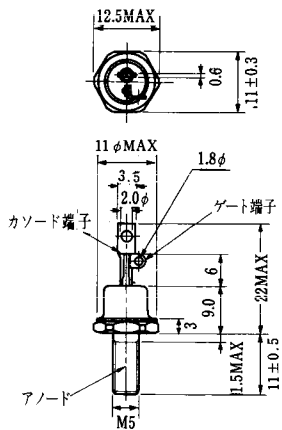


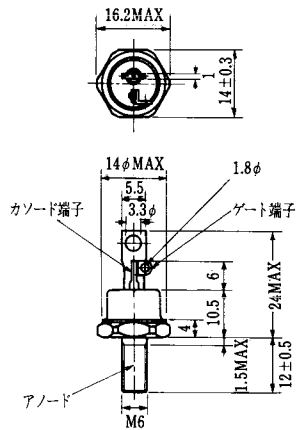
SG300 <sup>1</sup> R, U, W, EX <sub>1</sub> 11 SG300 <sup>1</sup> R, U, W, EX <sub>1</sub> 12 ○チョップパ、インバータ用		■外形図番号 SG300G <sup>1</sup> 11: T-40 (13-28A1A) SG300G <sup>1</sup> 12: T-41 (13-28A2A)		■電気的特性			
■最大定格							
記号	SG300R11 SG300R12	SG300U11 SG300U12	SG300W11 SG300W12	SG300EX11 SG300EX12	単位		
$V_{RRM}$	15				V		
$V_{DRM}$	1300	1600	1800	2500	V		
$I_{TQRM}$	300 ( $V_D = \frac{1}{2} V_{DRM}$ , $V_{DM} = \frac{2}{5} V_{DRM}$ , $C_s = 1 \mu F$ , $R_s = 20 \Omega$ , $T_j = 125^\circ C$ )				A		
$I_{T(RMS)}$	120 ( $T_j = 70^\circ C$ )				A		
$f_{TSM}$	2000/2200 (50Hz/60Hz, 正弦半波1サイクル)				A		
$I^2 \cdot t$					A <sup>2</sup> S		
$di/dt$	200 ( $I_{GP} = 7 A$ , $t_r = 1 \mu s$ , $V_D = \frac{1}{2} V_{DRM}$ , $I_{TM} = 300 A$ , $f = 50 Hz$ , $T_j = 125^\circ C$ )				A/ $\mu s$		
$I_{GFM}$	20 (パルス幅: max. 20 $\mu s$ , duty: max. 20%)				A		
$P_{GFAV}$	4				W		
$I_{GR(RMS)}$	20				A		
$P_{GRM}$	2000 (パルス幅: max. 20 $\mu s$ , duty: max. 2%)				W		
$V_{GRM}$	15				V		
$T_j$	125				°C		
$T_{HB}$	-40~125				°C		
記号	測定条件			Min	Typ	Max	単位
$I_{RRM}$	$T_j = 125^\circ C$ , $V_D = V_{RRM}$					10	A
$I_{DRM}$	$T_j = 125^\circ C$ , $V_D = V_{DRM}$ , $R_{GK} = 20 \Omega$					10	mA
$I_{CRM}$	$T_j = 125^\circ C$ , $V_D = V_{CRM}$					10	mA
$V_{TM}$	$T_j = 25^\circ C$ , $I_{TM} = 300 A$					2.4	V
$V_{GT}$	$T_j = 25^\circ C$ , $V_D = 12 V$				0.75	1.0	V
$I_{GT}$	$R_L = 0.5 \Omega$				200	500	mA
$V_{GD}$	$T_j = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$			0.3			V
$I_{GD}$				5			mA
$t_d$	$T_j = 25^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$					2.5	$\mu s$
$t_{st}$	$I_{TM} = 300 A$					7.6	$\mu s$
	$di/dt = 200 A/\mu s$					7.0	
	$I_{GP} = 7 A$ , $t_r = 1 \mu s$					6.8	
						6.0	
$dv/dt$	$T_j = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$			600			V/ $\mu s$
$I_H$	$T_j = 25^\circ C$ , $R_L = 0.5 \Omega$				10		A
$t_s$	$T_j = 120^\circ C$ , $I_{FM} = 300 A$					12	$\mu s$
$t_{ex}$	$V_D = \frac{1}{2} V_{DRM}$					14	$\mu s$
	$V_{DM} = \frac{2}{5} V_{DRM}$					62	
	$C_s = 1 \mu F$					58	
	$R_s = 20 \Omega$					56	
$t_{hol}$	$di_g/dt = -12 A/\mu s$					50	A
						80	
$I_{GR}$						110	A
$R_{th}$	接合-フィン間, DC					0.13	°C/W

SG400 <sup>1</sup> R, U, W, EX <sub>1</sub> 11 ○チョップパ、インバータ用		■外形図番号 T-40 (13-28A1A)		■電気的特性			
■最大定格							
記号	SG400R11	SG400U11	SG400W11	SG400EX11	単位		
$V_{RRM}$	15				V		
$V_{DRM}$	1300	1600	1800	2500	V		
$I_{TQRM}$	400 ( $V_D = \frac{1}{2} V_{DRM}$ , $V_{DM} = \frac{2}{5} V_{DRM}$ , $C_s = 1 \mu F$ , $R_s = 20 \Omega$ , $T_j = 125^\circ C$ )				A		
$I_{T(RMS)}$	150 ( $T_j = 70^\circ C$ )				A		
$f_{TSM}$	2600/2860 (50Hz/60Hz, 正弦半波1サイクル)				A		
$I^2 \cdot t$					A <sup>2</sup> S		
$di/dt$	200 ( $I_{GP} = 7 A$ , $t_r = 1 \mu s$ , $V_D = \frac{1}{2} V_{DRM}$ , $I_{TM} = 400 A$ , $f = 50 Hz$ , $T_j = 125^\circ C$ )				A/ $\mu s$		
$I_{GFM}$	20 (パルス幅: max. 20 $\mu s$ , duty: max. 20%)				A		
$P_{GFAV}$	4				W		
$I_{GR(RMS)}$	20				A		
$P_{GRM}$	4000 (パルス幅: max. 20 $\mu s$ , duty: max. 2%)				W		
$V_{GRM}$	15				V		
$T_j$	125				°C		
$T_{HB}$	-40~125				°C		
記号	測定条件			Min	Typ	Max	単位
$I_{RRM}$	$T_j = 125^\circ C$ , $V_D = V_{RRM}$					10	A
$I_{DRM}$	$T_j = 125^\circ C$ , $V_D = V_{DRM}$ , $R_{GK} = 20 \Omega$					10	mA
$I_{CRM}$	$T_j = 125^\circ C$ , $V_D = V_{CRM}$					10	mA
$V_{TM}$	$T_j = 25^\circ C$ , $I_{TM} = 400 A$					2.4	V
$V_{GT}$	$T_j = 25^\circ C$ , $V_D = 12 V$				0.75	1.0	V
$I_{GT}$	$R_L = 0.5 \Omega$				200	500	mA
$V_{GD}$	$T_j = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$			0.3			V
$I_{GD}$				5			mA
$t_d$	$T_j = 25^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$					2.5	$\mu s$
$t_{st}$	$I_{TM} = 400 A$					7.6	$\mu s$
	$di/dt = 200 A/\mu s$					7.0	
	$I_{GP} = 7 A$ , $t_r = 1 \mu s$					6.8	
						6.0	
$dv/dt$	$T_j = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$			600			V/ $\mu s$
$I_H$	$T_j = 25^\circ C$ , $R_L = 0.5 \Omega$				10		A
$t_s$	$T_j = 120^\circ C$ , $I_{FM} = 400 A$					13	$\mu s$
$t_{ex}$	$V_D = \frac{1}{2} V_{DRM}$					15	$\mu s$
	$V_{DM} = \frac{2}{5} V_{DRM}$					62	
	$C_s = 1 \mu F$					58	
	$R_s = 20 \Omega$					56	
$t_{hol}$	$di_g/dt = -12 A/\mu s$					50	A
						95	
$I_{GR}$						125	A
$R_{th}$	接合-ケース間, DC					0.13	°C/W

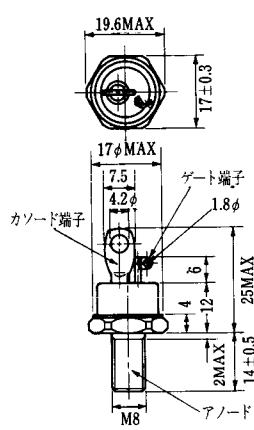
FD-1



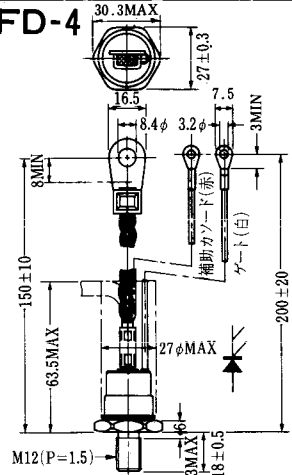
FD-2



FD-3



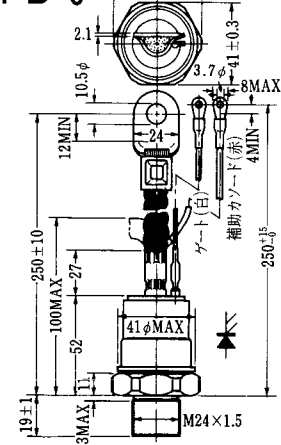
FD-4



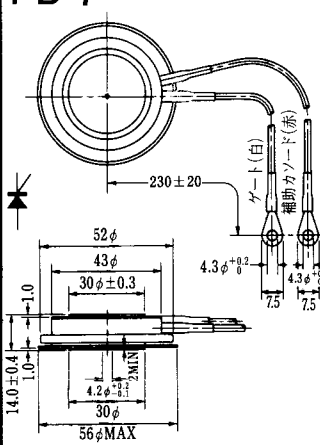
FD-5



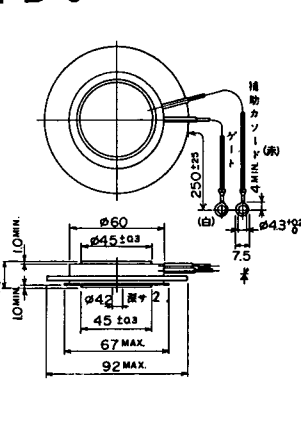
FD-6



FD-7



FD-8



FD-9



FD-10



FD-11

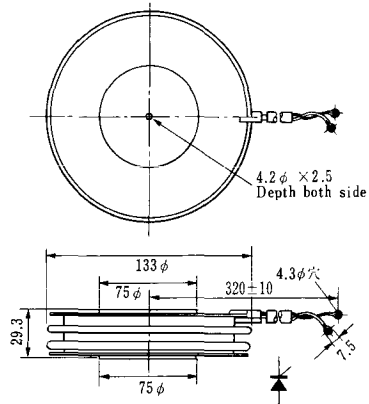
FD-12



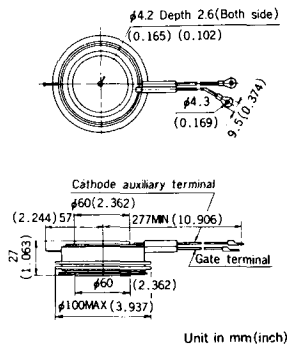


《寸法図単位：mm》

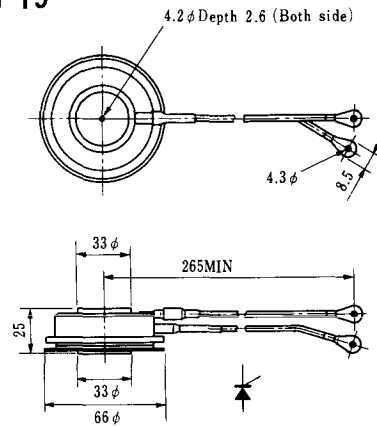
### H-17



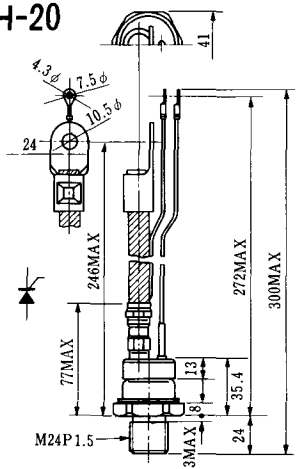
### H-18



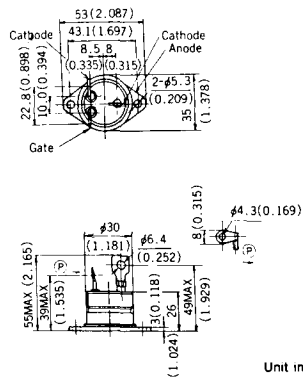
### H-19



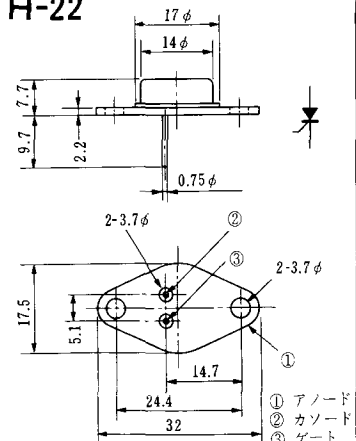
### H-20



### H-21



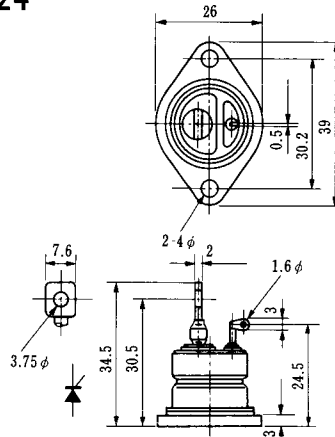
### H-22



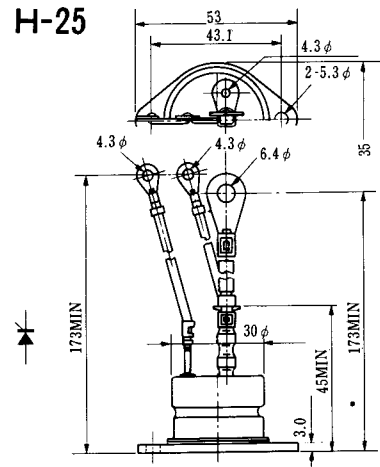
### H-23



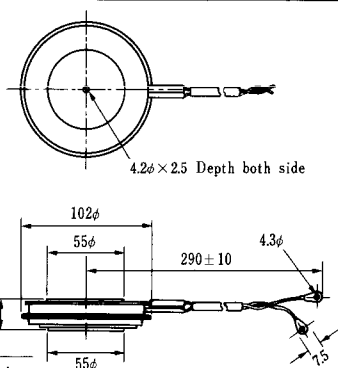
### H-24



### H-25



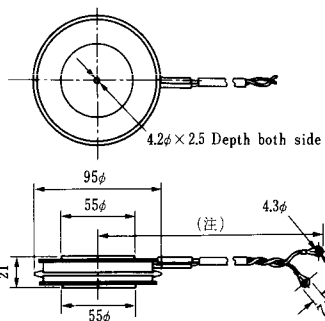
### H-26



Type	Direction of polarity
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CA12	
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### H-27

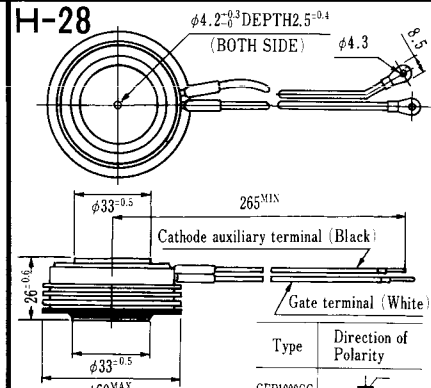


Type	Direction of polarity
------	-----------------------

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

### H-28



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

GFP100GG	
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Weight: 360(g)

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



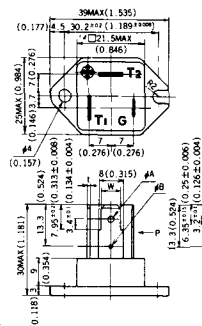
Note : The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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



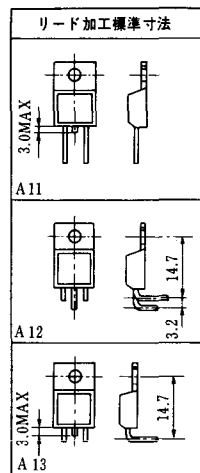
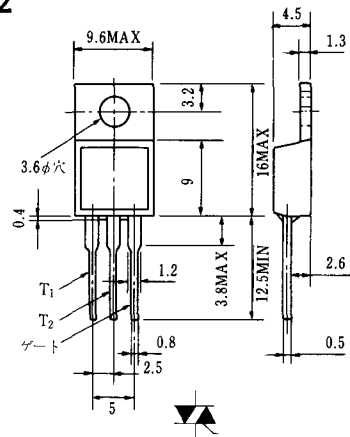
# HT-1



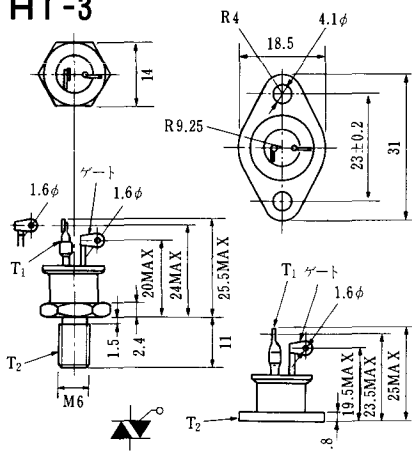
TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup> <sub>0</sub> )	1.3 (0.051)
T <sub>2</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup> <sub>0</sub>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

Unit in mm (inch)

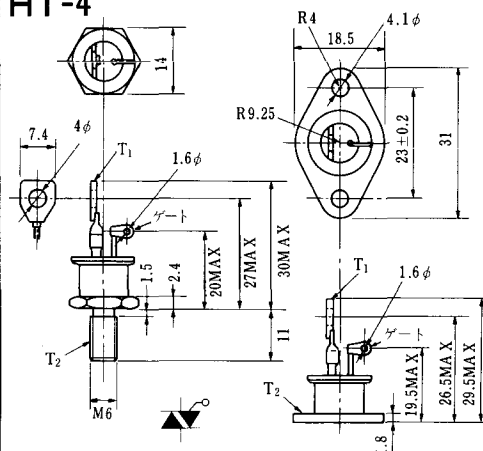
# HT-2



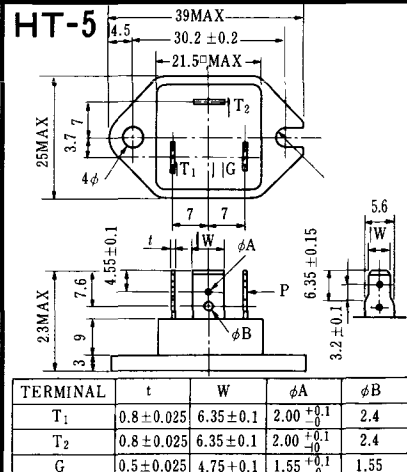
# HT-3



# 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



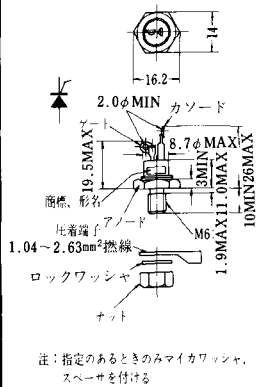
### M-3



### M-4



### M-5



### M-6



### M-7



### M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15

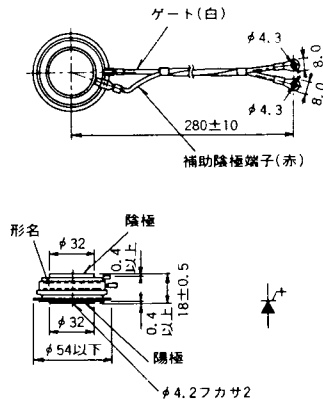


M-16

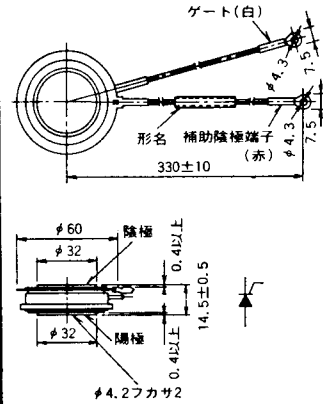




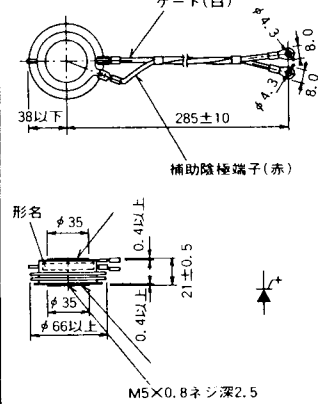
M-25



M-26



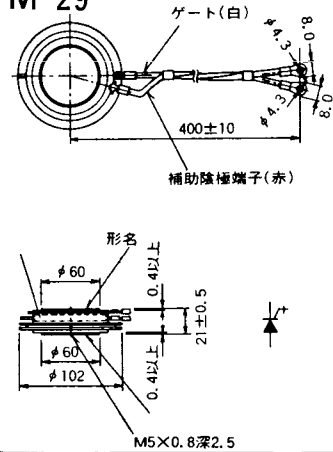
M-27



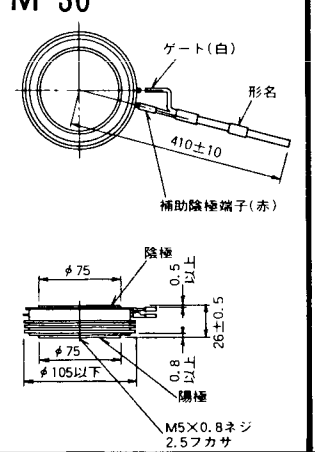
M-28



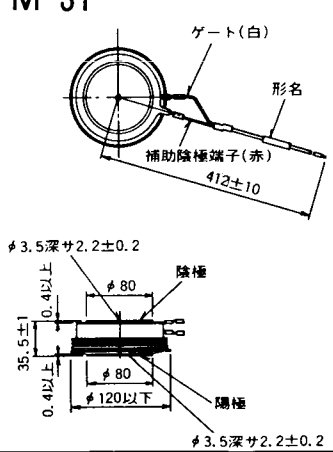
M-29



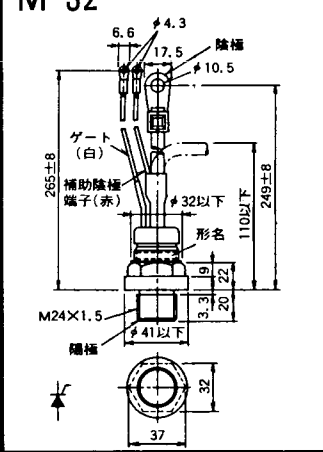
M-30



M-31



M-32



### M-33



### M-34



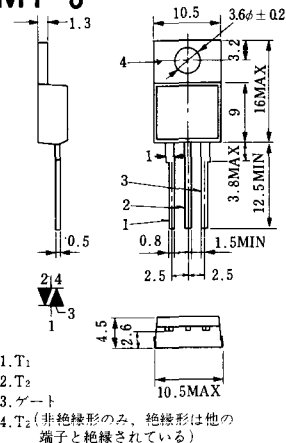
### MT-1



### MT-2



### MT-3



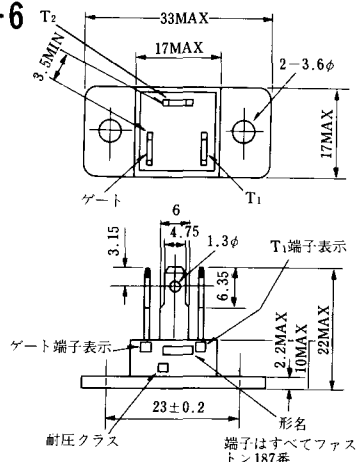
### MT-4



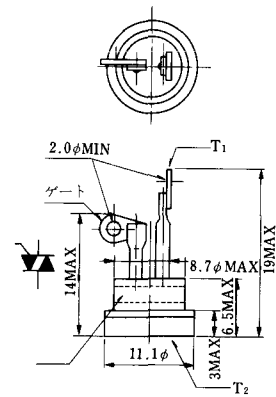
### MT-5



### MT-6



### MT-7



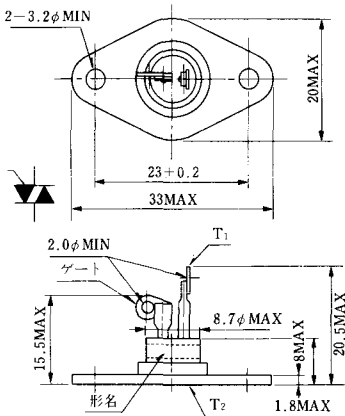
1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート
4. T<sub>2</sub> (非絶縁形のみ、絶縁形は他の端子と絶縁されている)

端子はすべてファス  
マン187番

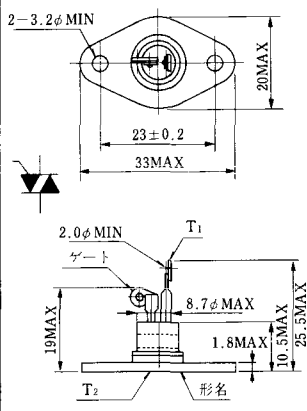
MT-8



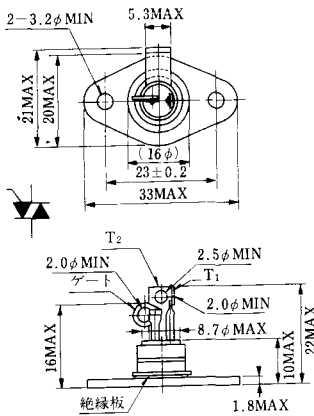
MT-9



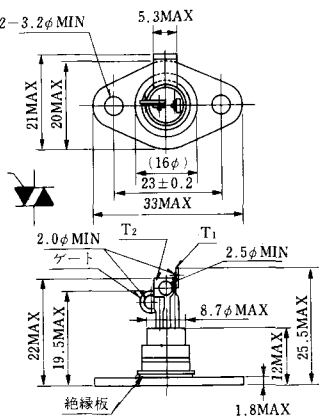
MT-10



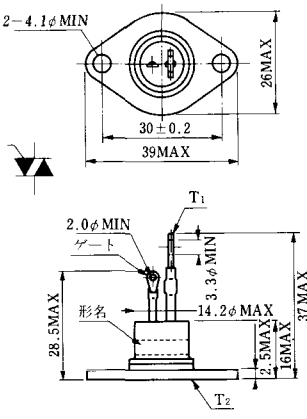
MT-11



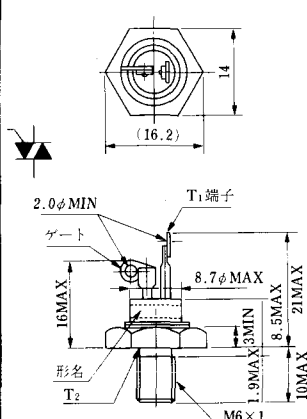
MT-12



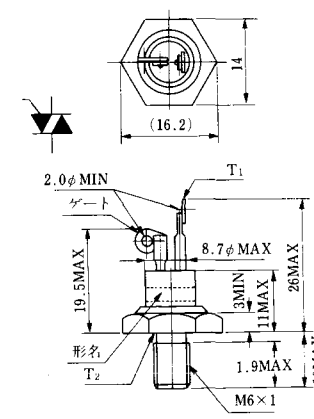
MT-13



MT-14



MT-15

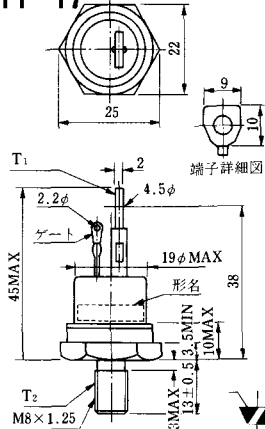




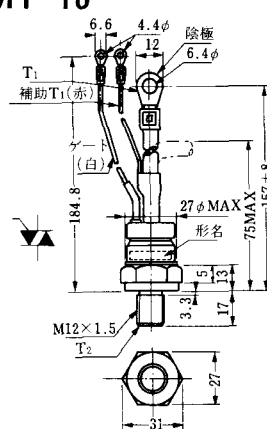
MT-16



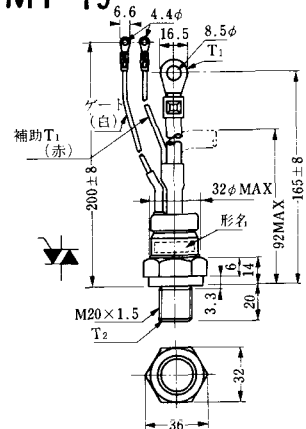
MT-17



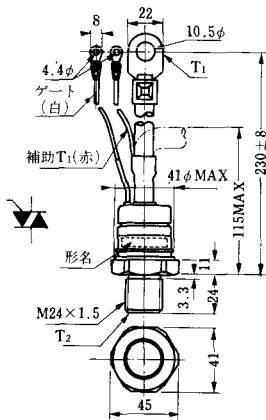
MT-18



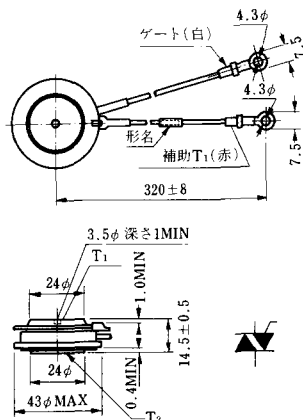
MT-19



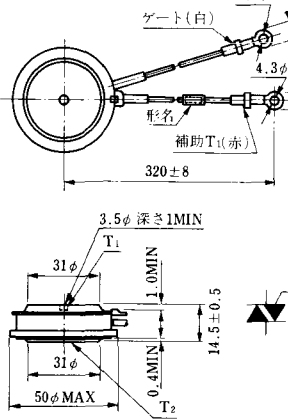
MT-20



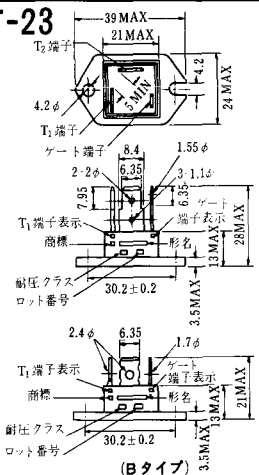
MT-21



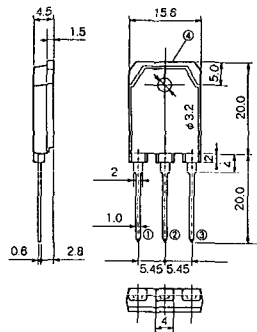
MT-22



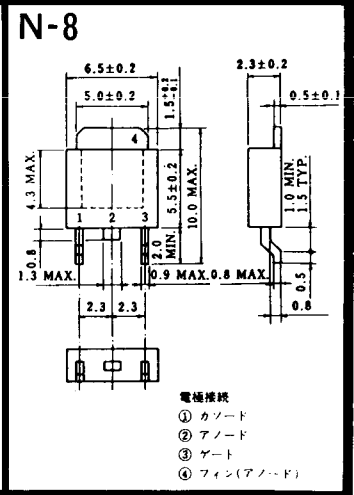
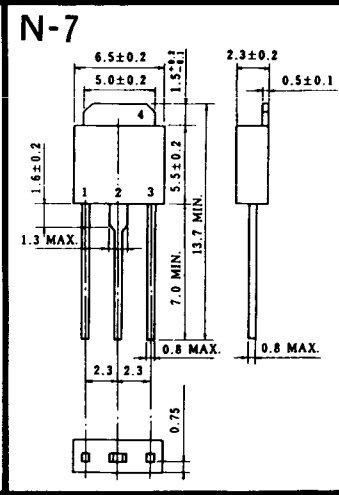
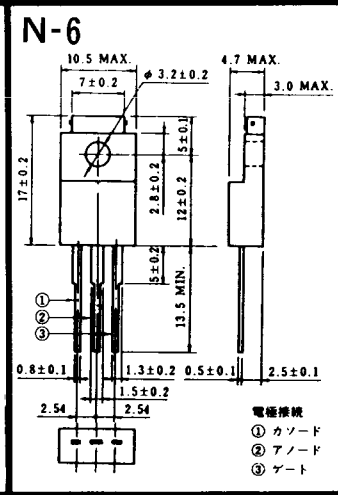
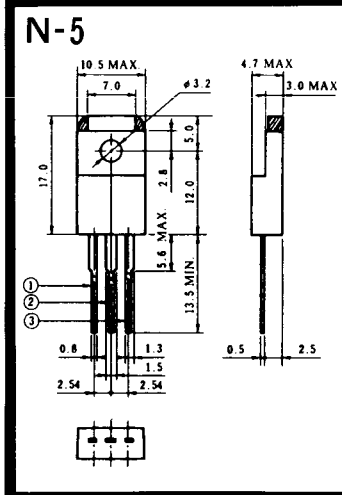
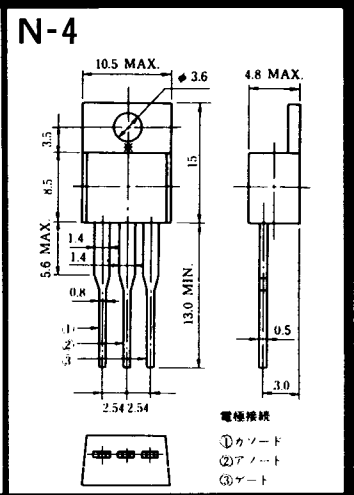
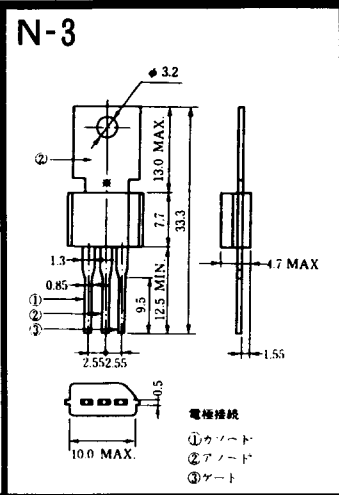
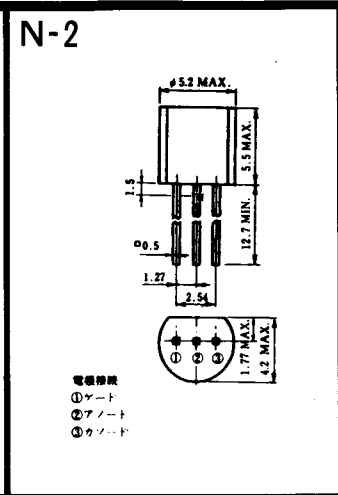
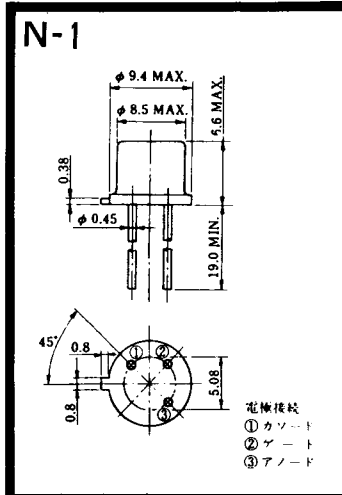
MT-23



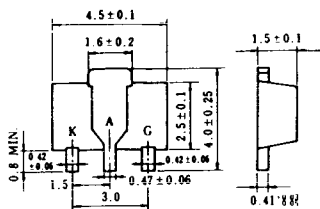
# MT-24



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



N-9



電極接続

K : カソード

A : アノード

G : ゲート

### NA-1

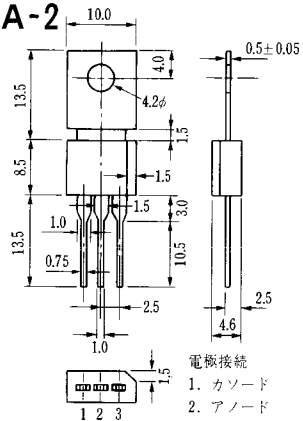


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

### NA-2

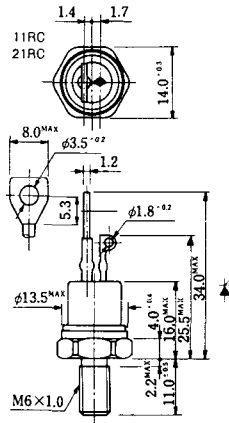


電極接続

1. カソード
2. アノード
3. ゲート

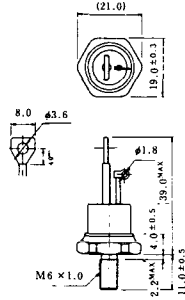
JEDEC: TO-202AA

### NI-1



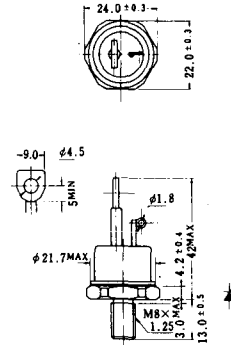
### NI-2

29RD



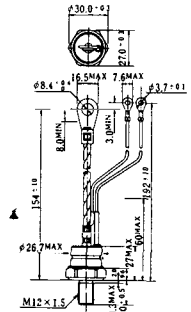
### NI-3

39RC  
59RC  
39RF  
59RF



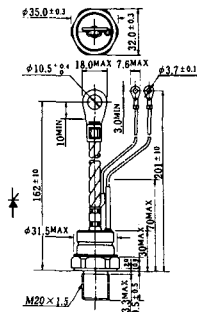
### NI-4

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



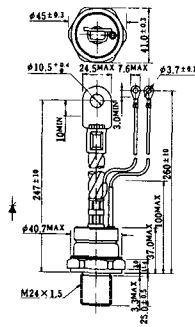
### NI-5

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



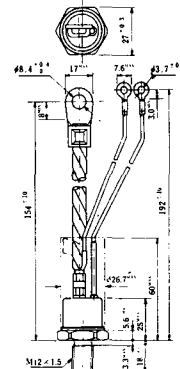
### NI-6

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



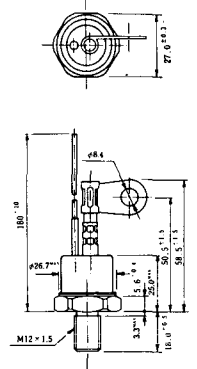
### NI-7

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



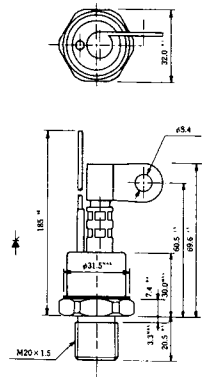
### NI-8

89RW  
129RW



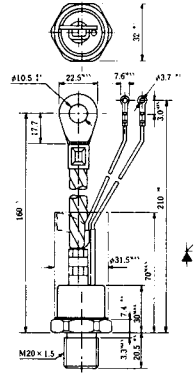
### NI-9

259RW  
309RW



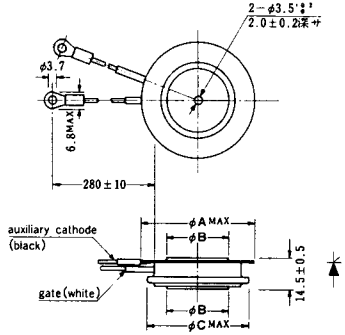
### NI-10

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



### NI-11

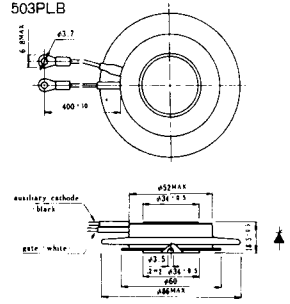
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



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

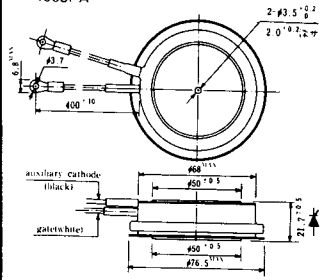
### NI-12

403PAB  
503PAB  
503PLB



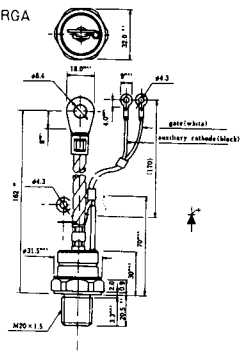
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



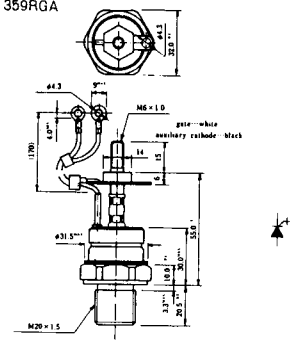
### NI-14

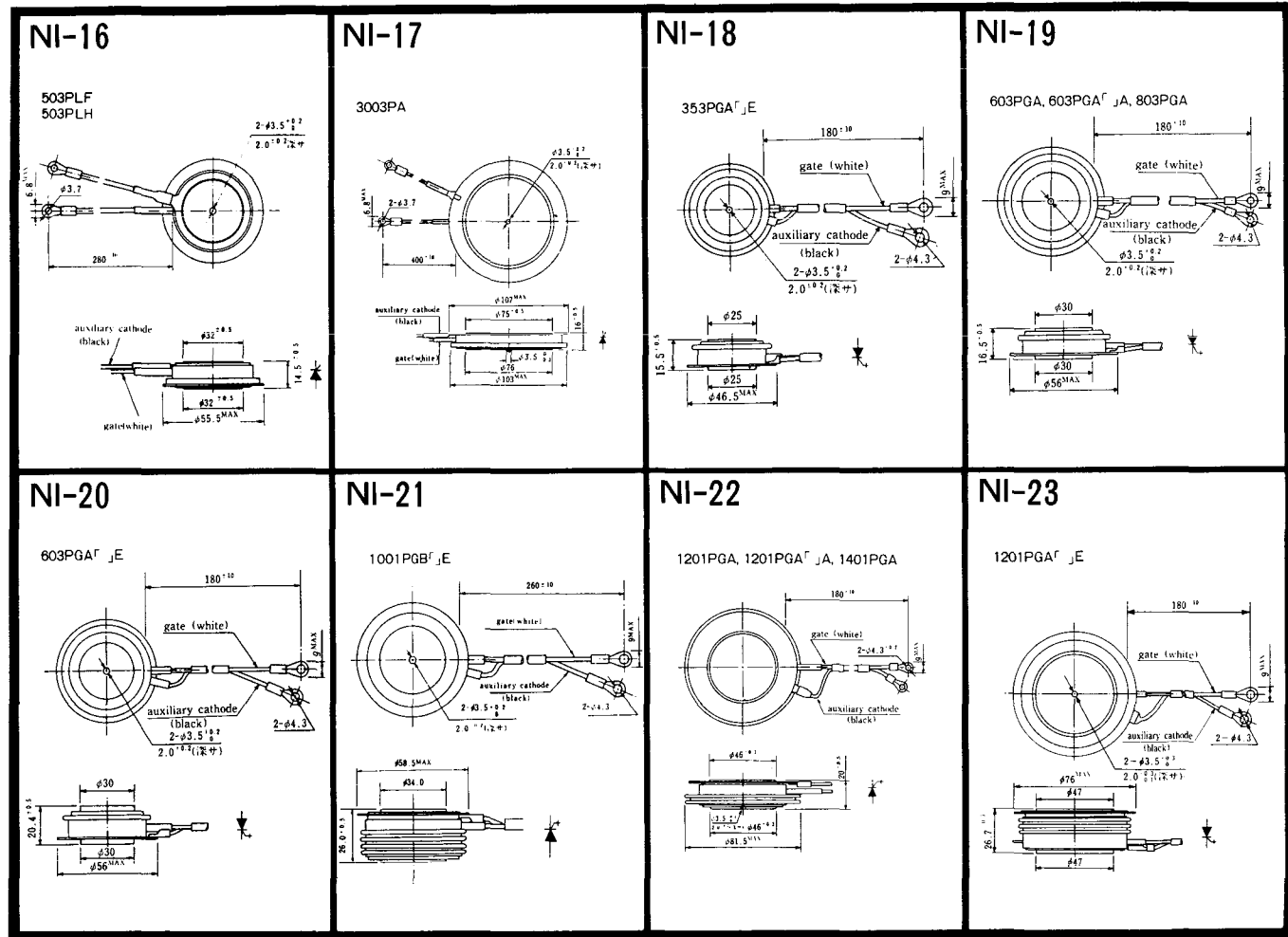
358RGA



### NI-15

359RGA







NI-24

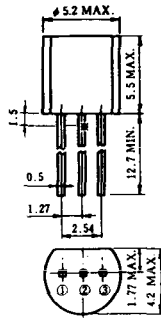
2001PGB<sup>r</sup> JE



NI-25

NI-26

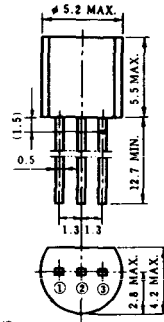
### NT-1



電極接続

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

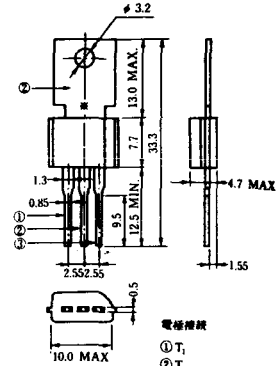
### NT-2



電極接続

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

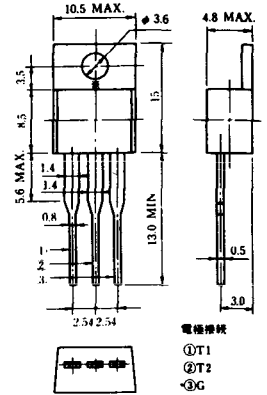
### NT-3



電極接続

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

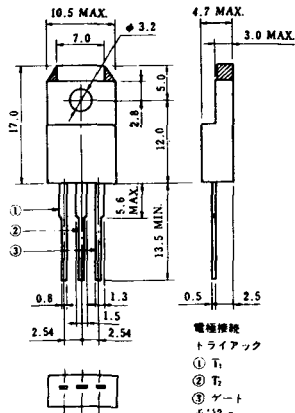
### NT-4



電極接続

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

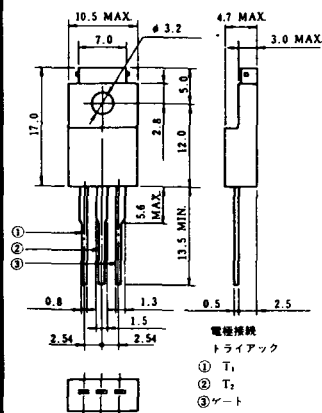
### NT-5



電極接続  
トライアック

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

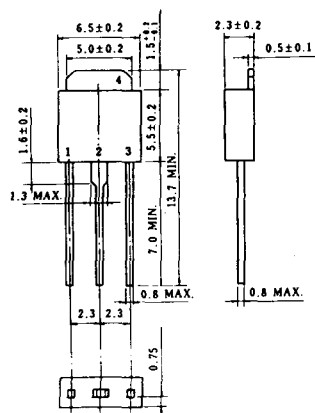
### NT-6



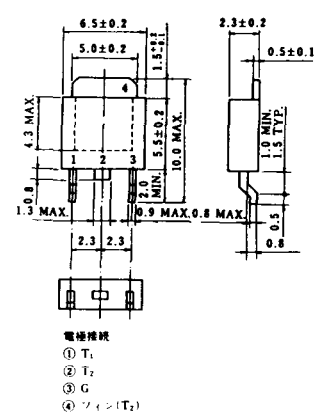
電極接続  
トライアック

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

### NT-7



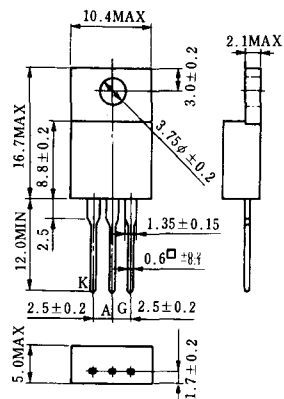
### NT-8



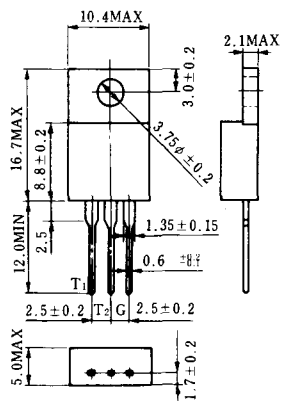
電極接続

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

### S-1



### ST-1



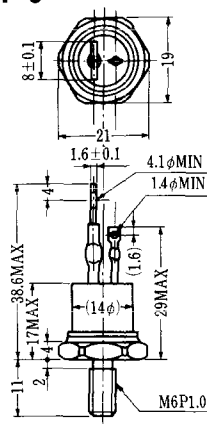
SA-1



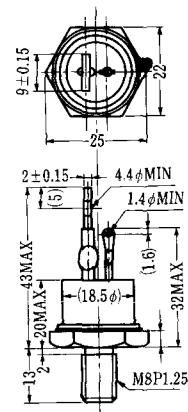
SA-2



SA-3



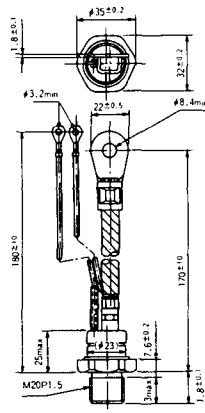
SA-4



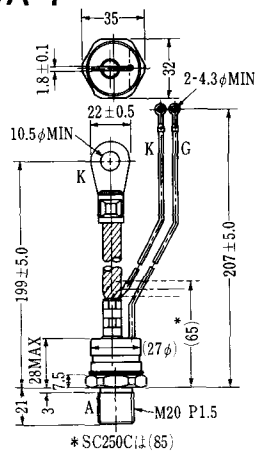
SA-5



SA-6

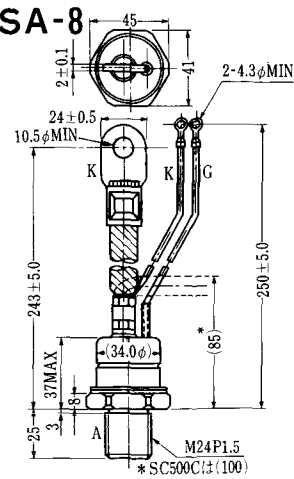


SA-7



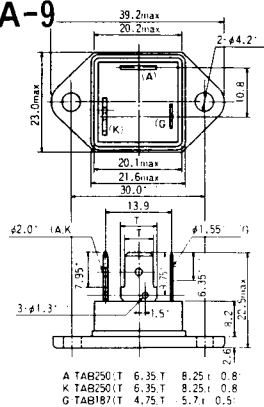
\* SC250C(L)(85)

SA-8



\* SC500C(L)(100)

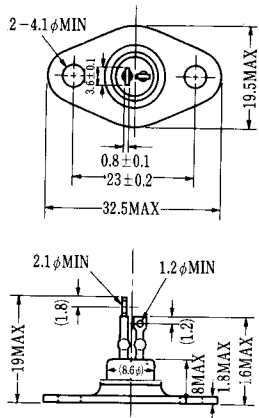
### SA-9



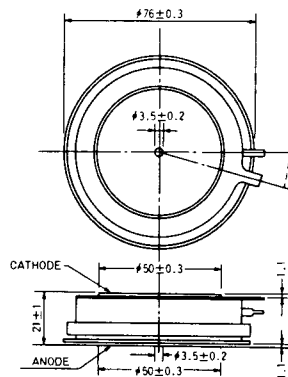
A TAB250(T) 6.35 T 8.25 I 0.8  
 K TAB250(T) 6.35 T 8.25 I 0.8  
 G TAB187(T) 4.75 T 5.7 I 0.5



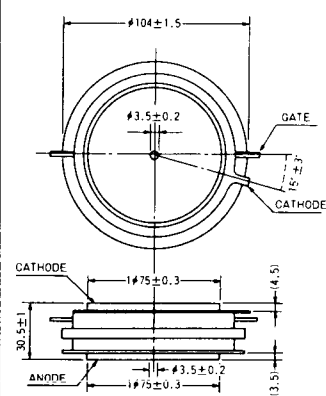
### SA-10



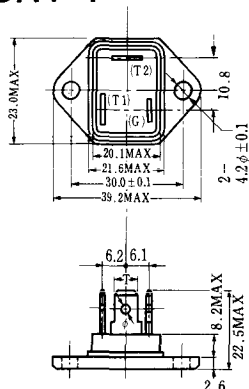
### SA-11



### SA-12

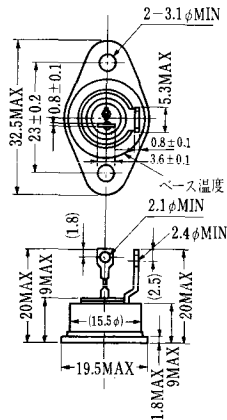


### SAT-1



T1端子: フラスト > 250 (T=6.35, t=0.8, 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)

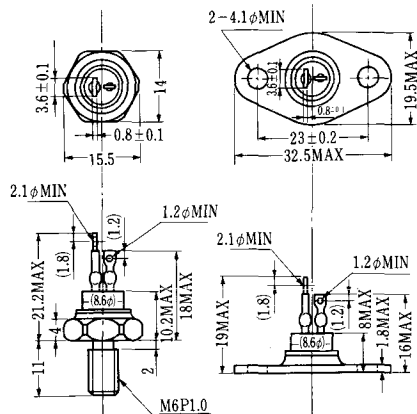
### SAT-2



### SAT-3



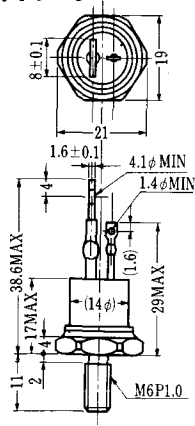
### SAT-4



### SAT-5



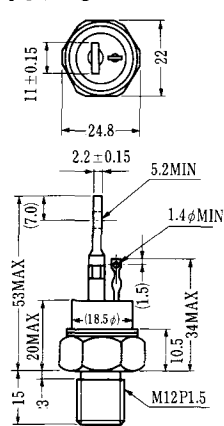
### SAT-6



### SAT-7



### SAT-8



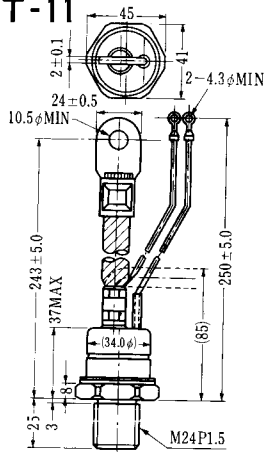
### SAT-9



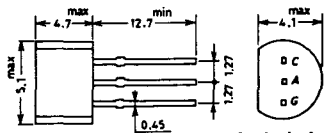
SAT-10



SAT-11

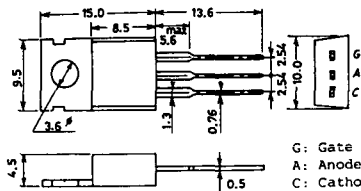


### SY-1 (1096A)



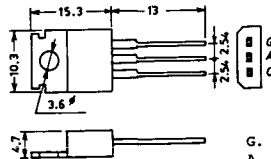
C: Cathode  
A: Anode  
G: Gate

### 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

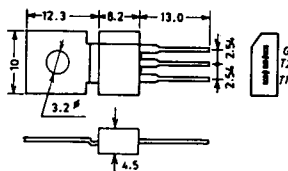


1097A



G: Gate

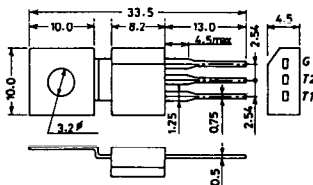
1102



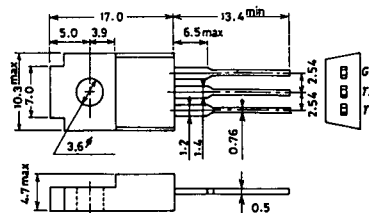
1141



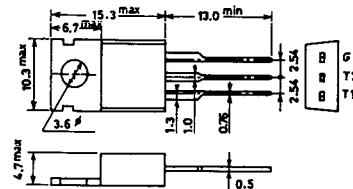
1142



1144



1155

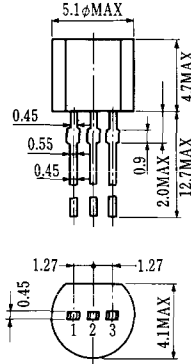


1192A



G: Gate

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



- 1 ゲート
- 2 アノード
- 3 カソード

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



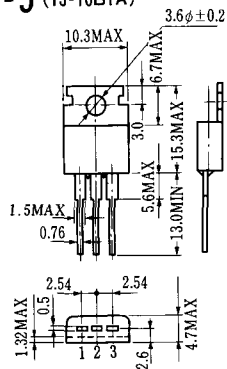
1. カソード
2. ゲート
3. アノード(ケース)

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



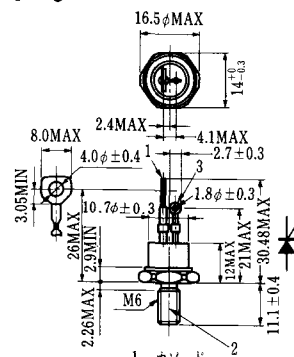
- 1 カソード
- 2 アノード
- 3 ゲート

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



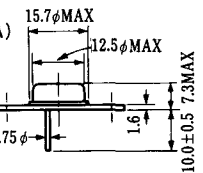
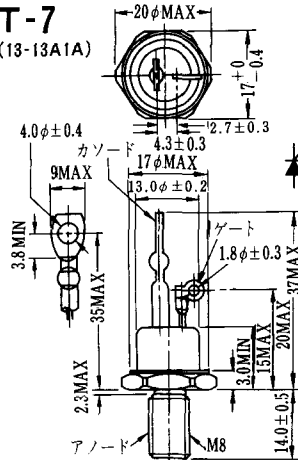
- 1 カソード
- 2 アノード
- 3 ゲート

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



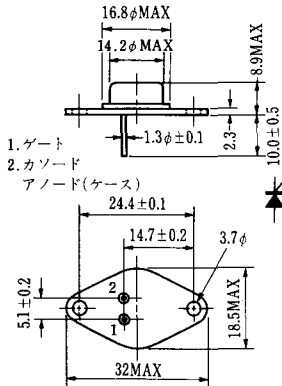
- 1 カソード
- 2 アノード
- 3 ゲート

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



1. ゲート
2. カソード
3. アノード(ケース)

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



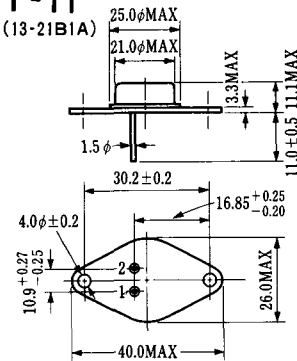
1. ゲート
2. カソード
- アノード(ケース)

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



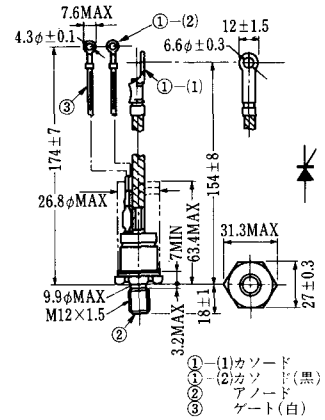
1. カソード
2. アノード
3. ゲート

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



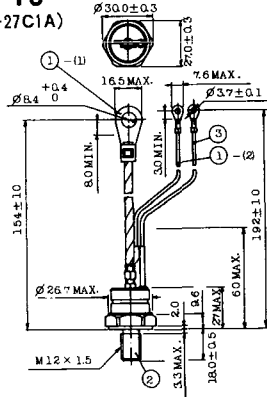
1. ゲート
2. カソード
- アノード(ケース)

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



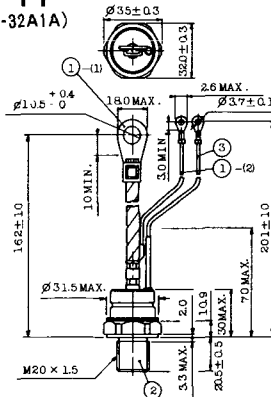
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



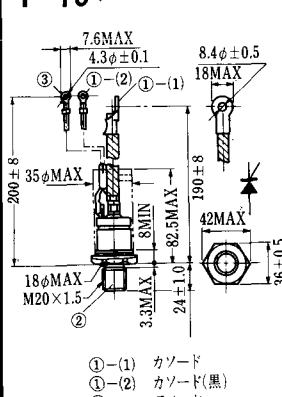
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



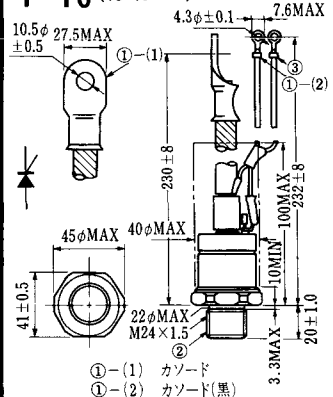
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



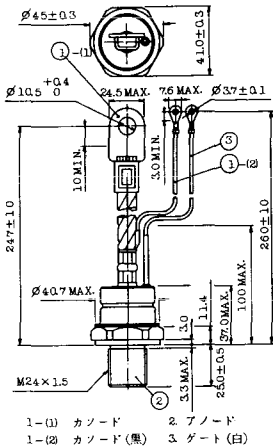
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

### 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)



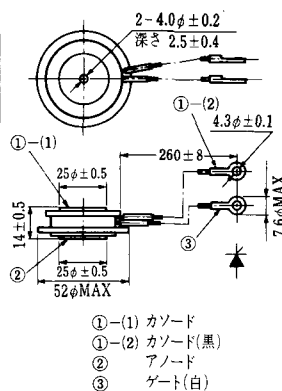
T-18 (13-45D1A)



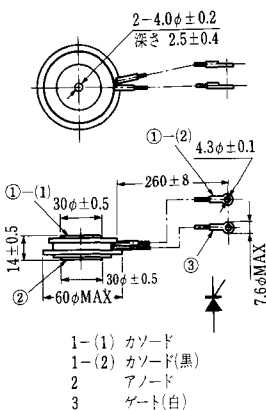
T-19 (13-52B1A)



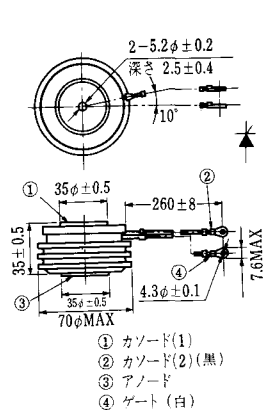
T-20 (13-52C1A)



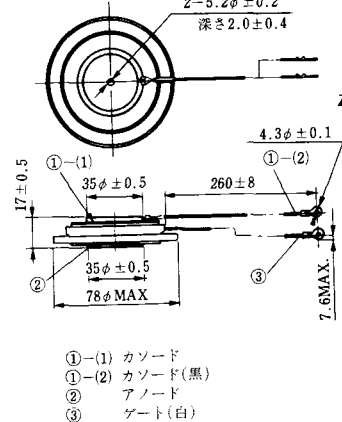
T-21 (13-60A1A)



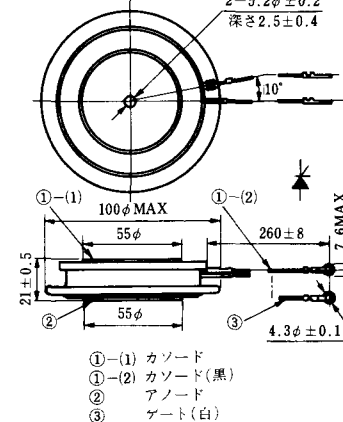
T-22 (13-70C1A)



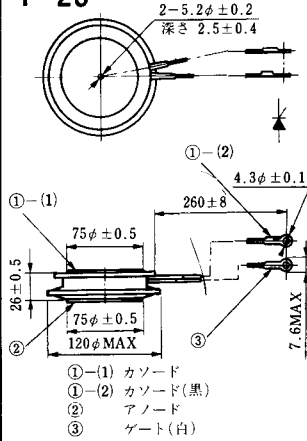
T-23 (13-78A1A)



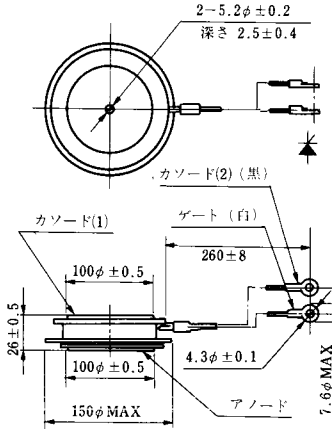
T-24 (13-100C1A)



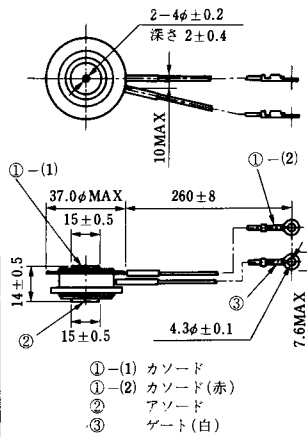
**T-25** (13-120A2A)



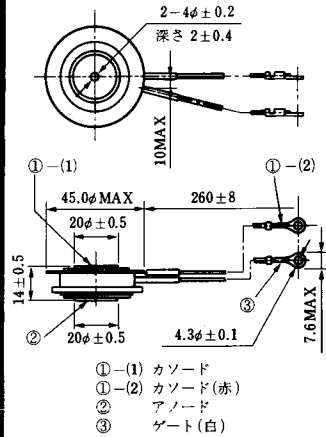
**T-26** (13-150A1A)



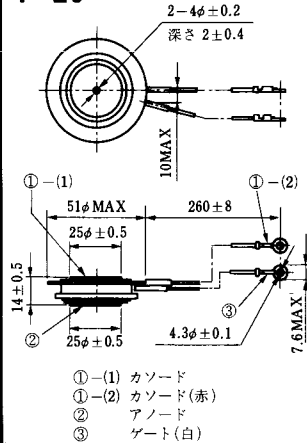
**T-27** (13-37A1A)



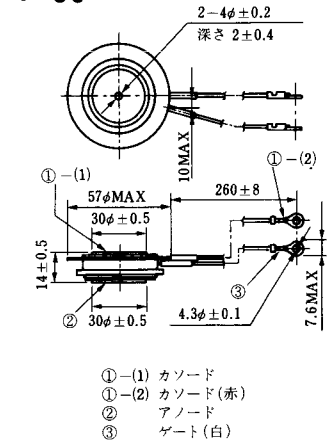
**T-28** (13-45E1A)



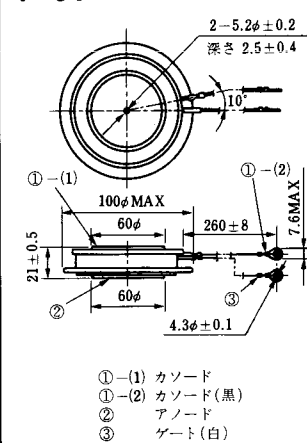
**T-29** (13-51A1A)



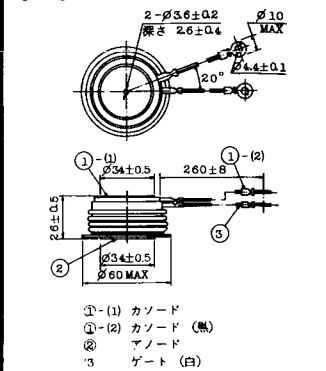
**T-30** (13-57A1A)



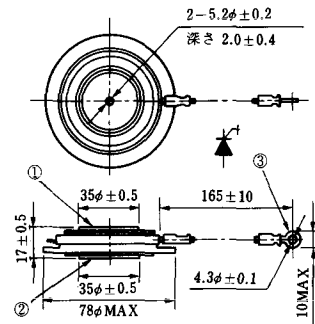
**T-31** (13-100E1A)



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

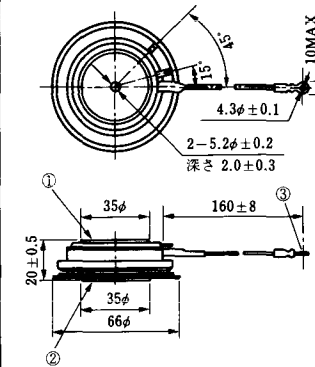


**T-33 (13-78B1A)**



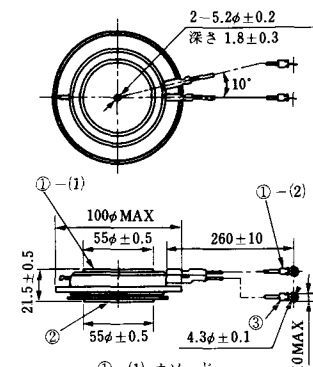
- ① カソード
- ② アノード
- ③ ゲート

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



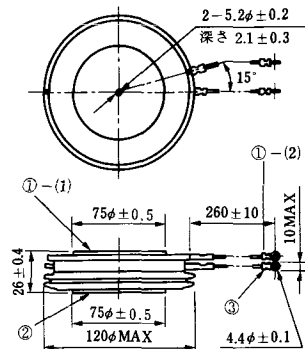
- ① カソード
- ② アノード
- ③ ゲート

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



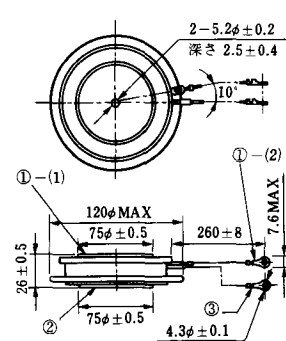
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



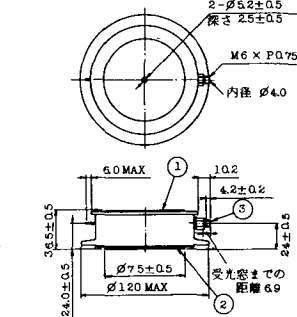
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



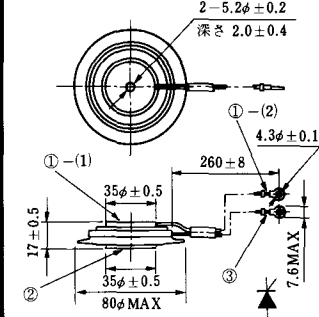
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



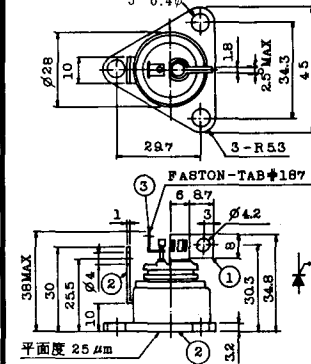
- ① カソード
- ② アノード
- ③ ゲート

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



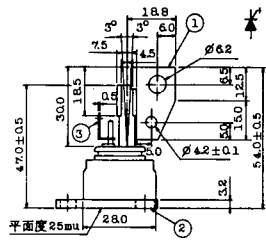
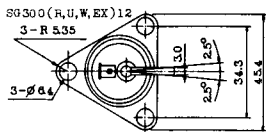
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



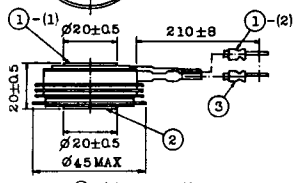
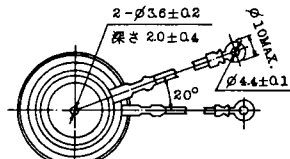
- 1. カソード
- 2. アノード
- 3. ゲート

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



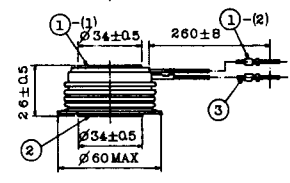
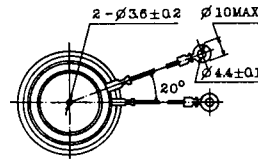
- 1 カソード
- 2 アノード
- 3 ゲート

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



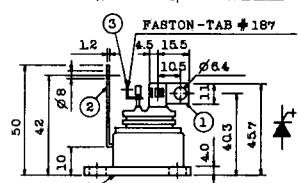
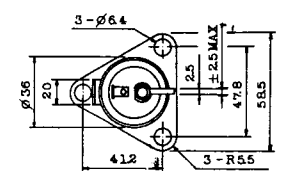
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



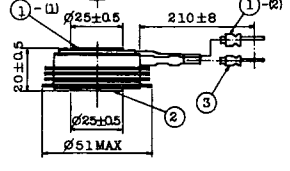
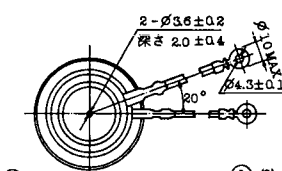
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



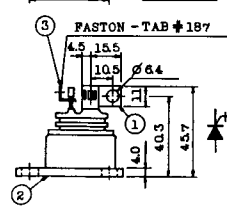
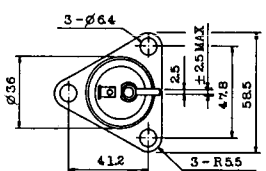
- 1 カソード
- 2 アノード
- 3 ゲート

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



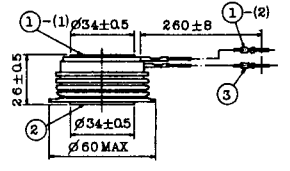
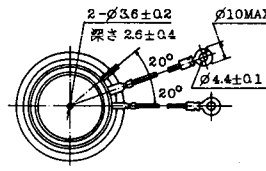
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



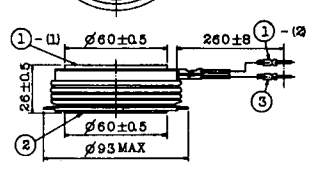
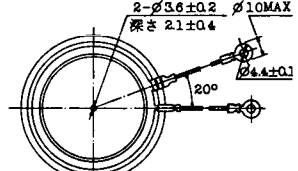
- 1 カソード
- 2 アノード
- 3 ゲート

### 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)



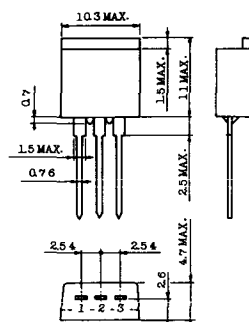
- 1 カソード
- 2 アノード
- 3 ゲート

**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)



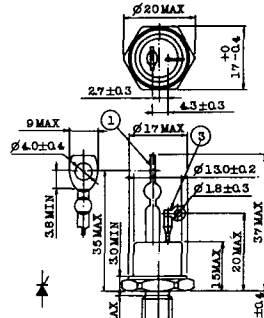
- 1 カソード
- 2 アノード
- 3 ゲート

**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

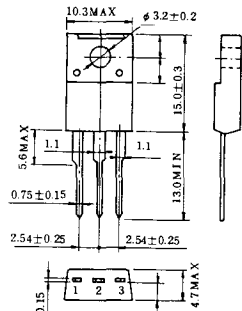


T-57 (12-16C1A)



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

T-60



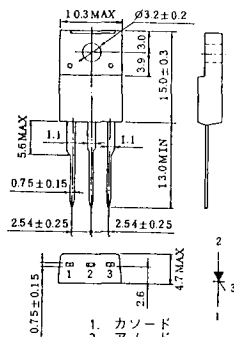
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



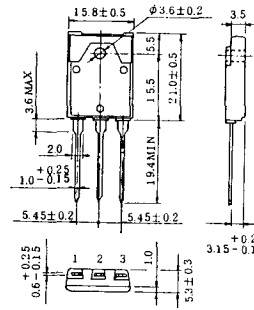
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



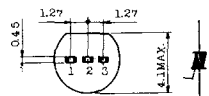
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



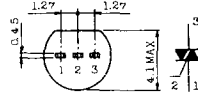
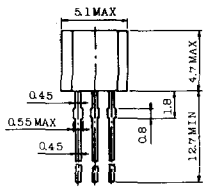
1. カソード
2. アノード
3. ゲート

TT-1



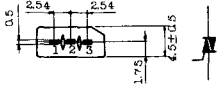
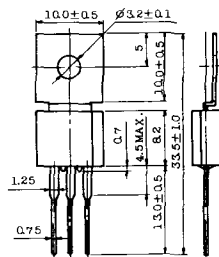
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



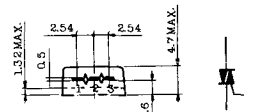
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



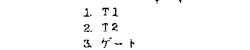
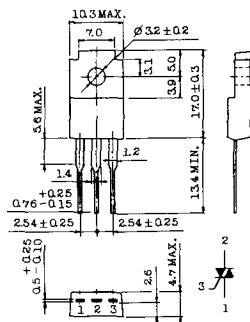
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



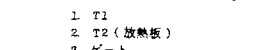
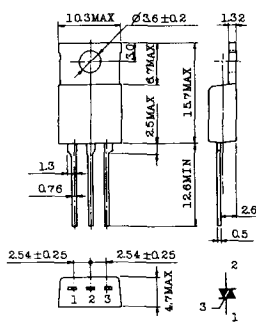
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



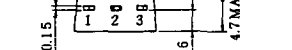
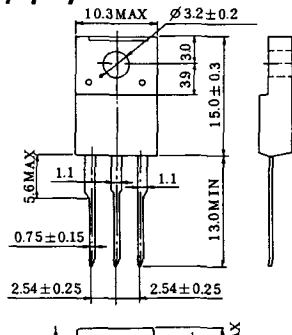
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



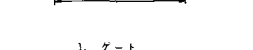
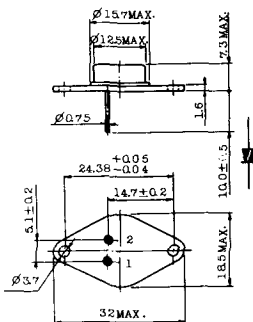
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



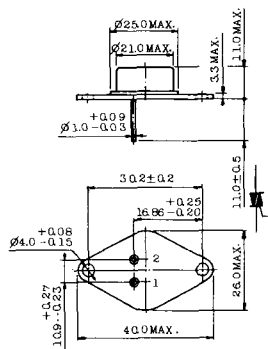
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-8



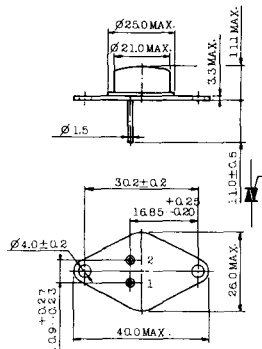
- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



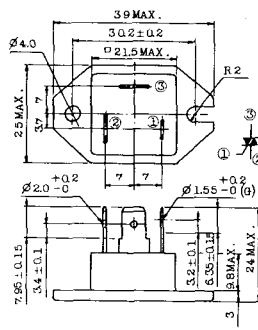
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-10



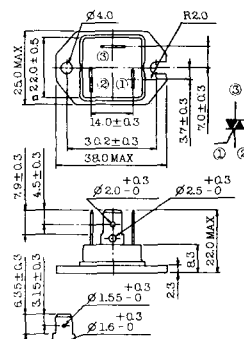
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

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)

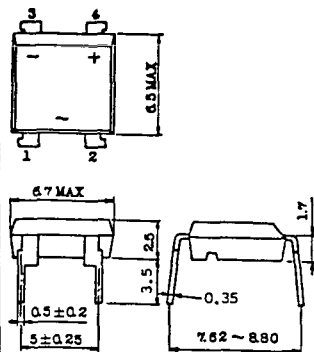
TT-12



ゲート端子詳細

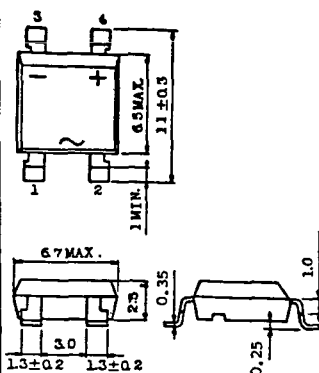
- ① ゲート (フーストン端子 #187)
- ② T<sub>1</sub> ( " #250)
- ③ T<sub>2</sub> ( " #250)

TT-13



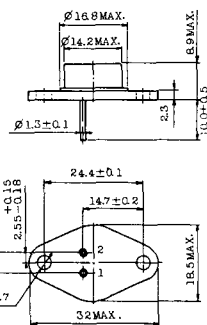
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



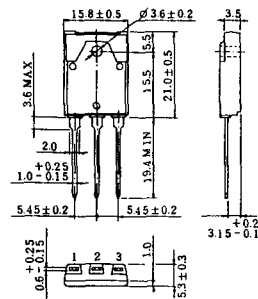
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

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

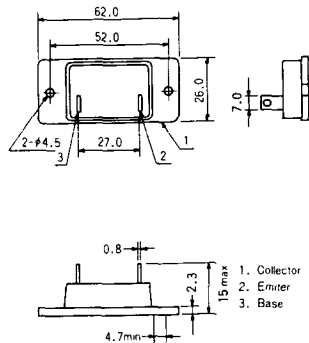


TS-8

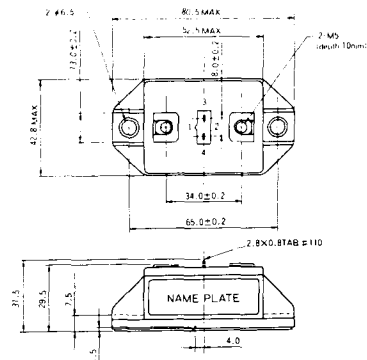


1. ベース
2. エミッタ  
コレクタ  
(ケース)

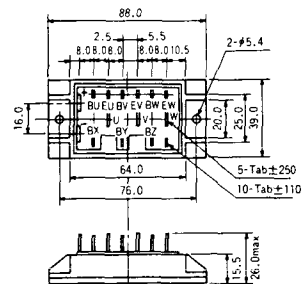
### S-62A1A



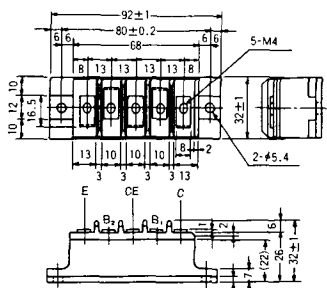
### S-80A1A



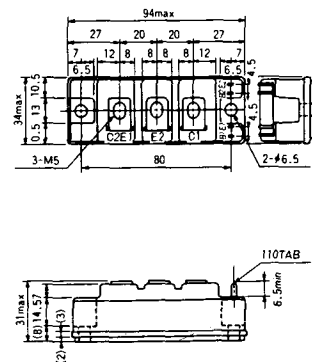
### S-88D1A



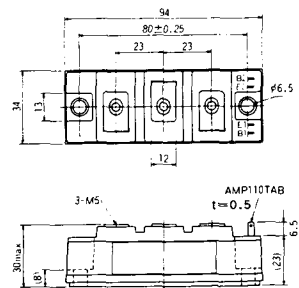
### S-92B1A



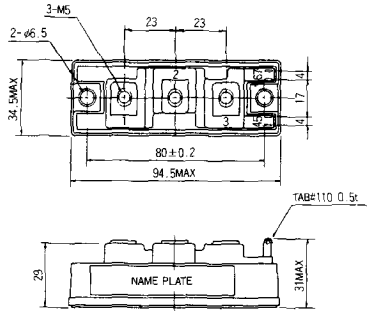
### S-94B1A



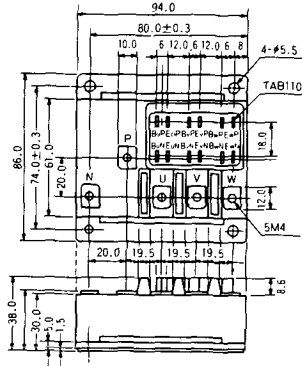
### S-94B1B



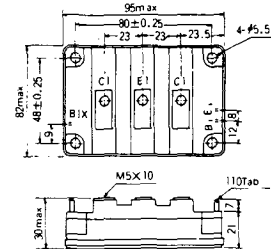
S-94B2A



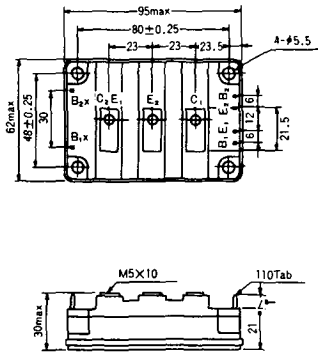
S-94D1A



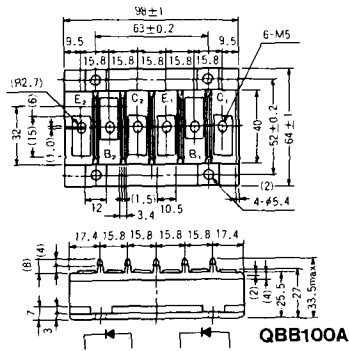
S-95A1A



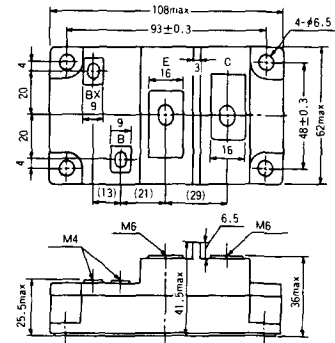
S-95B1A



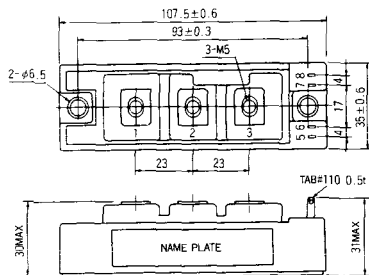
S-98B1B



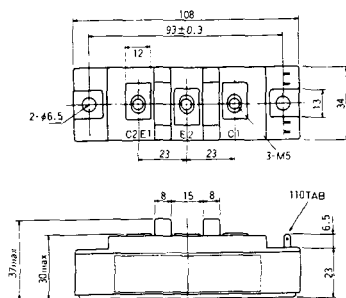
S-108A2A



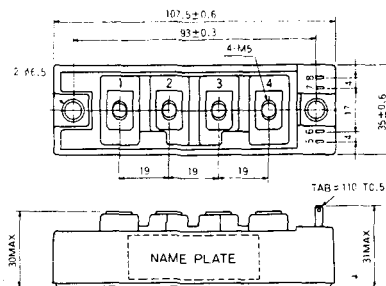
S-108B1A



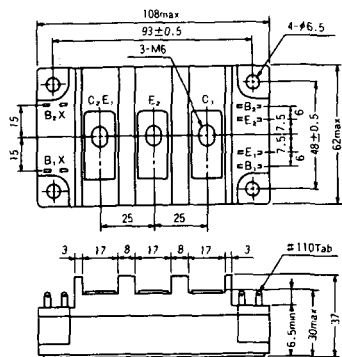
S-108B1B



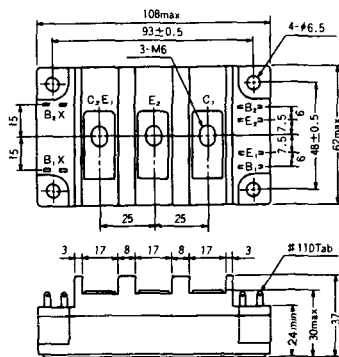
S-108B1C



S-108B2A



S-108B2B





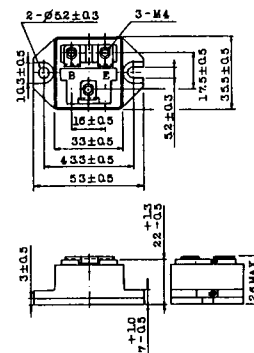
### 2-22B1A



### 2-27A4A



### 2-33C1A



### 2-33D1A



### 2-33F1A



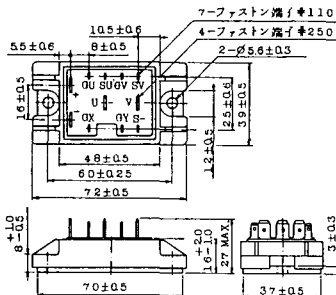
### 2-37A1A



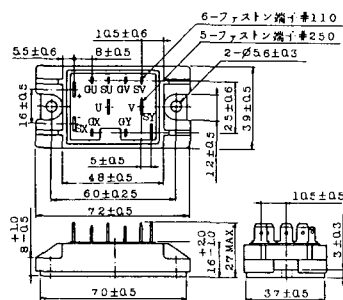
2-48A3A



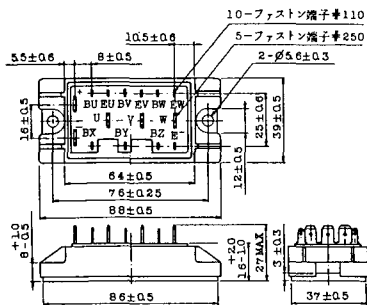
2-48A3B



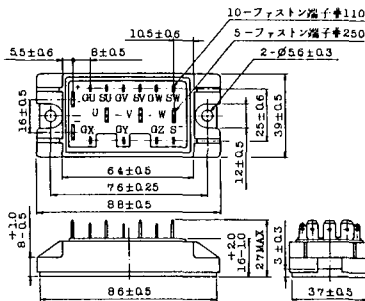
2-48A4A



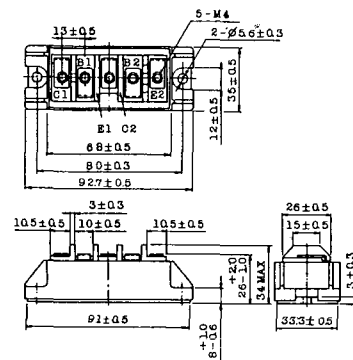
2-64A2A



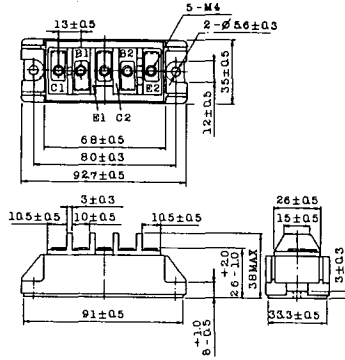
2-64A2B



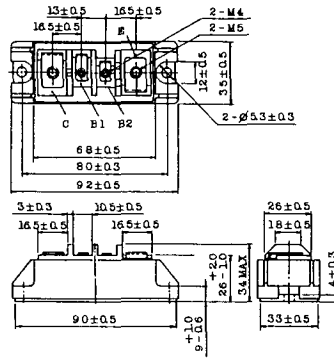
2-68A2A



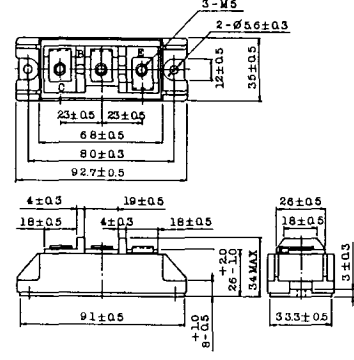
2-68B2A



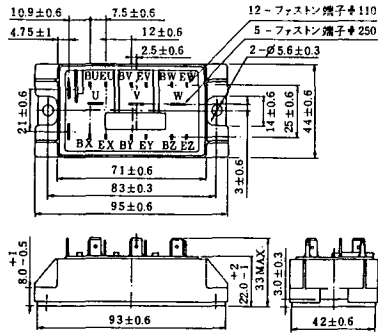
2-68C1A



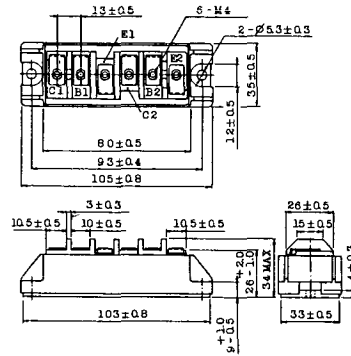
2-68D2A



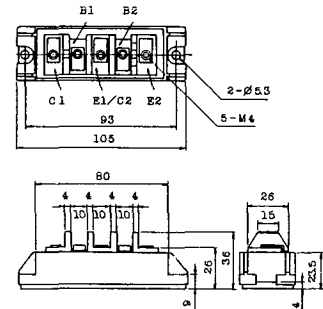
2-72A3A



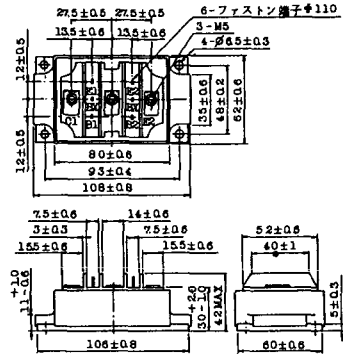
2-80A1A



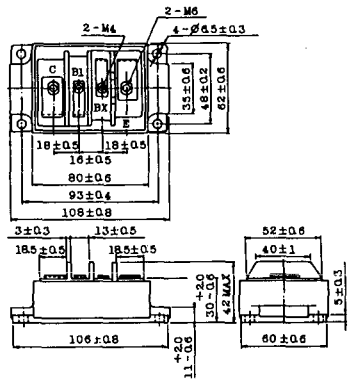
2-80B1A



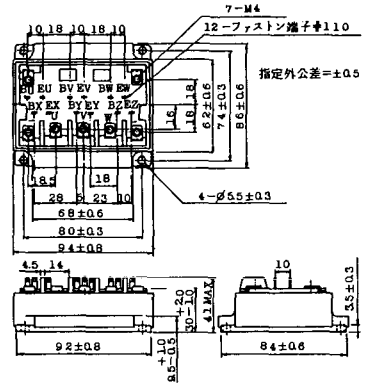
### 2-80C1A



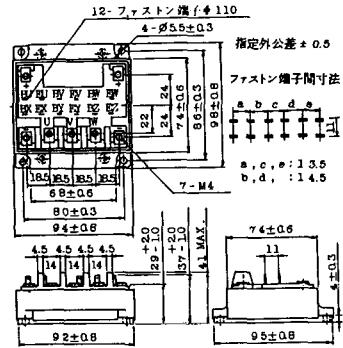
### 2-80D2A



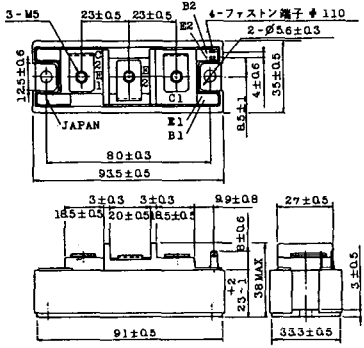
### 2-94A2A



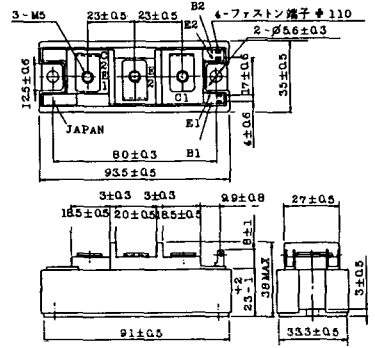
### 2-94B1A



### 2-94C2A



### 2-94C3A



### 2-94D1A



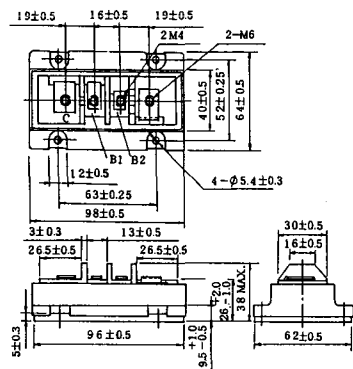
### 2-96A3A



### 2-96A4A



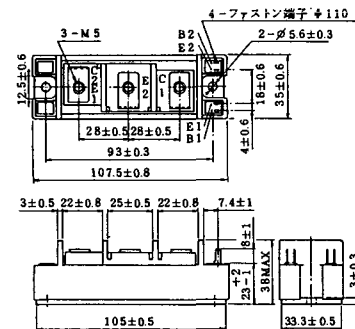
### 2-98B1A



### 2-98C2A



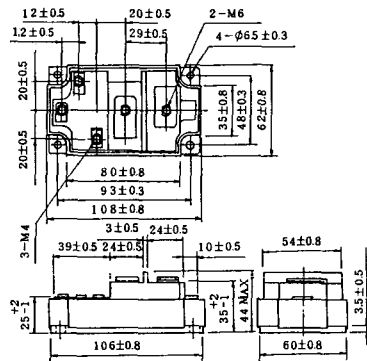
### 2-108A2A



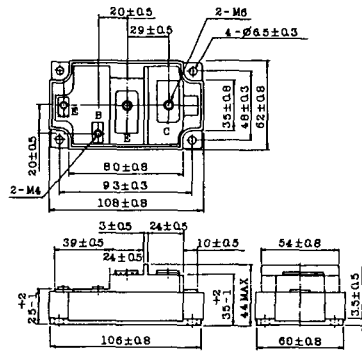
### 2-108B1A



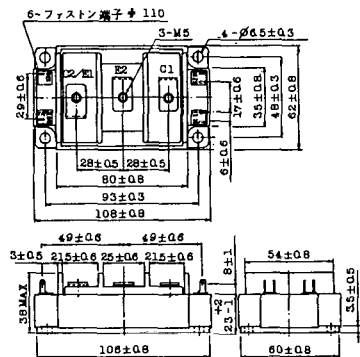
### 2-109A3A



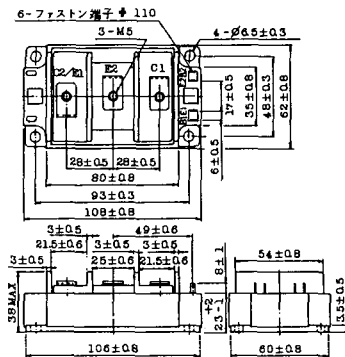
### 2-109A4A



### 2-109B3A

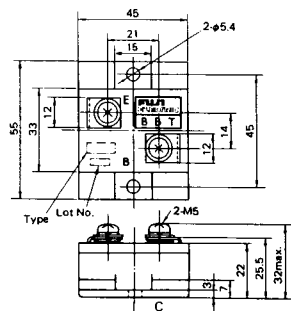


### 2-109B4A



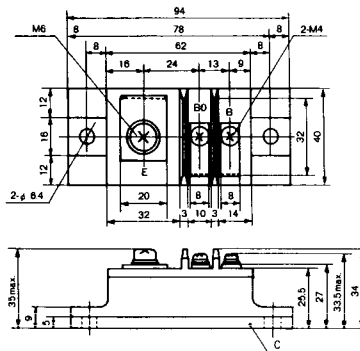
### BBT-II

BBTII  
1D200A-020



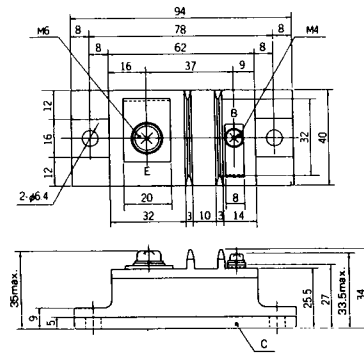
### BBT-III

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



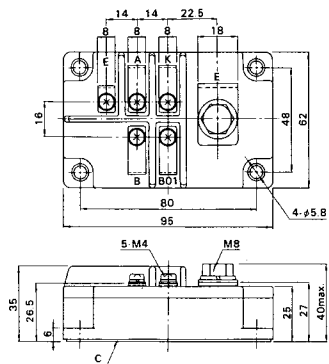
### BBT-III

BBTIII  
ETN01-055  
ET1257

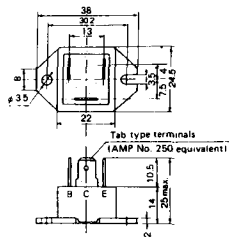


### BBT-IV

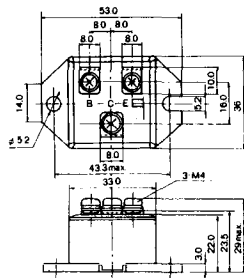
BBTIV  
1D500A-030



M-101



M-102



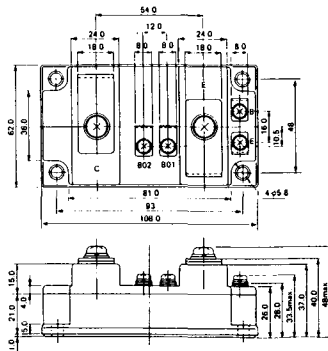
M-103



M-104



M-105



M-106

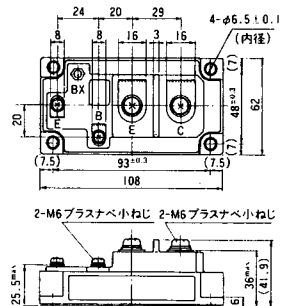




### M-107



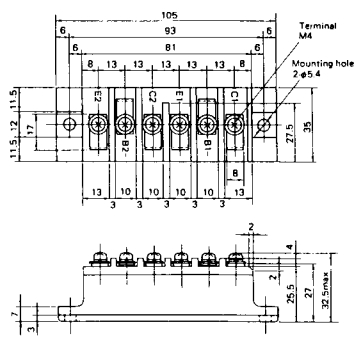
### M-116



M-201



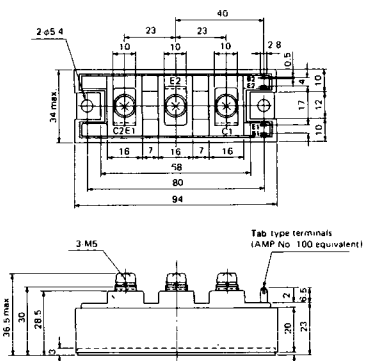
M-202



M-203



M-204



M-205



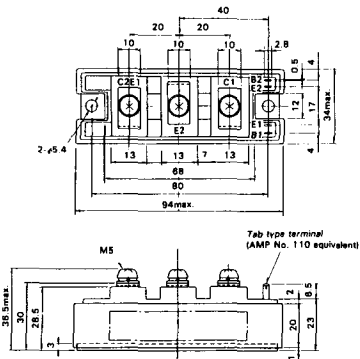
M-206



M-207



M-208



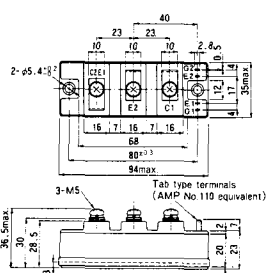
M-209



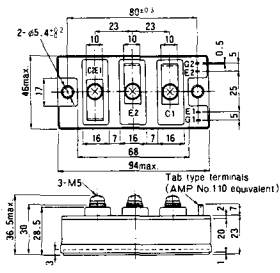
M-210



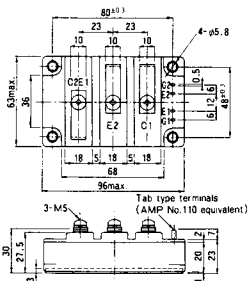
M-211



M-212

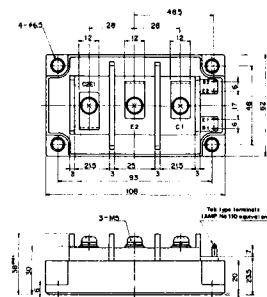


M-213

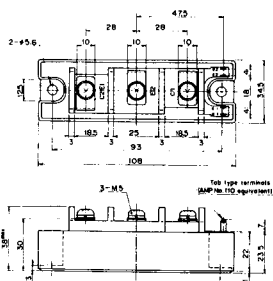


M-214

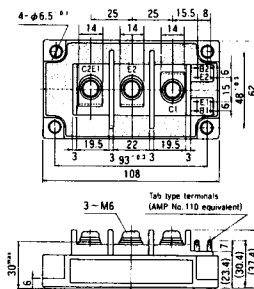
M-215



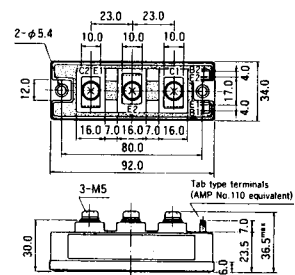
M-216



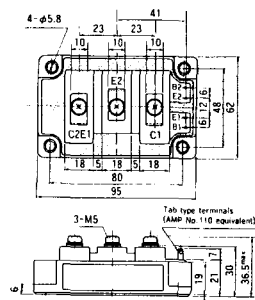
M-217



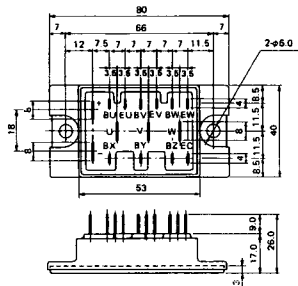
M-218



M-219



M-601



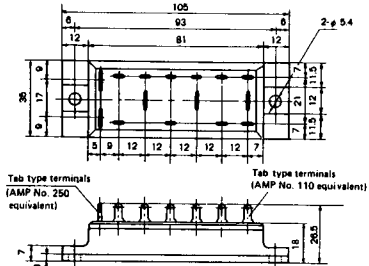
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



M-602

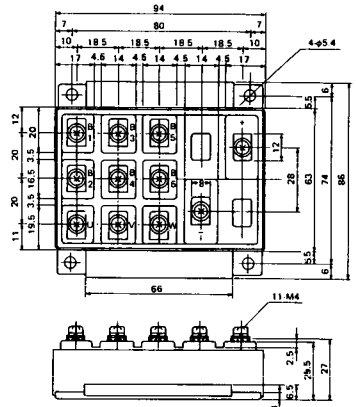


Tab type terminals  
(AMP No. 250 equivalent)

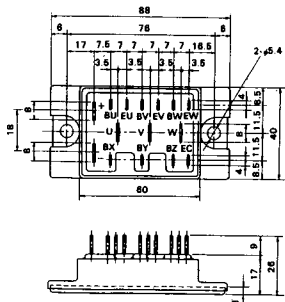
Tab type terminals  
(AMP No. 110 equivalent)



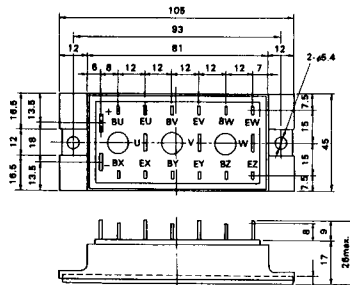
M-603



M-604



M-605

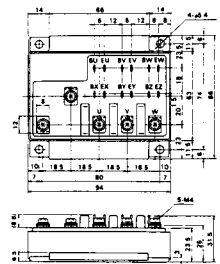


Tab type terminals  
(AMP No. 110 equivalent)

Tab type terminals  
(AMP No. 250 equivalent)



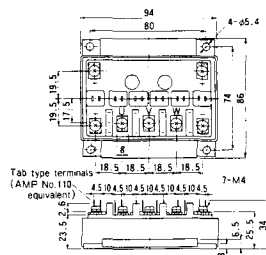
M-606



M-607



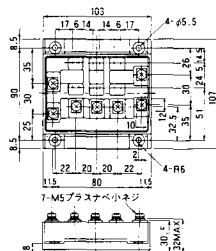
M-608



M-609



M-610



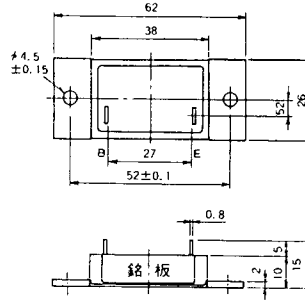
M-616



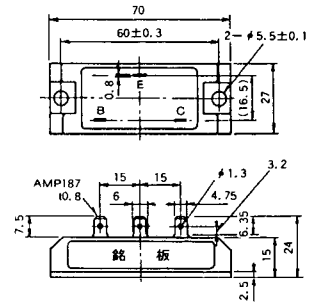
M-1A1A



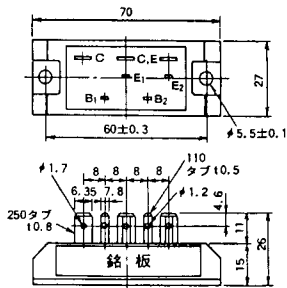
M-2A1A



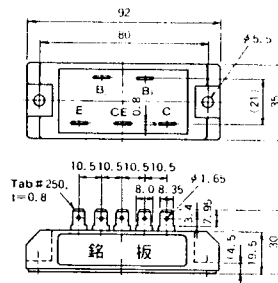
M-2B1A



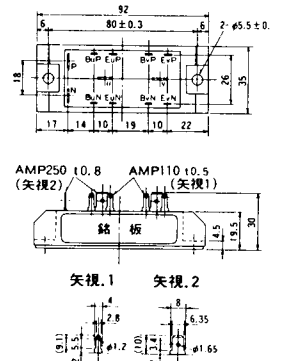
M-2B2A



M-2C2A

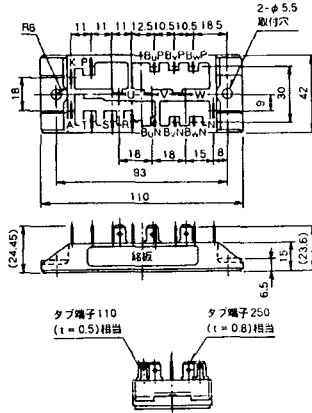


M-2D4A

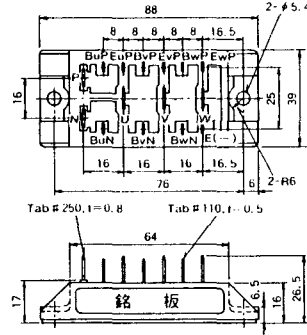




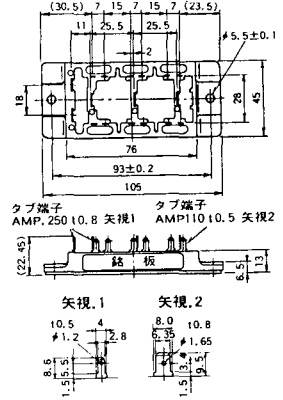
### M-2E6A



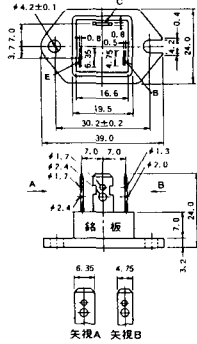
### M-2F6A



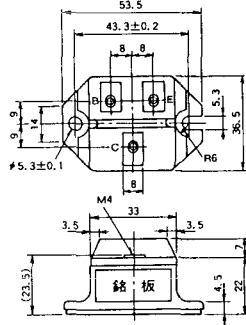
### M-2G6A



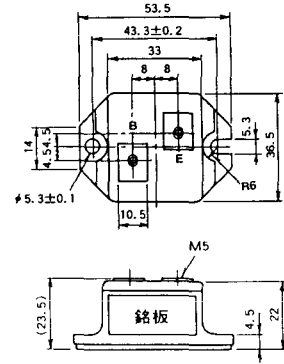
### M-3A1A



### M-3B1A



### M-3B1B



M-3C1A



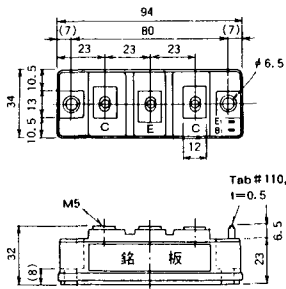
M-3D6A



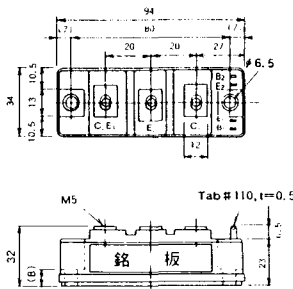
M-3E6A



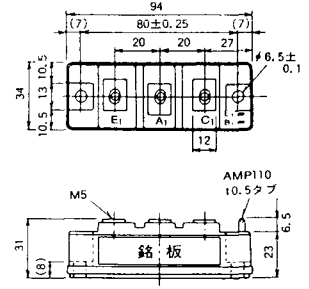
M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



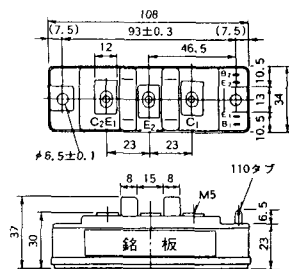
M-5A1A



M-5A1B



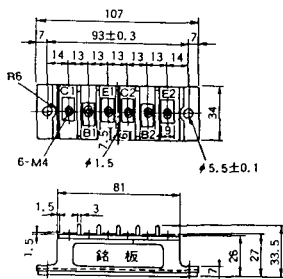
M-5A2A



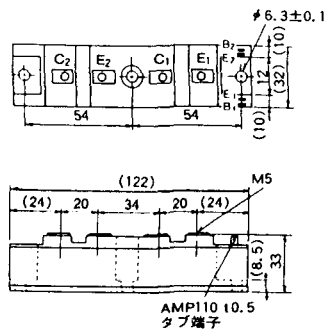
M-5B2A



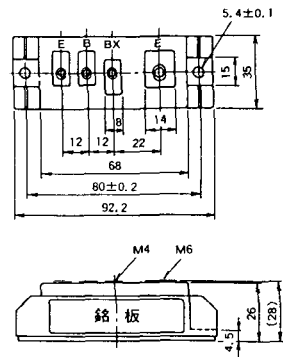
M-5C2A



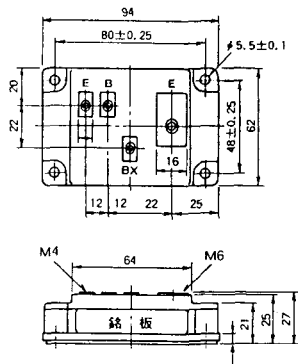
M-5D2A



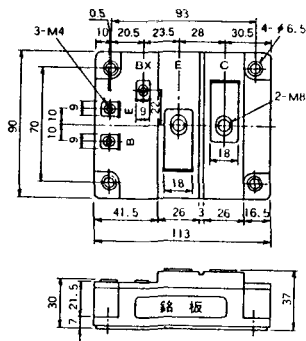
M-6A1A



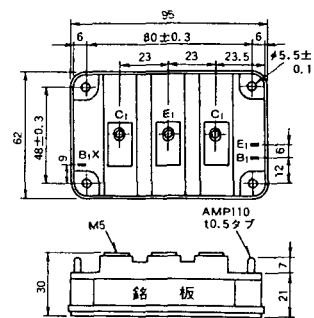
M-7A1A



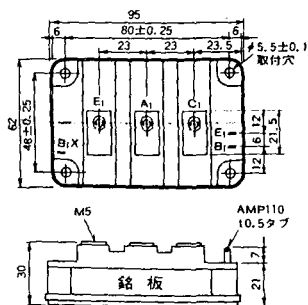
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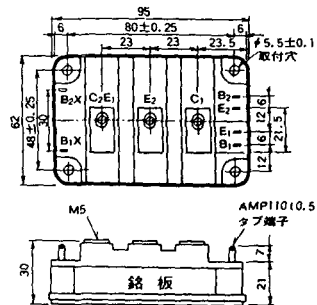
M-8A1A



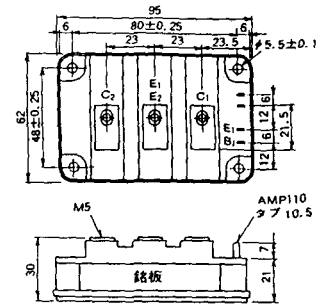
M-8A1B



M-8A2A



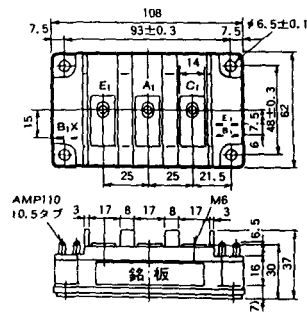
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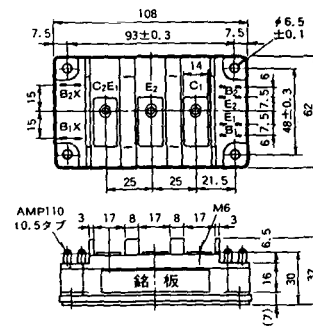
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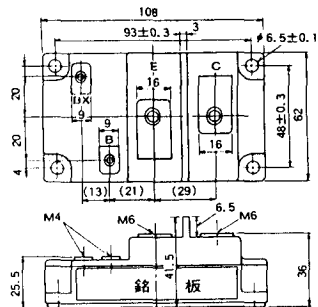
M-9A1A



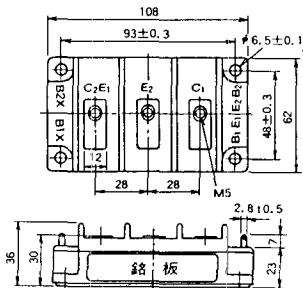
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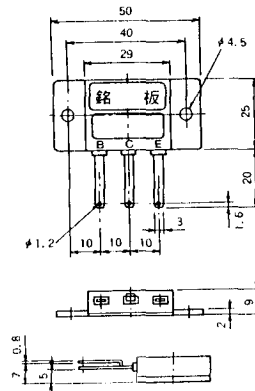
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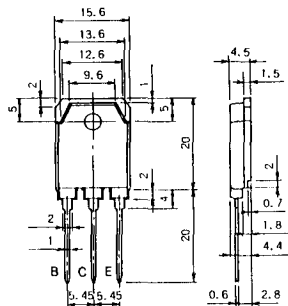
### M-9C2A



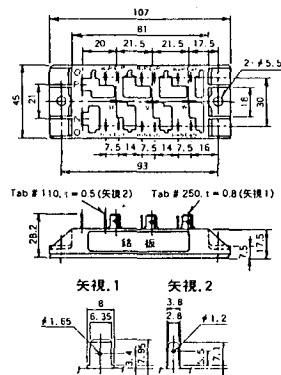
### M-1A1B



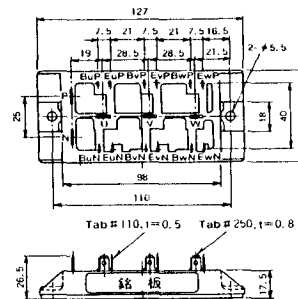
### M-1A1C



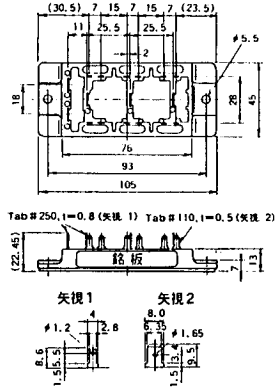
### M-2E6B



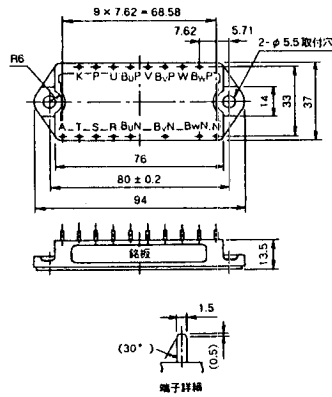
### M-2E6C



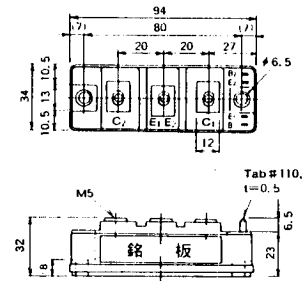
### M-2G6B



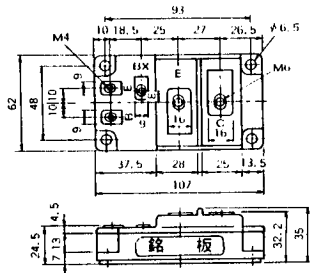
### M-3D6B



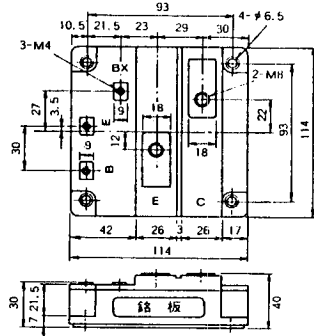
### M-4A2C



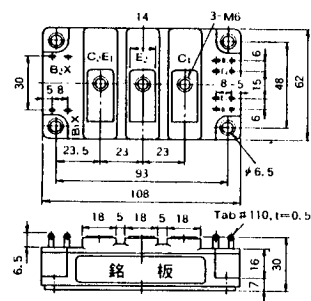
### M-7A1B



### M-7C1A



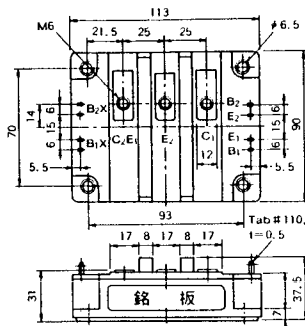
### M-8A2C



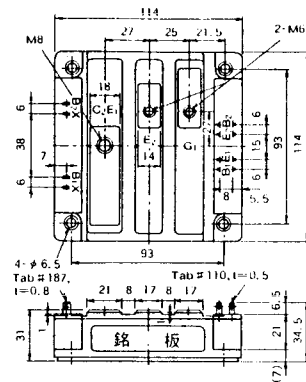
M-10A2A



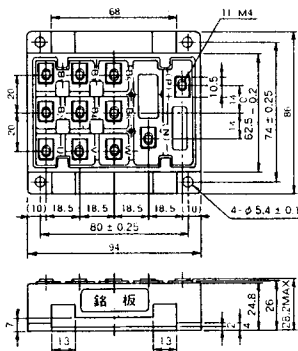
M-10A2B



M-11A2A



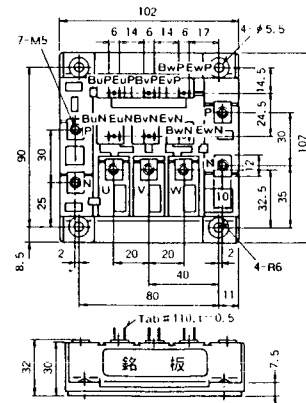
M-12A6A



M-12B6A

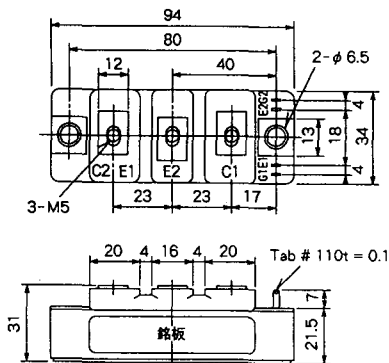


M-12B6B

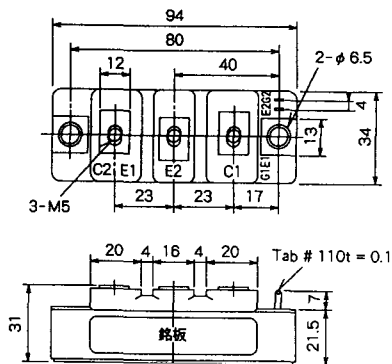




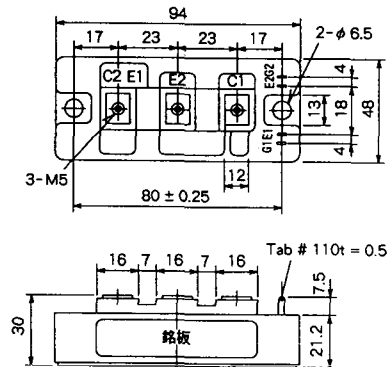
M-4A2D



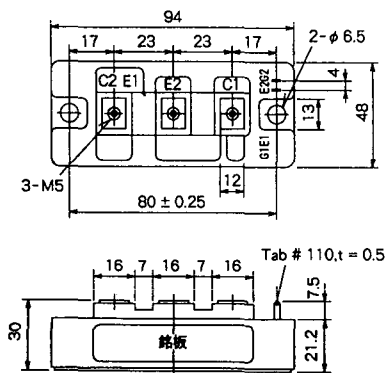
M-4A2E



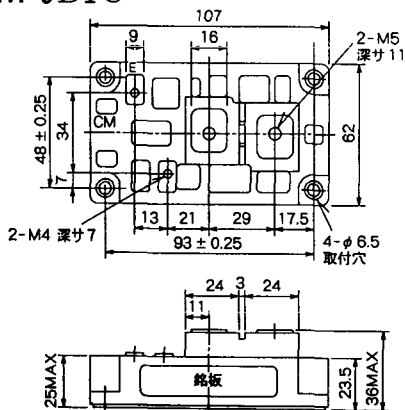
M-4C2A



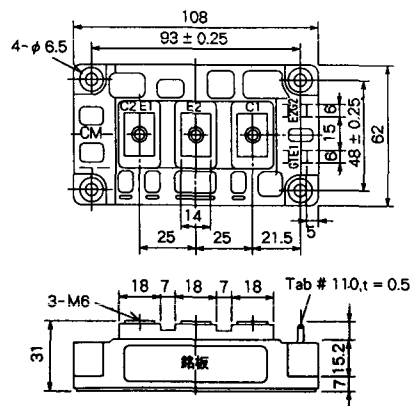
M-4C2B



M-9B1C



M-9D2A



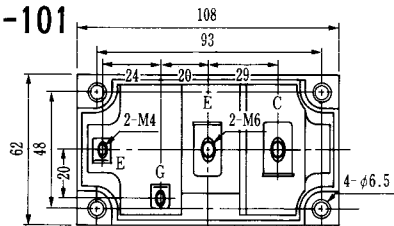
M-9D2B



M-10A2C



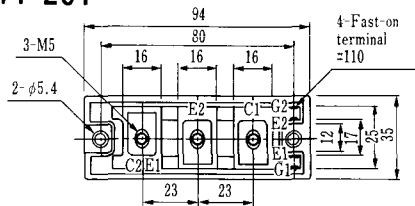
H-101



Weight :480g

TERMINALS

### H-201



Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K



