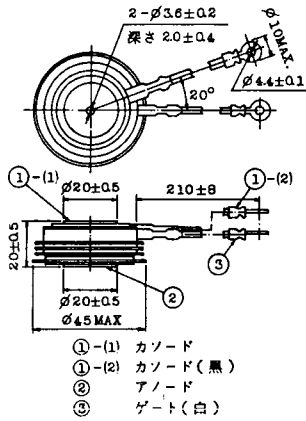


- 1. カソード
- 2. アノード
- 3. ゲート

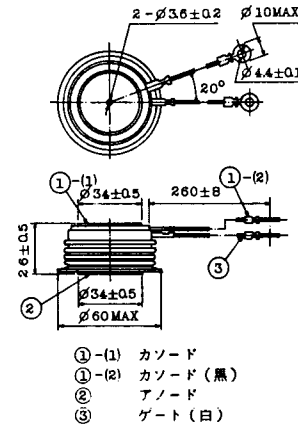
T-41 (13-28A2A)



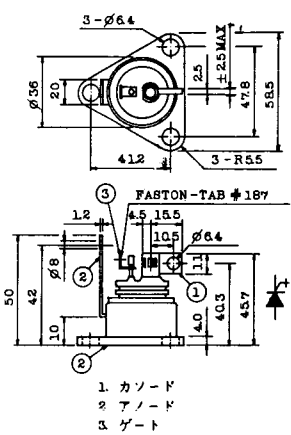
T-42 (13-45F1A)



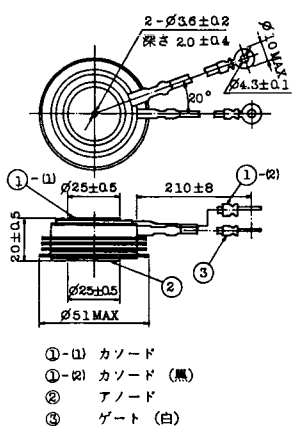
T-43 (13-60E2A)



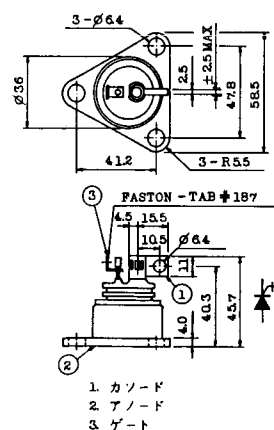
T-44 (13-36A1A)



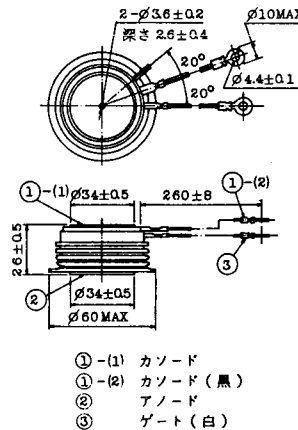
T-45 (13-51B1A)



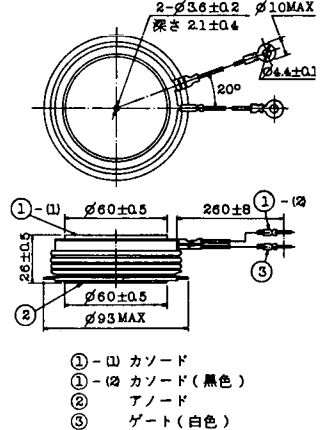
T-46 (13-36B1A)



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)



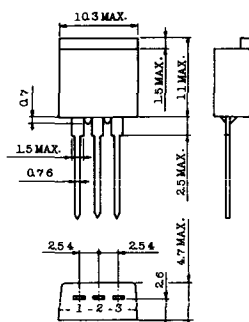
- 1 カソード
- 2 アノード
- 3 ゲート

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)



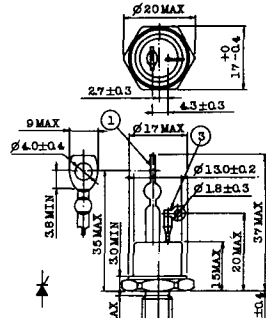
- 1 カソード
- 2 アノード
- 3 ゲート

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

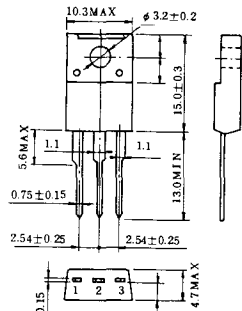


T-57 (12-16C1A)



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)



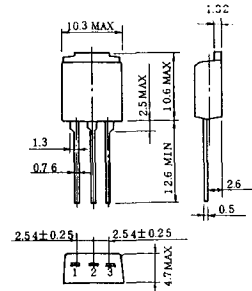
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



- 1-1) カソード
- 1-12) カソード (黒)
- 2) アノード
- 3) ゲート (白)

T-60



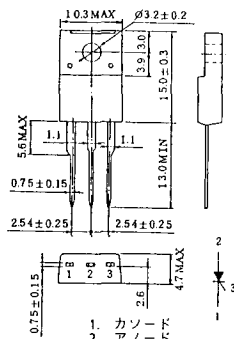
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



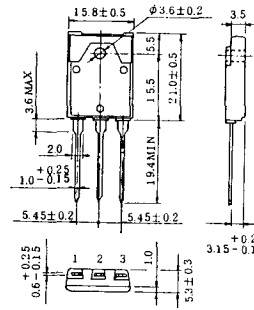
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



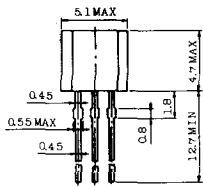
1. カソード
2. アノード
3. ゲート

TT-1



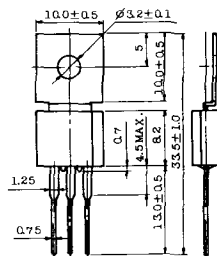
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



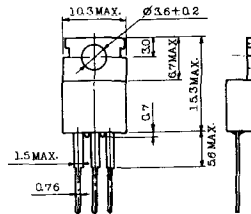
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



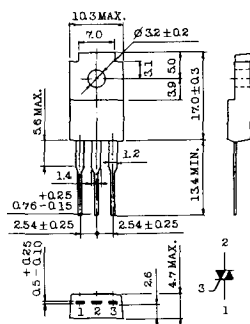
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



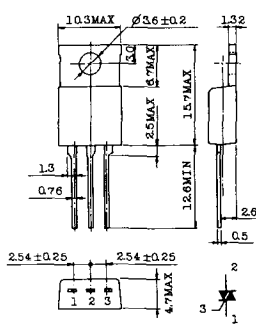
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



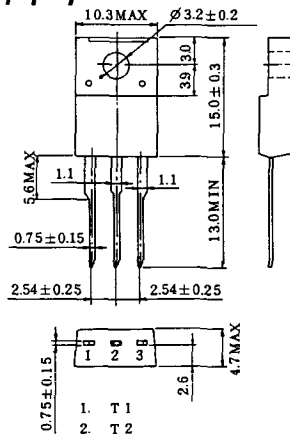
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



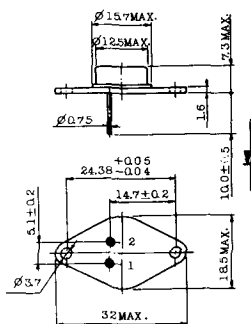
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



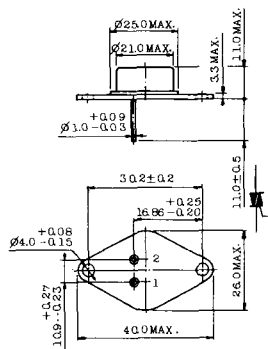
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-8



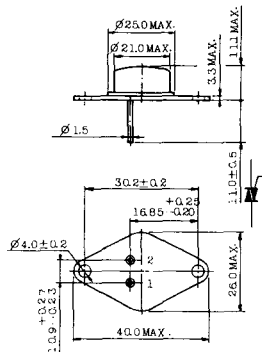
- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



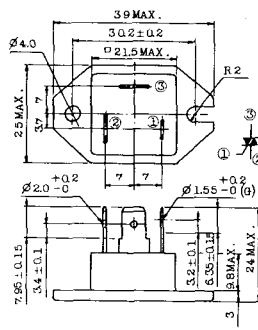
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-10



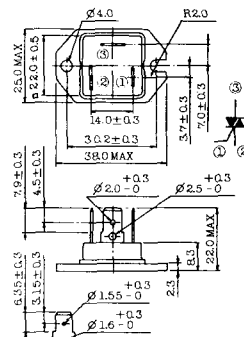
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

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)

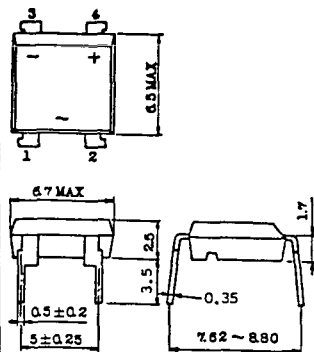
TT-12



ゲート端子詳細

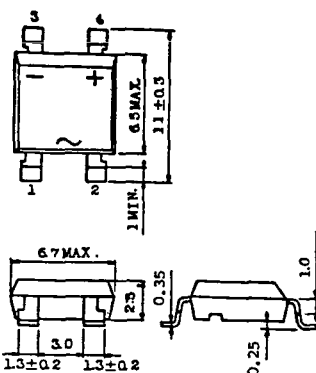
- ① ゲート (フーストン端子 # 187)
- ② T<sub>1</sub> ( " # 250)
- ③ T<sub>2</sub> ( " # 250)

TT-13



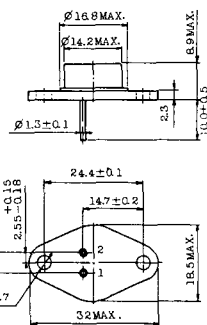
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



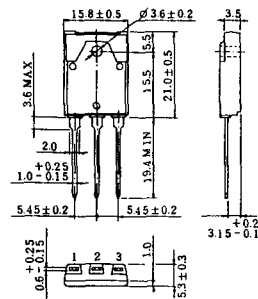
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

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

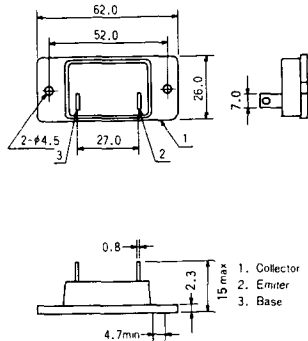


TS-8

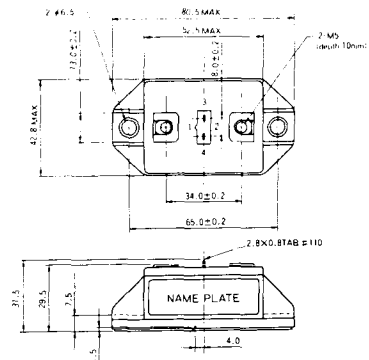


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

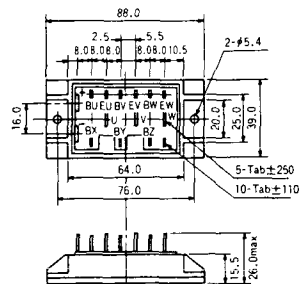
S-62A1A



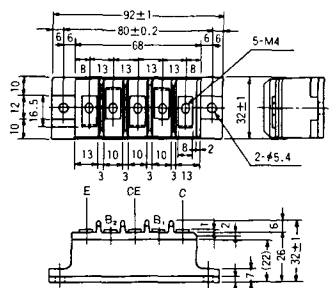
S-80A1A



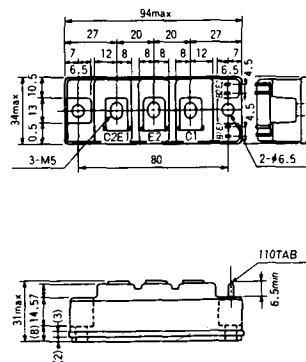
S-88D1A



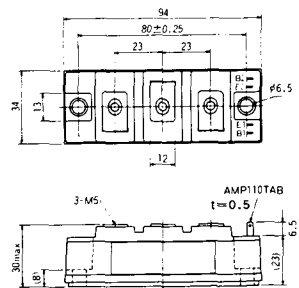
S-92B1A



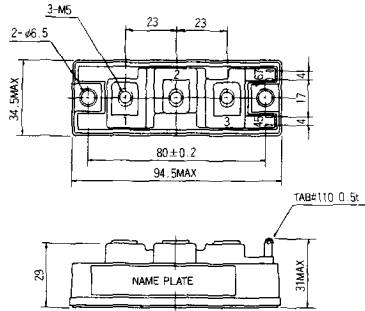
S-94B1A



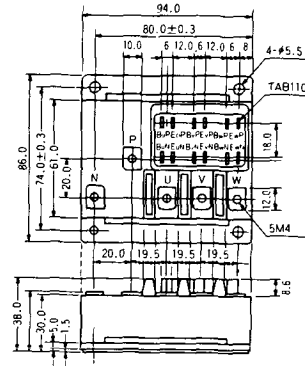
S-94B1B



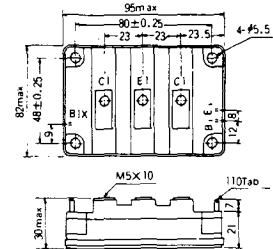
### S-94B2A



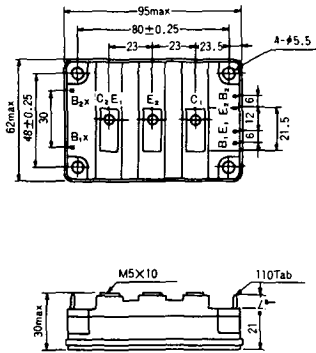
### S-94D1A



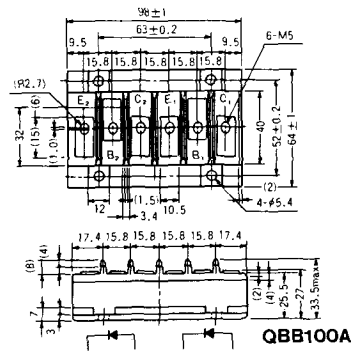
### S-95A1A



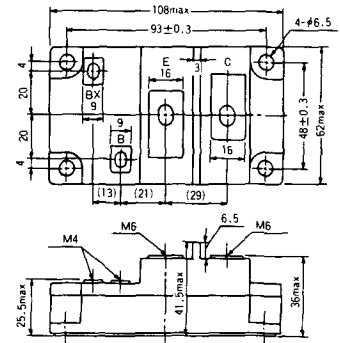
### S-95B1A



### S-98B1B



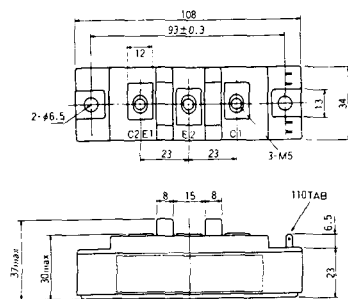
### S-108A2A



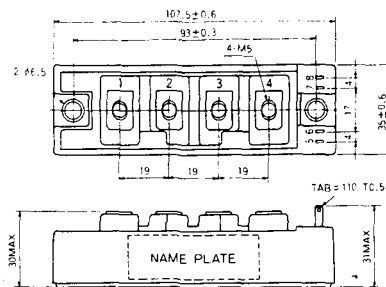
S-108B1A



S-108B1B



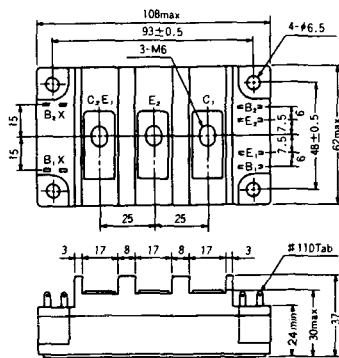
S-108B1C



S-108B2A



S-108B2B





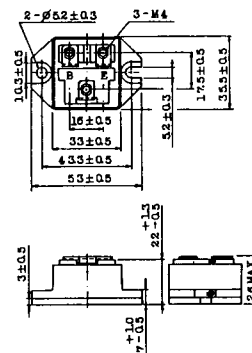
### 2-22B1A



### 2-27A4A



### 2-33C1A



### 2-33D1A



### 2-33F1A



### 2-37A1A

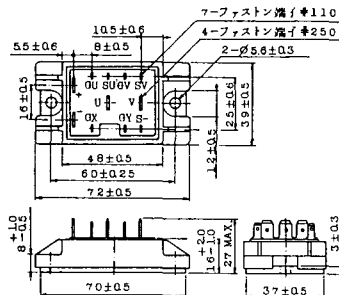


1. スイス  
2. コレクタ (ケース)  
3. ハミツク

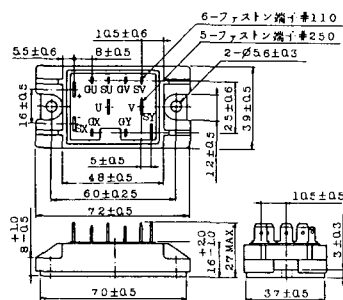
2-48A3A



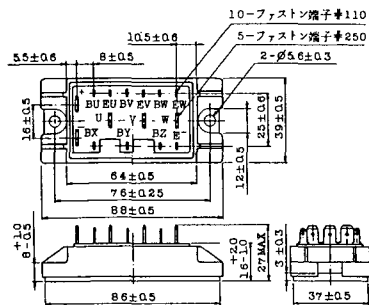
2-48A3B



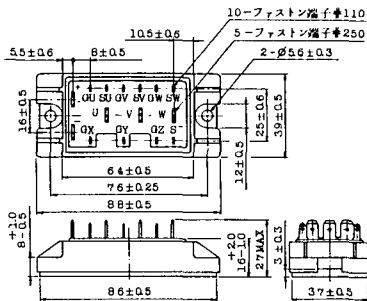
2-48A4A



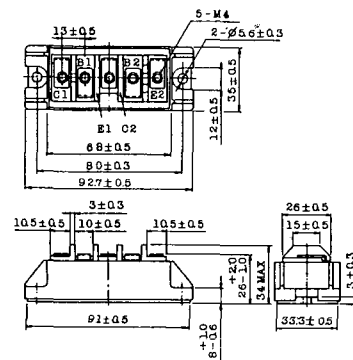
2-64A2A



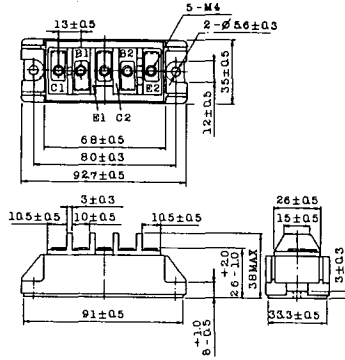
2-64A2B



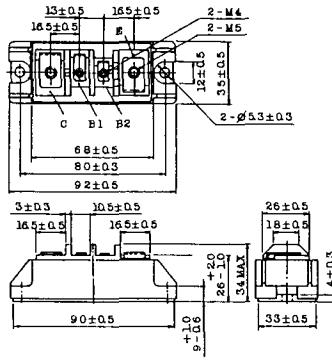
2-68A2A



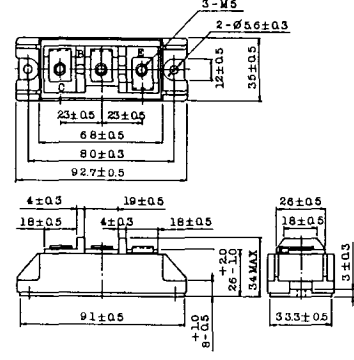
2-68B2A



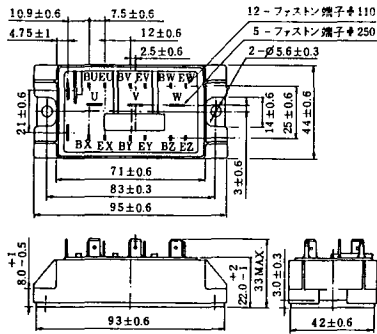
2-68C1A



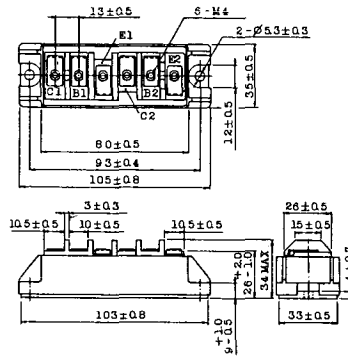
2-68D2A



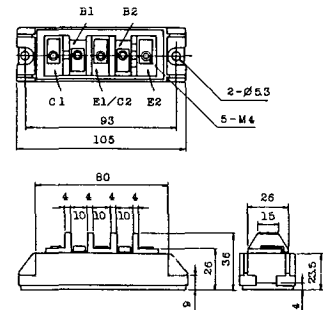
2-72A3A



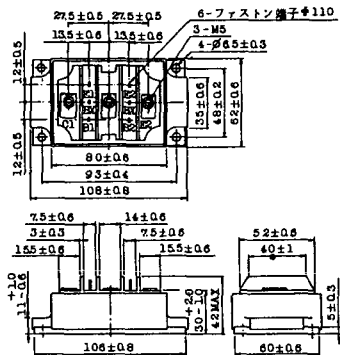
2-80A1A



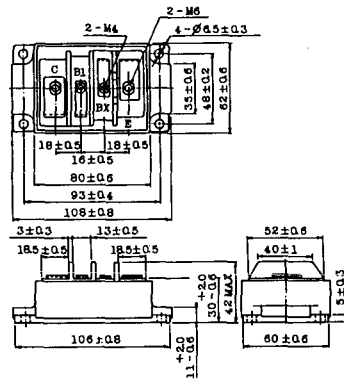
2-80B1A



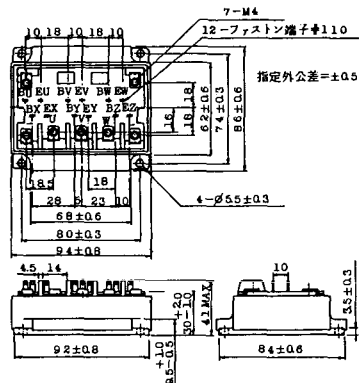
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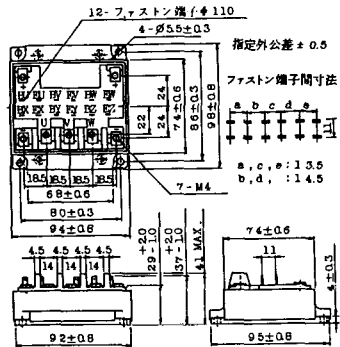
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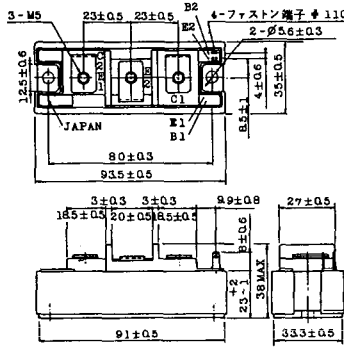
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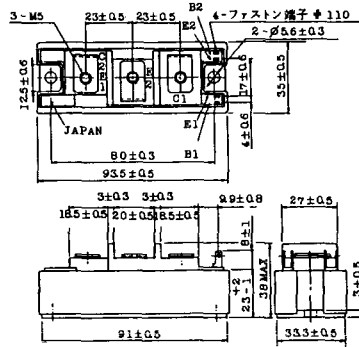
### 2-94B1A



### 2-94C2A



### 2-94C3A



### 2-94D1A



### 2-96A3A



### 2-96A4A



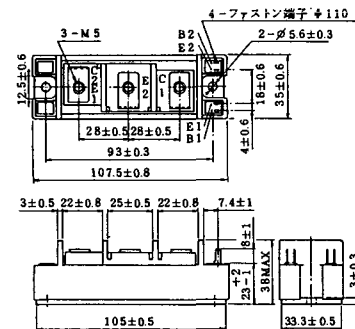
### 2-98B1A



### 2-98C2A



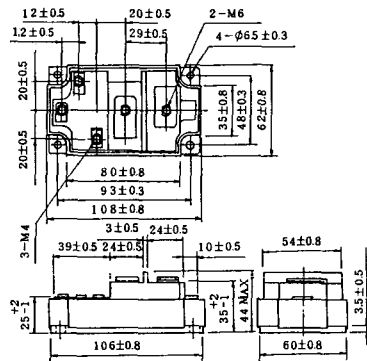
### 2-108A2A



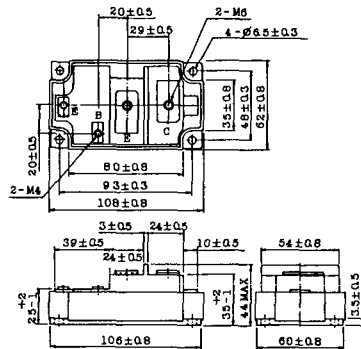
### 2-108B1A



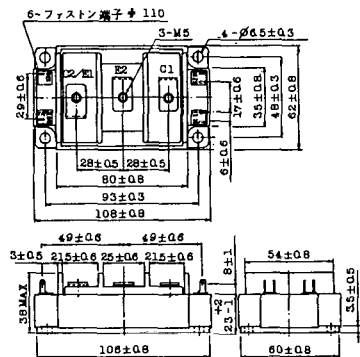
### 2-109A3A



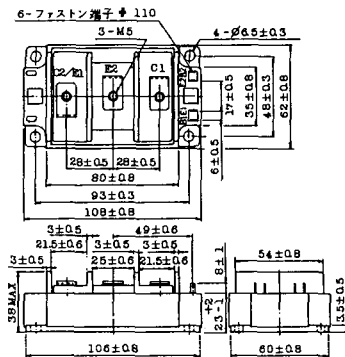
### 2-109A4A



### 2-109B3A

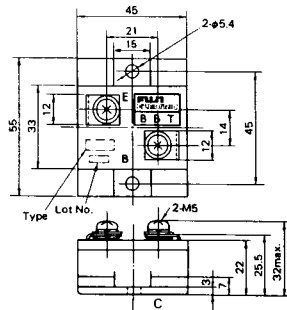


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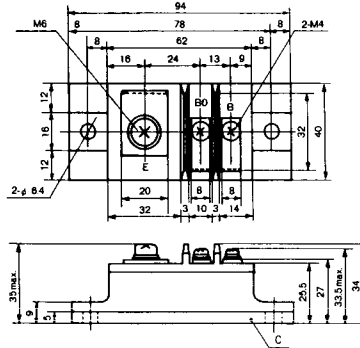
### BBT-II

BBTII  
1D200A-020



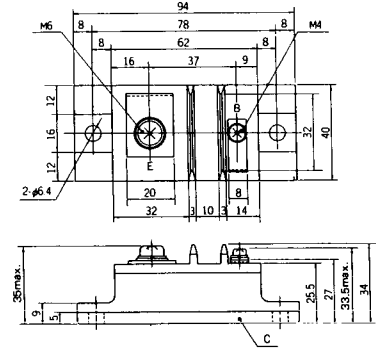
### BBT-III

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



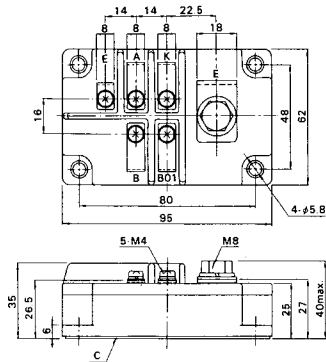
### BBT-III

BBTIII  
ETN01-055  
ET1257

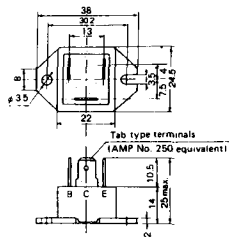


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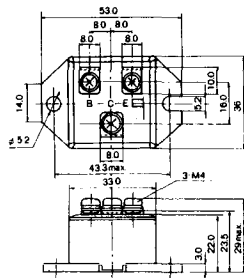
BBTIV  
1D500A-030



M-101



M-102



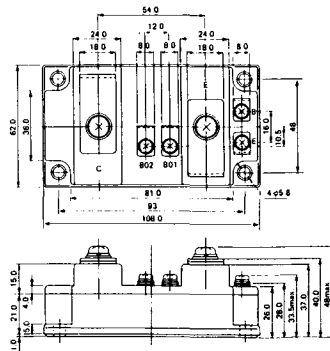
M-103



M-104



M-105



M-106

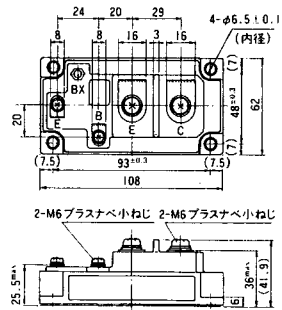




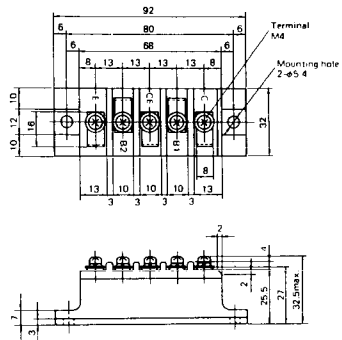
### M-107



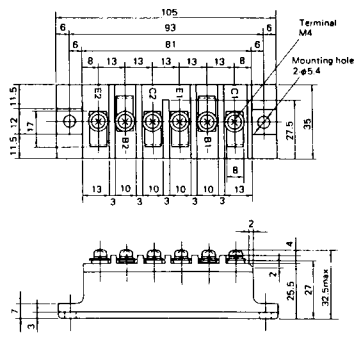
### M-116



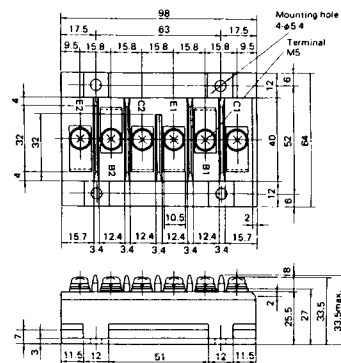
M-201



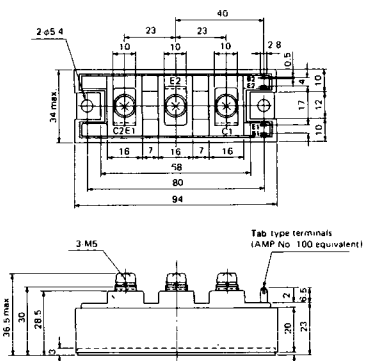
M-202



M-203



M-204



M-205



M-206



M-207



M-208



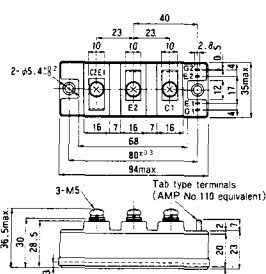
M-209



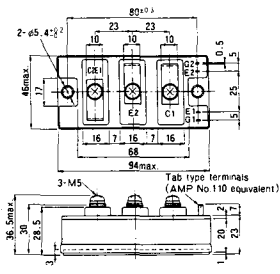
M-210



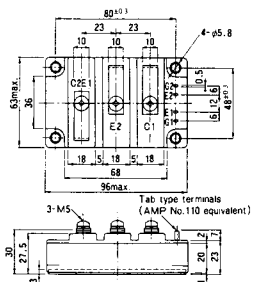
M-211



M-212

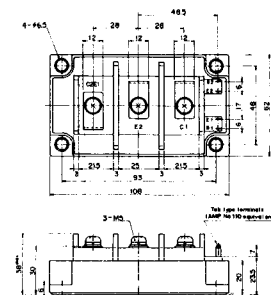


### M-213

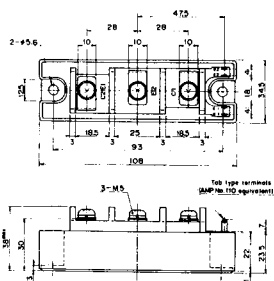


### M-214

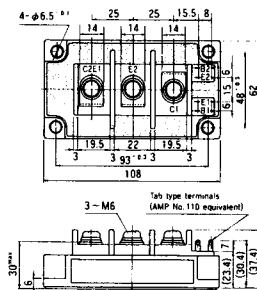
### M-215



### M-216



### M-217



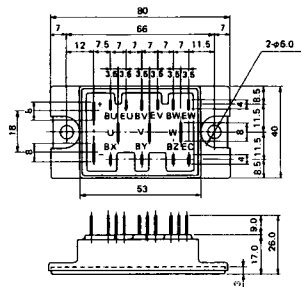
### M-218



M-219



M-601



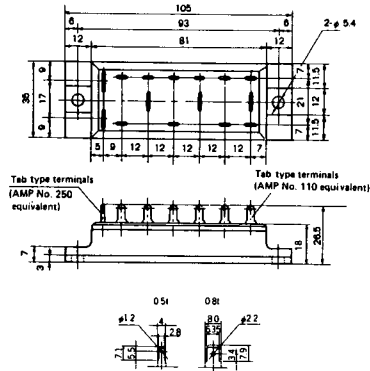
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



M-602



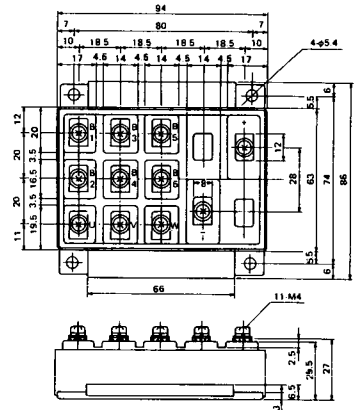
Tab type terminals  
(AMP No. 250 equivalent)



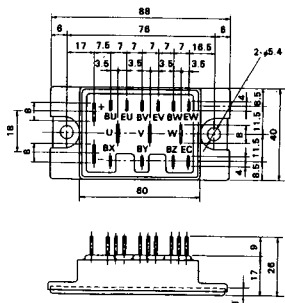
Tab type terminals  
(AMP No. 110 equivalent)



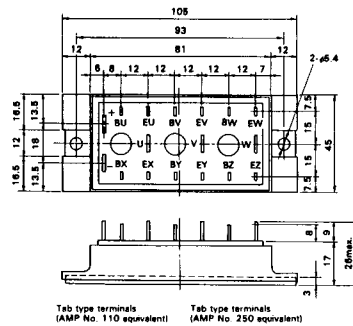
M-603



M-604



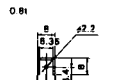
M-605



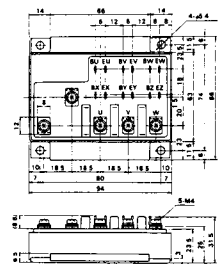
Tab type terminals  
(AMP No. 110 equivalent)



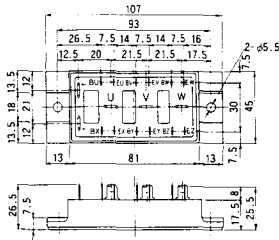
Tab type terminals  
(AMP No. 250 equivalent)



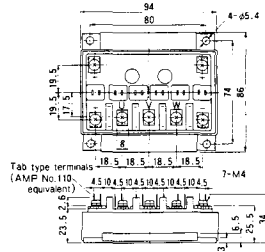
M-606



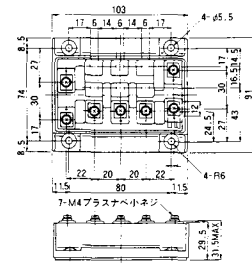
M-607



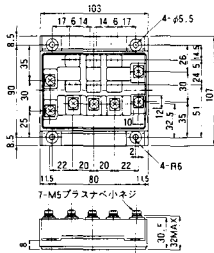
M-608



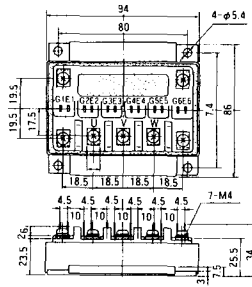
M-609



M-610



M-616









M-3C1A



M-3D6A



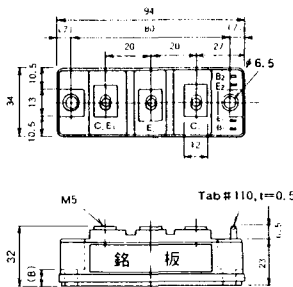
M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



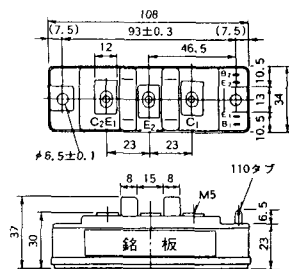
M-5A1A



M-5A1B



M-5A2A



M-5B2A



### M-5C2A



### M-5D2A



### M-6A1A



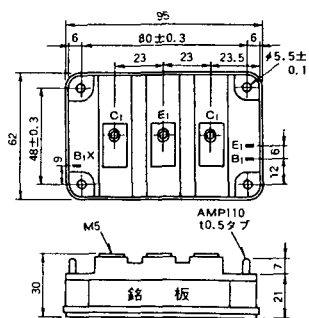
### M-7A1A



### M-7B1A



### M-8A1A





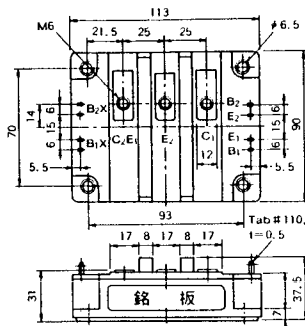




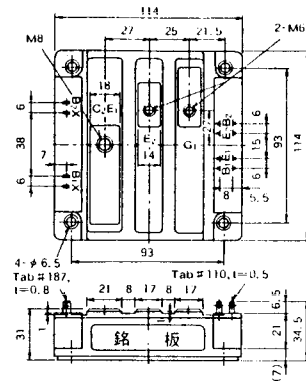
M-10A2A



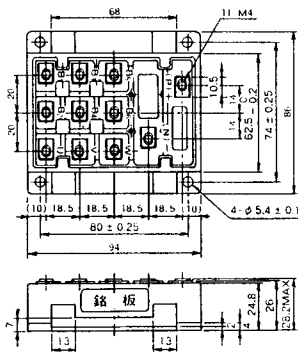
M-10A2B



M-11A2A



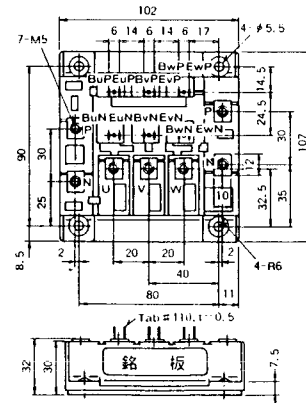
M-12A6A



M-12B6A

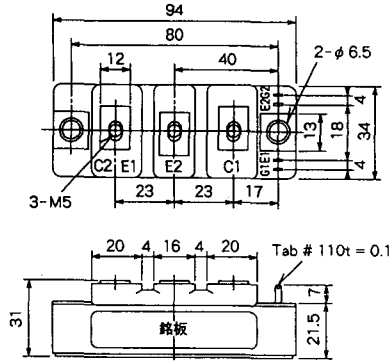


M-12B6B

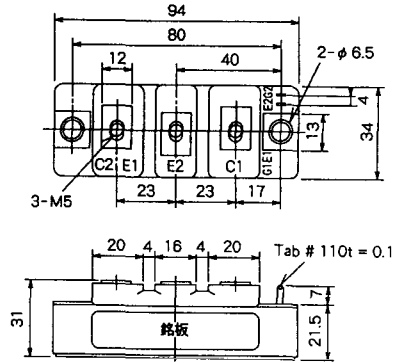




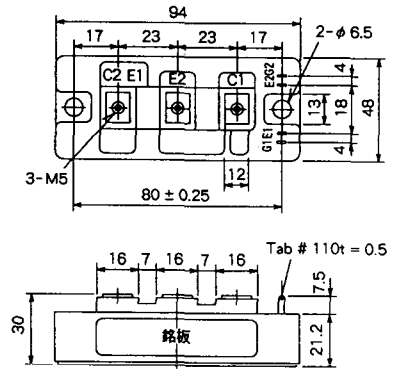
M-4A2D



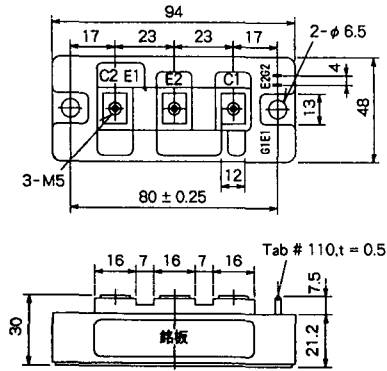
M-4A2E



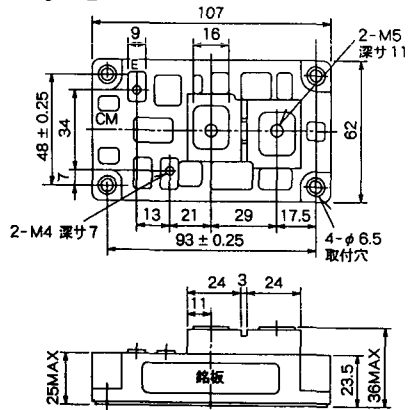
M-4C2A



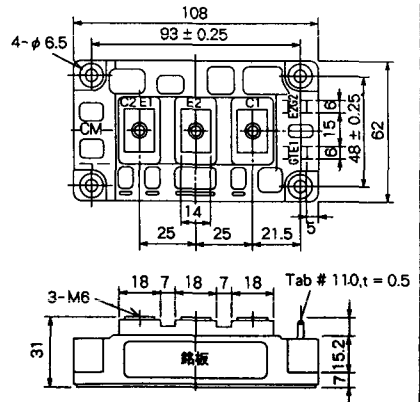
M-4C2B



M-9B1C



M-9D2A



### M-9D2B



### M-10A2C

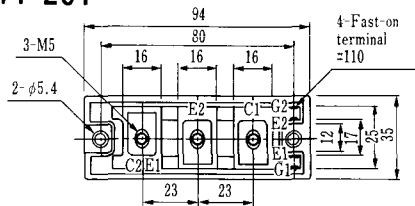


H-101



Weight :480g

### H-201



Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K



