

SG400<sup>†</sup>R, U, W, EX<sup>†</sup>22  
○チョップパ、インバータ用

■外形図番号 T-42 (13-45F1A)

■最大定格

記号	SG400R22	SG400U22	SG400W22	SG400EX22	単位
$V_{RRM}$	15				V
$V_{DRM}$	1300	1600	1800	2500	V
$I_{TQM}$	400 ( $V_D = \frac{1}{2} V_{DRM}$ , $V_{DM} = \frac{1}{2} V_{DRM}$ , $C_s = 1 \mu F$ , $R_s = 20 \Omega$ , $T_j = 125^\circ C$ )				
$I_{FRMS}$	150 ( $T_j = 70^\circ C$ )				
$I_{FSM}$	2600/2860 (50Hz/60Hz, 正弦半波1サイクル)				
$I^2 \cdot t$	A <sup>2</sup> S				
$di/dt$	200 ( $I_{GP} = 7 A$ , $t_r = 1 \mu s$ , $V_D = \frac{1}{2} V_{DRM}$ , $I_{TM} = 400 A$ , $f = 50 Hz$ , $T_j = 125^\circ C$ )				
$I_{GFM}$	20 (パルス幅: max. 20 $\mu s$ , duty: max. 20%)				
$P_{GFAV}$	4 W				
$I_{GRMS}$	20 A				
$P_{GRM}$	2000 (パルス幅: max. 20 $\mu s$ , duty: max. 2%)				
$V_{GRM}$	15 V				
$T_j$	125 $^\circ C$				
$T_{stc}$	-40 ~ 125 $^\circ C$				

■電気的特性

記号	測定条件	Min	Typ	Max	単位
$I_{RRM}$	$T_j = 125^\circ C$ , $V_D = V_{RRM}$			10	mA
$I_{DRM}$	$T_j = 125^\circ C$ , $V_D = V_{DRM}$ , $R_{GK} = 20 \Omega$			10	
$I_{GRM}$	$T_j = 125^\circ C$ , $V_D = V_{GRM}$			10	
$V_{TM}$	$T_c = 25^\circ C$ , $I_{TM} = 400 A$			2.4	V
$V_{GT}$	$T_c = 25^\circ C$ , $V_D = 12 V$	0.75		1.0	
$I_{GT}$	$R_L = 0.5 \Omega$		200	500	mA
$V_{GD}$		0.3			
$I_{GD}$	$T_c = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$	5			mA
$t_d$	$T_c = 25^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$			2.0	
$t_{st}$	$I_{TM} = 400 A$ $di/dt = 200 A/\mu s$ $I_{GP} = 7 A$ , $t_r = 1 \mu s$	SG400R22		7.6	$\mu s$
		SG400U22		7.0	
		SG400W22		6.8	
	SG400EX22		6.0		
$dv/dt$	$T_j = 125^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$ $V_{GK} = -2 V$	600			V/ $\mu s$
$I_H$	$T_c = 25^\circ C$ , $R_L = 0.5 \Omega$		10		A
$t_r$	$T_c = 120^\circ C$ , $I_{TM} = 400 A$			13	$\mu s$
$t_{ev}$	$V_D = \frac{1}{2} V_{DRM}$			15	
$t_{tot}$	$V_{DM} = \frac{1}{2} V_{DRM}$ $C_s = 1 \mu F$ $R_s = 20 \Omega$ $dig/dt = -12 A/\mu s$	SG400R22		62	
		SG400U22		58	
		SG400W22		56	
		SG400EX22		50	
$I_{GR}$			95	125	A
$R_{th}$	接合~フィン間, DC			0.12	$^\circ C/W$

SG500<sup>†</sup>FXF, GXH<sup>†</sup>21 (VRRM)  
○チョップパ、インバータ用

■外形図番号 T-43 (13-60E3A)

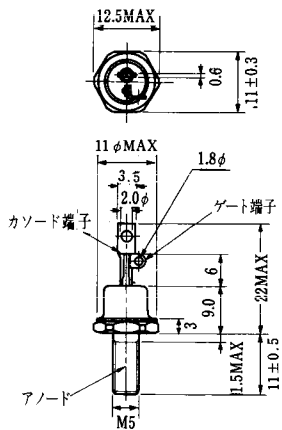
■最大定格

記号	SG500FXF21 (VRRM)	SG500GXH21 (VRRM)	単位
$V_{RRM}$	3000	4000	V
$V_{DRM}$	3300	4500	
$I_{TQM}$	500 ( $V_D = \frac{1}{2} V_{DRM}$ , $V_{DM} = \frac{1}{2} V_{DRM}$ , $C_s = 2 \mu F$ , $R_s = 20 \Omega$ , $T_j = 115^\circ C$ )		
$I_{FRMS}$	200 ( $T_j = 70^\circ C$ )		
$I_{FSM}$	2500/3000 (50Hz/60Hz, 正弦半波1サイクル)		
$I^2 \cdot t$	A <sup>2</sup> S		
$di/dt$	200 ( $I_{GP} = 9 A$ , $t_r = 1 \mu s$ , $V_D = \frac{1}{2} V_{DRM}$ , $I_{TM} = 500 A$ , $f = 50 Hz$ , $T_j = 115^\circ C$ )		
$I_{GFM}$	30 (パルス幅: max. 20 $\mu s$ , duty: max. 20%)		
$P_{GFAV}$	6 W		
$I_{GRMS}$	35 A		
$P_{GRM}$	4000 (パルス幅: max. 20 $\mu s$ , duty: max. 2%)		
$V_{GRM}$	15 V		
$T_j$	115 $^\circ C$		
$T_{stc}$	-40 ~ 115 $^\circ C$		

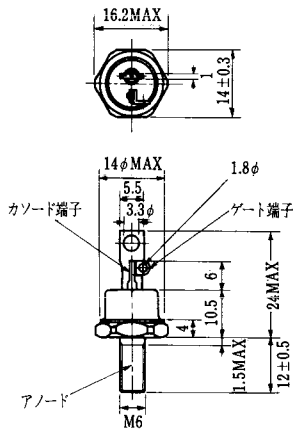
■電気的特性

記号	測定条件	Min	Typ	Max	単位
$I_{RRM}$	$T_j = 115^\circ C$ , $V_D = V_{RRM}$			40	mA
$I_{DRM}$	$T_j = 115^\circ C$ , $V_D = V_{DRM}$ , $R_{GK} = 20 \Omega$			40	
$V_{TM}$	$T_c = 25^\circ C$ , $I_{TM} = 500 A$			4.5	V
$V_{GT}$	$T_c = 25^\circ C$ , $V_D = 24 V$			1	
$I_{GT}$	$R_L = 1 \Omega$			500	mA
$V_{GD}$		0.3			
$I_{GD}$	$T_c = 115^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$	5			mA
$t_d$	$T_c = 25^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$ , $I_{GP} = 9 A$			2	
$t_{st}$	$I_{TM} = 500 A$ , $di/dt = 200 A/\mu s$			8	$\mu s$
$dv/dt$	$T_j = 115^\circ C$ , $V_D = \frac{1}{2} V_{DRM}$ , $V_{GK} = -4 V$	900			
$I_H$	$T_c = 25^\circ C$ , $R_L = 1 \Omega$			30	A
$t_r$	$T_c = 110^\circ C$ , $I_{TM} = 500 A$			13	
$t_{ev}$	$V_D = \frac{1}{2} V_{DRM}$ , $V_{DM} = \frac{1}{2} V_{DRM}$			15	$\mu s$
$t_{tot}$	$C_s = 2 \mu F$ , $R_s = 20 \Omega$			180	
$I_{GR}$	$dig/dt = -20 A/\mu s$		150	180	A
$R_{th}$	接合~フィン間, DC			0.06	

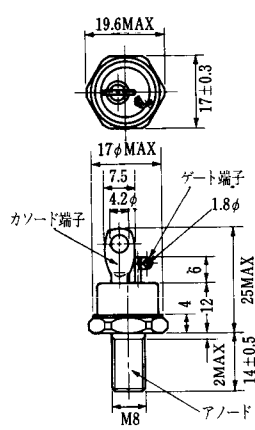
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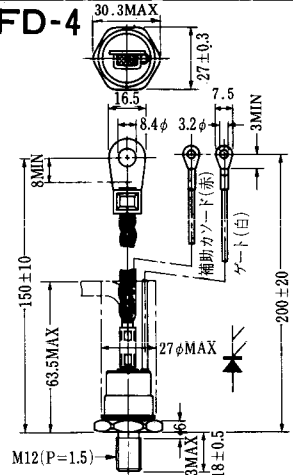
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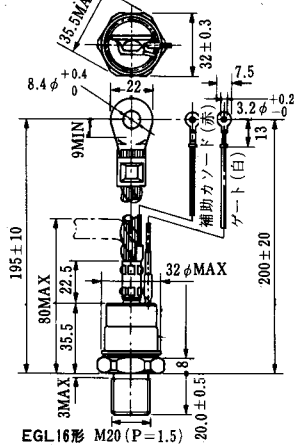
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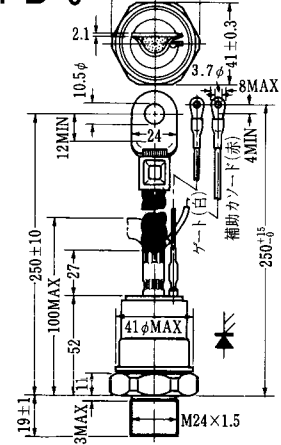
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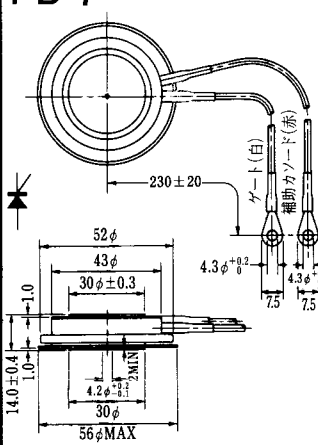
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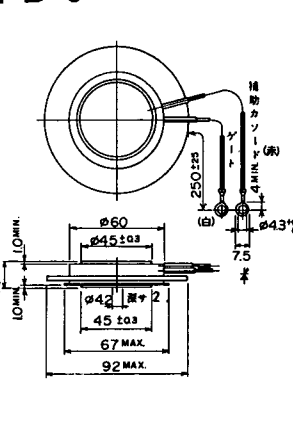
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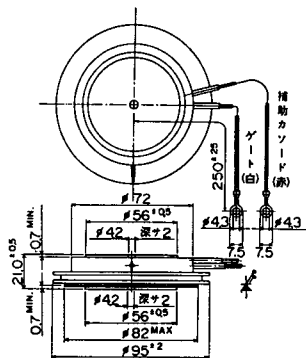
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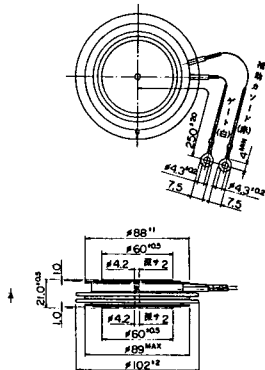
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FD-9

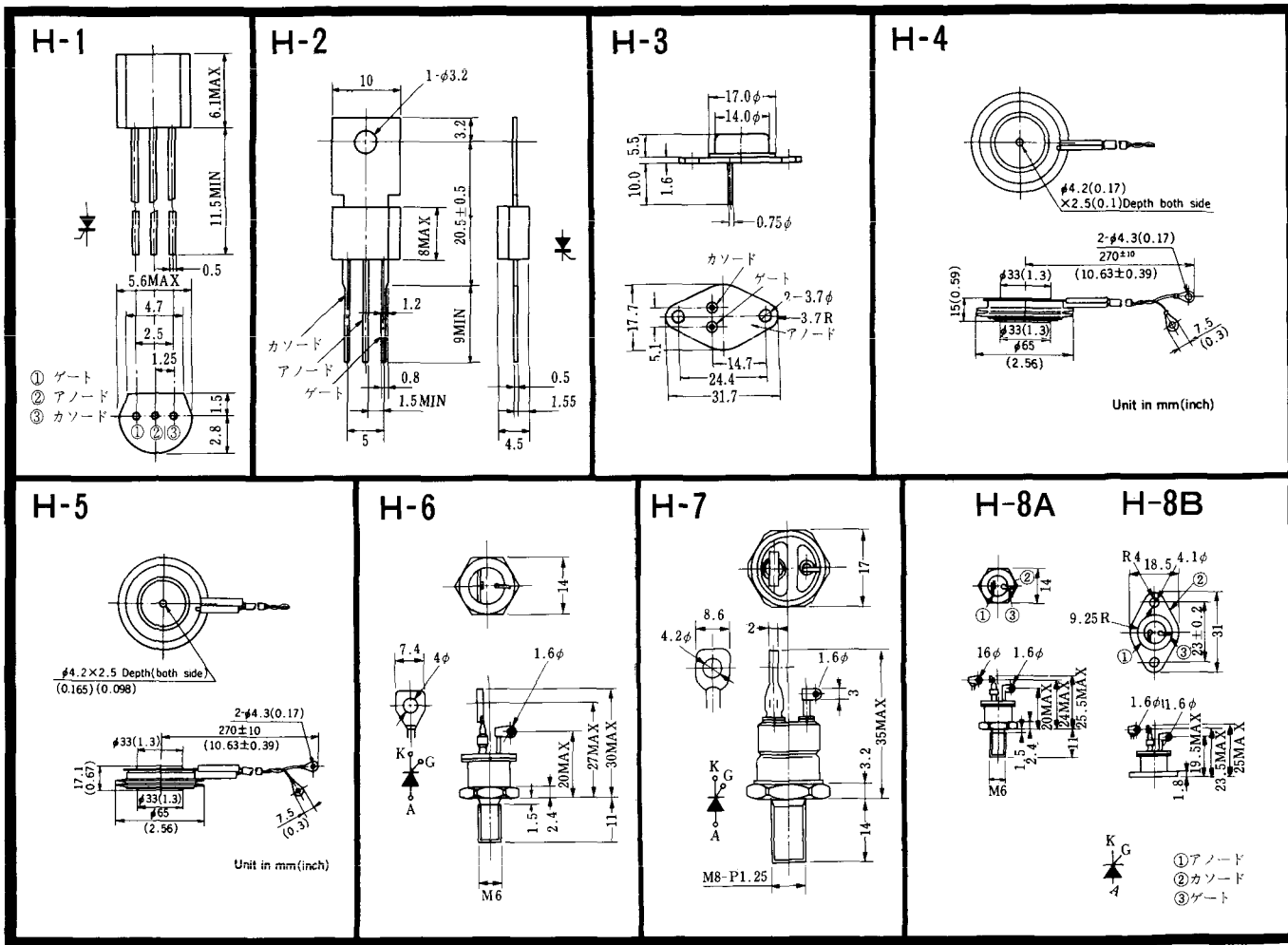


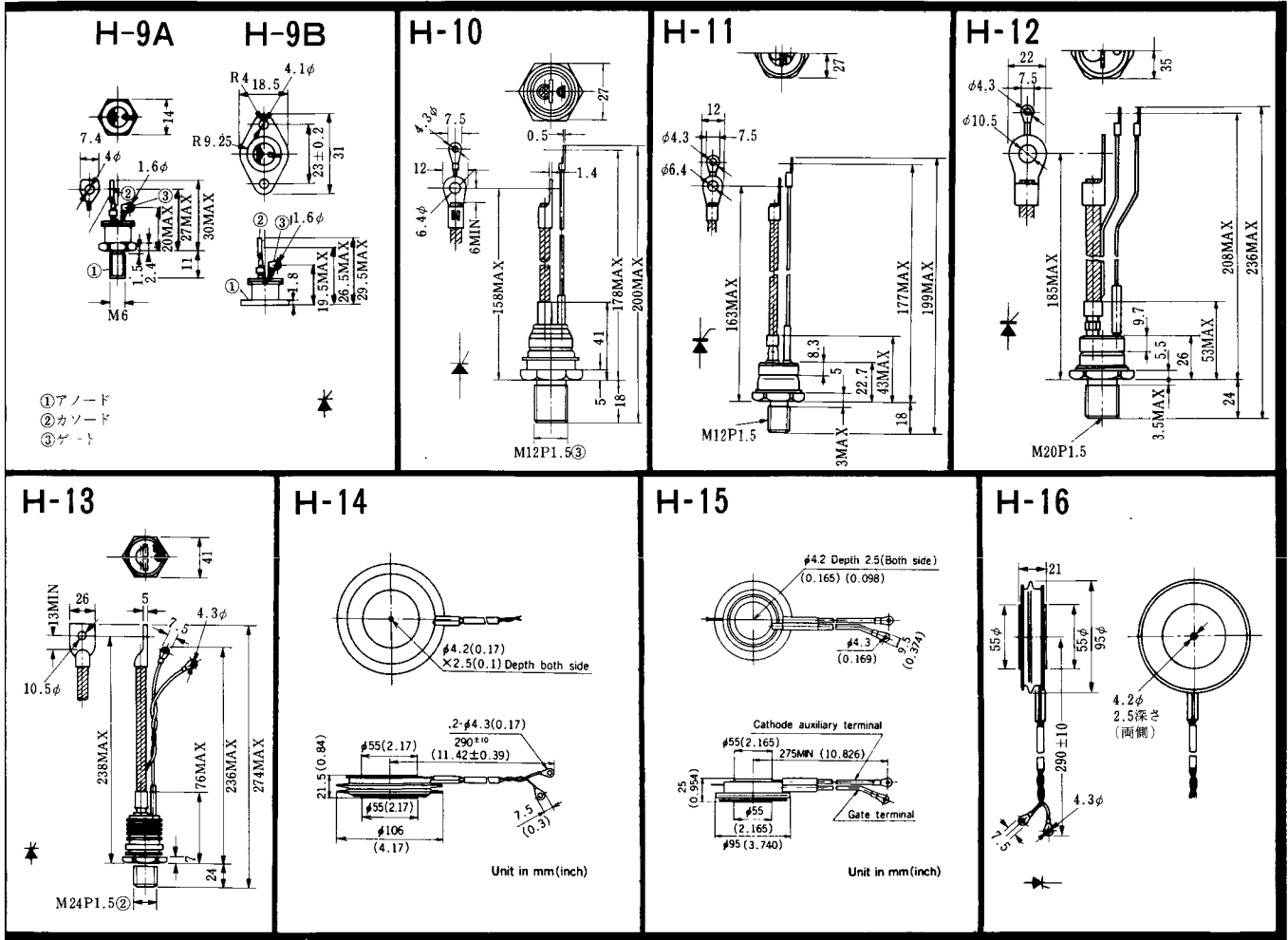
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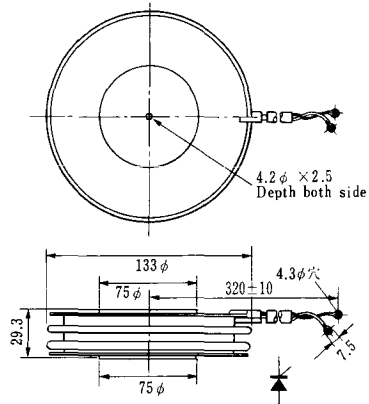
FD-11

FD-12

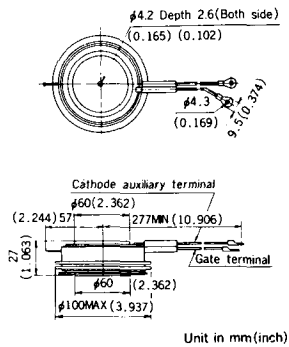




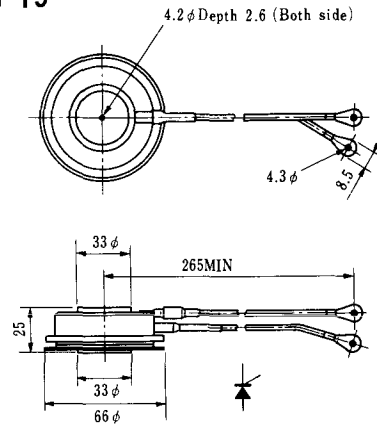
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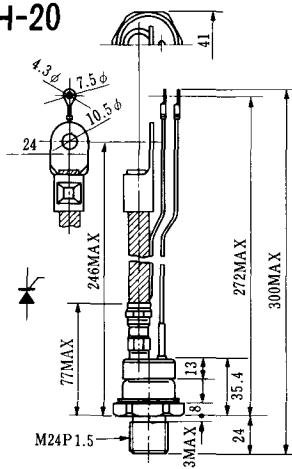
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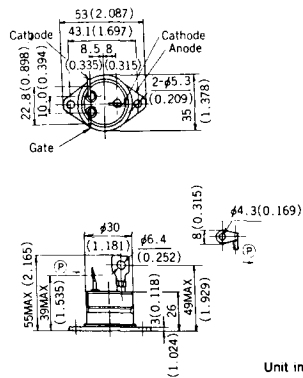
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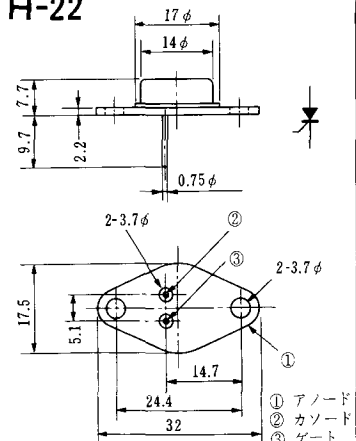
### H-20



### H-21

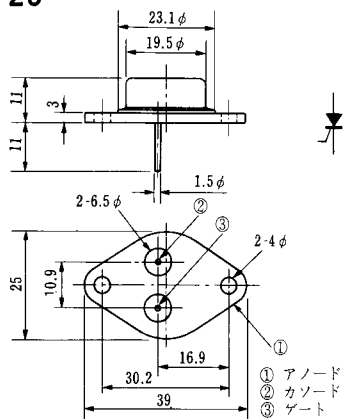


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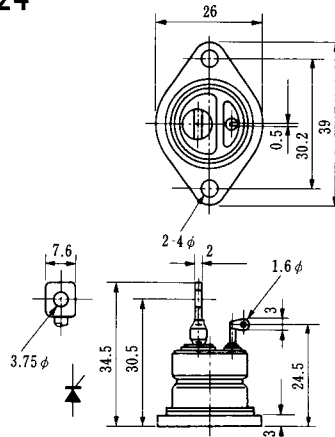


- ① アノード
- ② カソード
- ③ ゲート

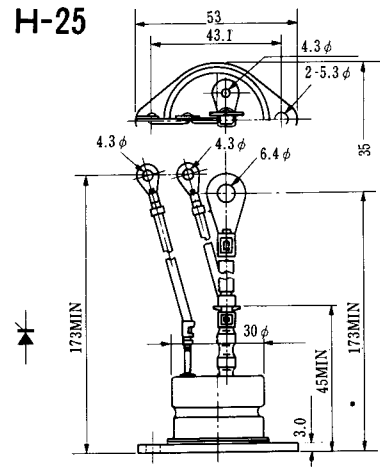
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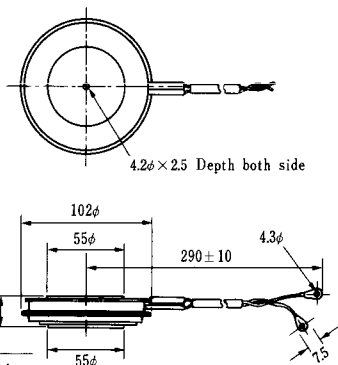
### H-24



### H-25



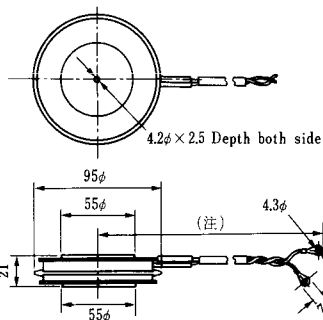
### H-26



Type	Direction of polarity
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CA12	
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### H-27

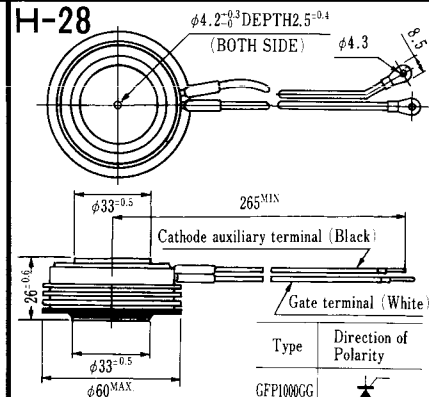


Type	Direction of polarity
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CF11V	
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(注) CC11V : 400 ± 10  
CF11V : 250 ± 10

### H-28

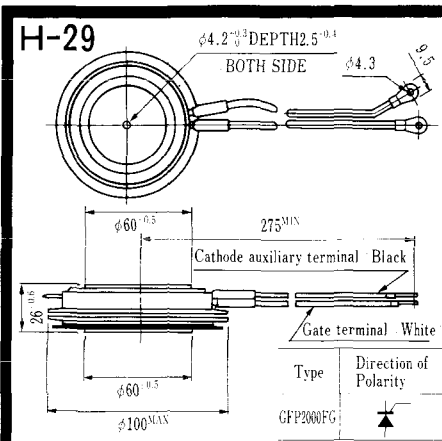


Type	Direction of Polarity
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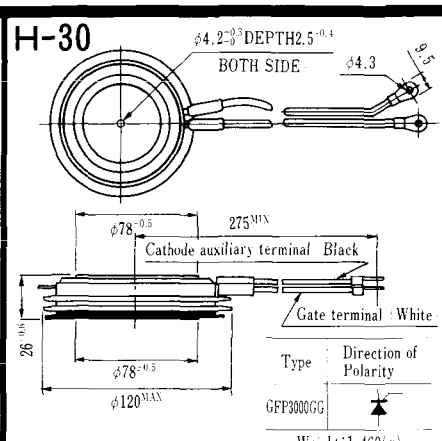
GFP100GG	
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Weight: 360(g)

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



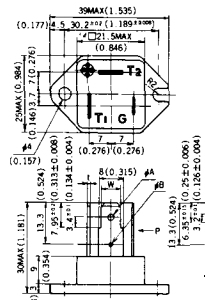
Note: The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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



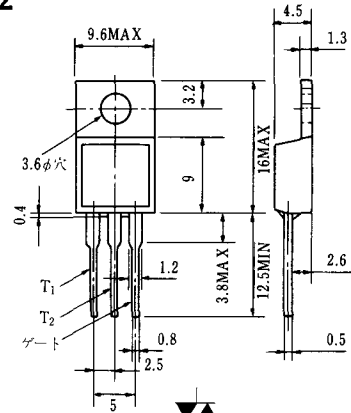
# HT-1



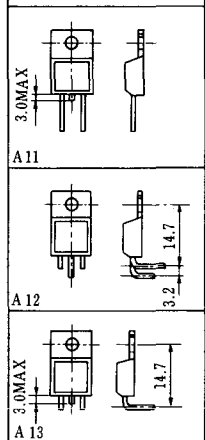
TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8 ± 0.025 (0.031 ± 0.001)	6.35 ± 0.1 (0.250 ± 0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup> <sub>0</sub> )	1.3 (0.051)
T <sub>2</sub>	0.8 ± 0.025 (0.031 ± 0.001)	6.35 ± 0.1 (0.250 ± 0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup>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

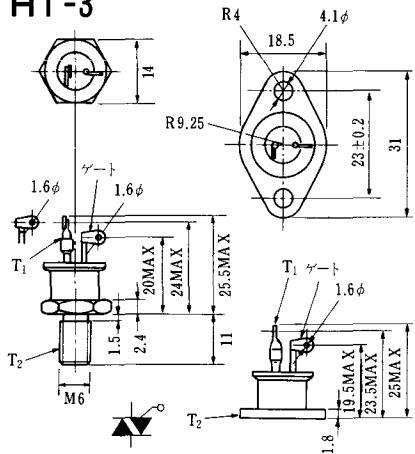
# HT-2



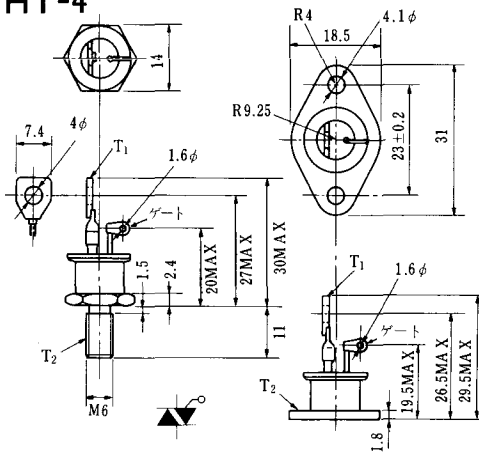
### リード加工標準寸法



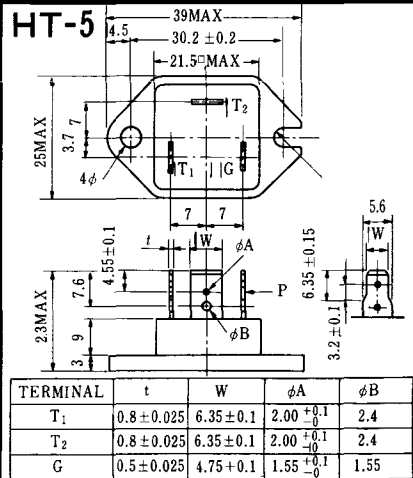
# HT-3



# HT-4



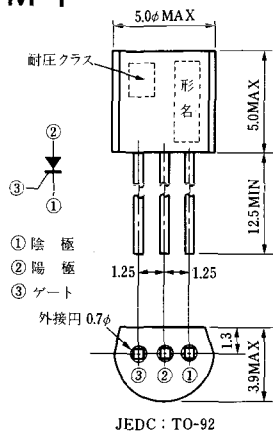
# HT-5



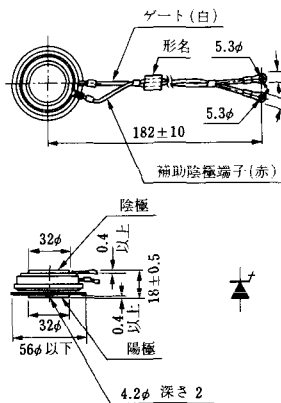
TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8 ± 0.025	6.35 ± 0.1	2.00 <sup>+0.1</sup> <sub>0</sub>	2.4
T <sub>2</sub>	0.8 ± 0.025	6.35 ± 0.1	2.00 <sup>+0.1</sup> <sub>0</sub>	2.4
G	0.5 ± 0.025	4.75 ± 0.1	1.55 <sup>+0.1</sup> <sub>0</sub>	1.55

<寸法図単位：mm>

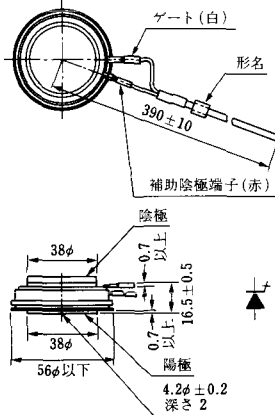
### M-1



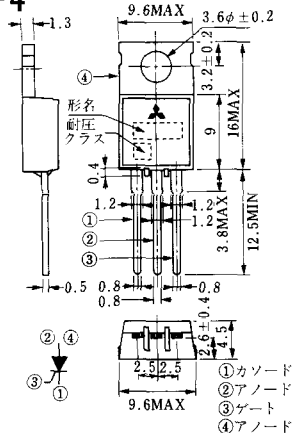
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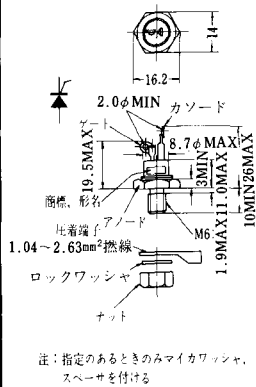
### M-3



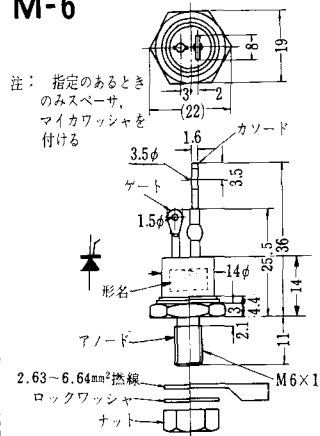
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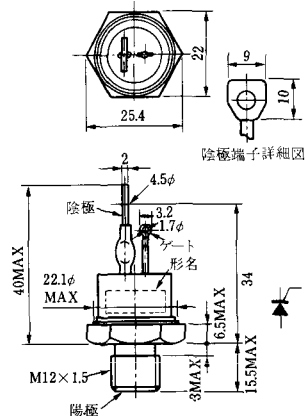
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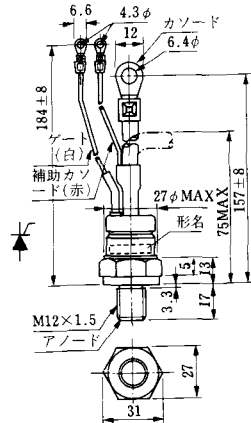
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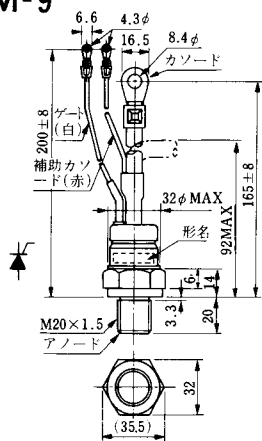
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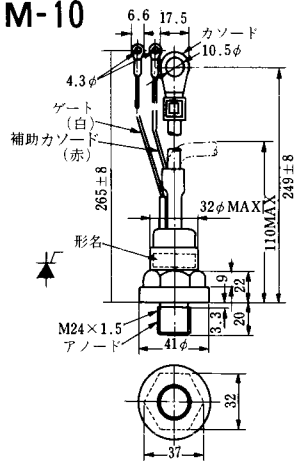
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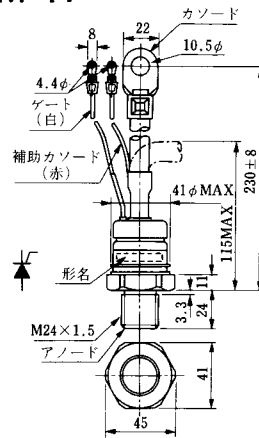
M-9



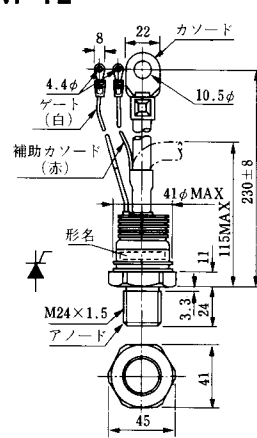
M-10



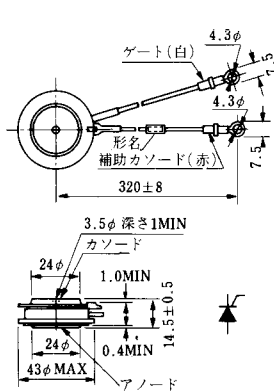
M-11



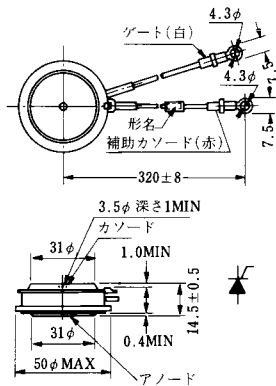
M-12



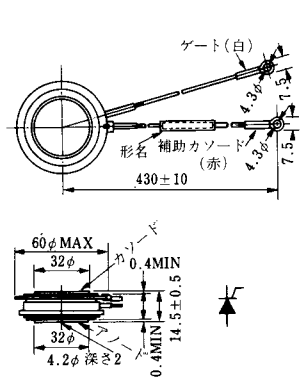
M-13



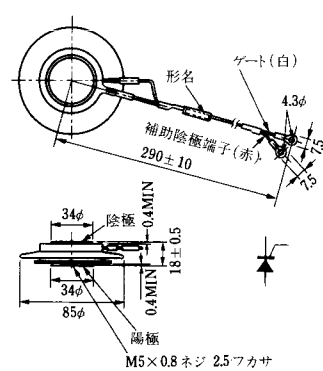
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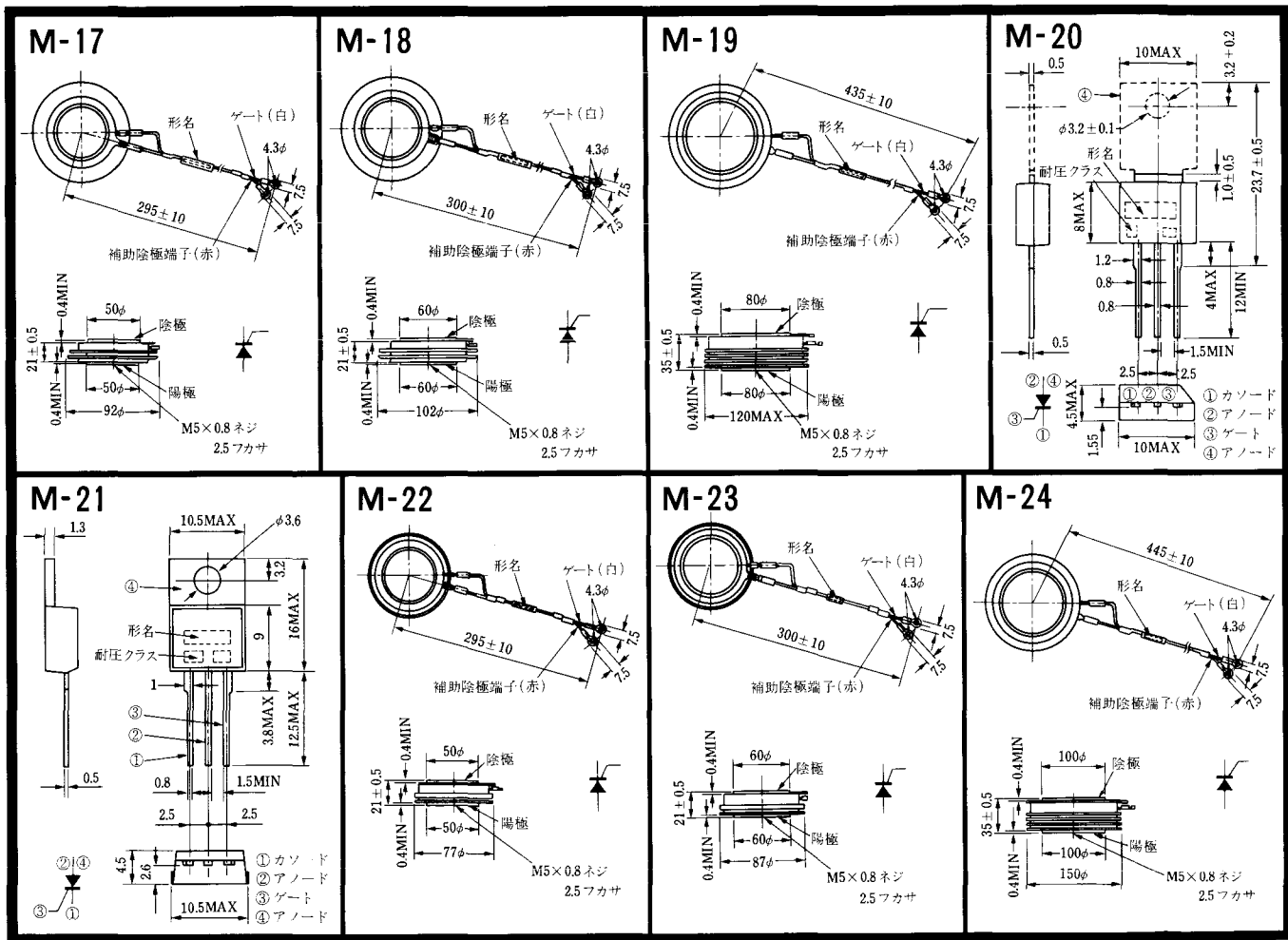


M-15

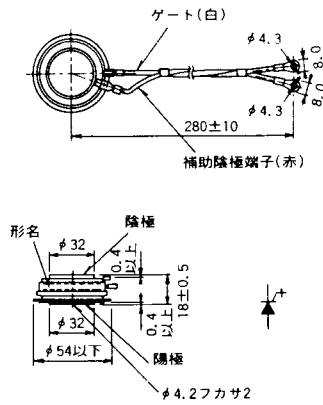


M-16

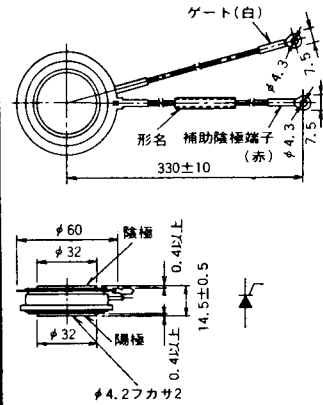




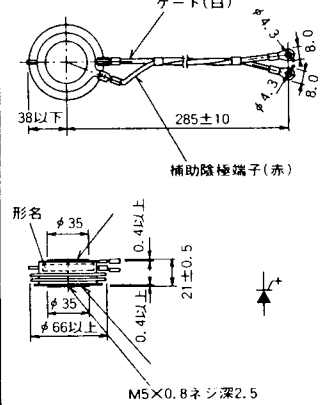
M-25



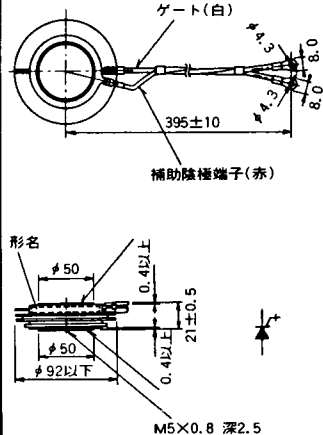
M-26



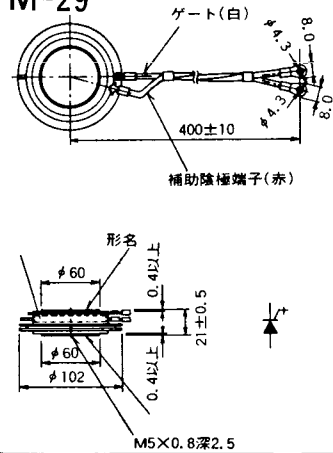
M-27



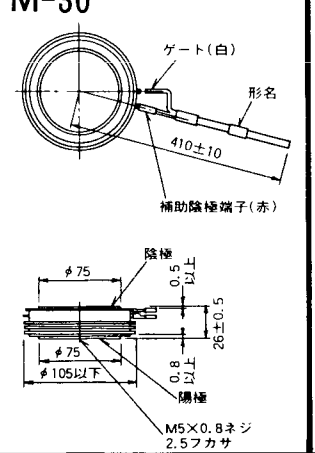
M-28



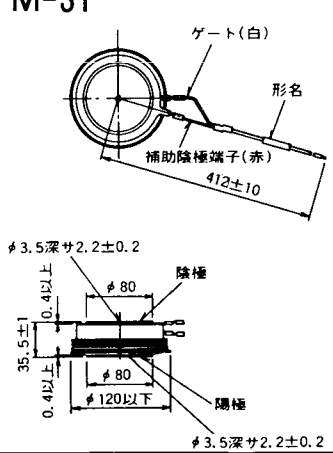
M-29



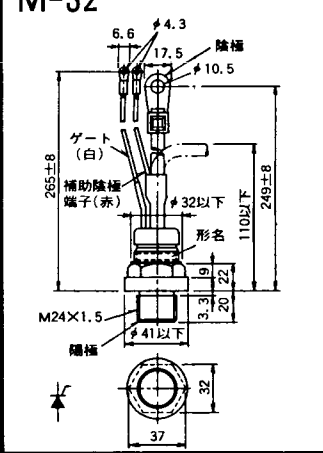
M-30



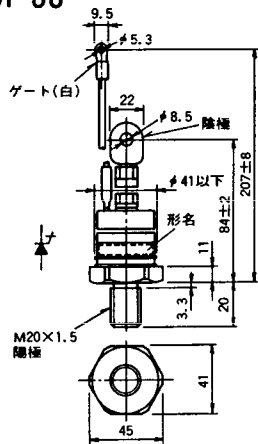
M-31



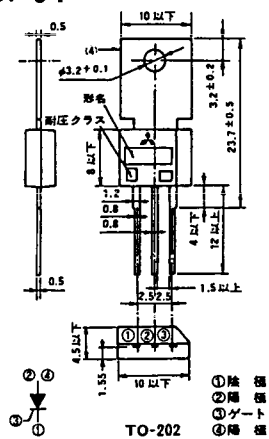
M-32



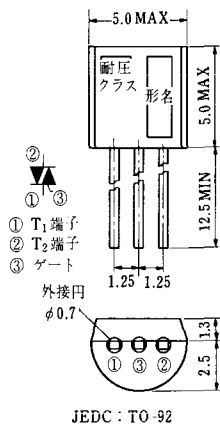
### M-33



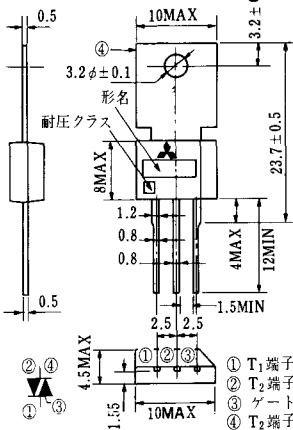
### M-34



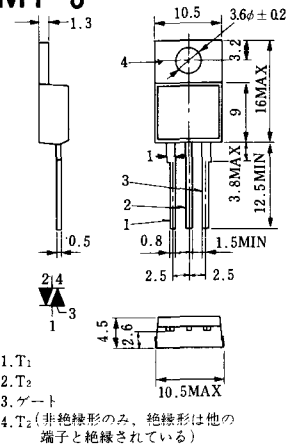
### MT-1



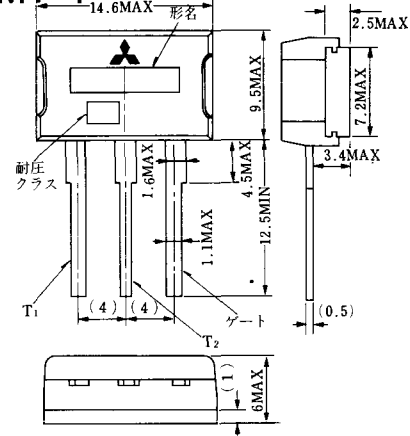
### MT-2



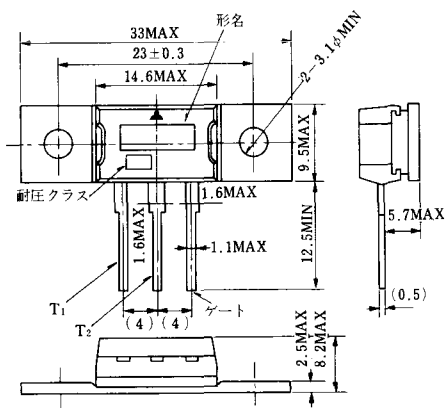
### MT-3



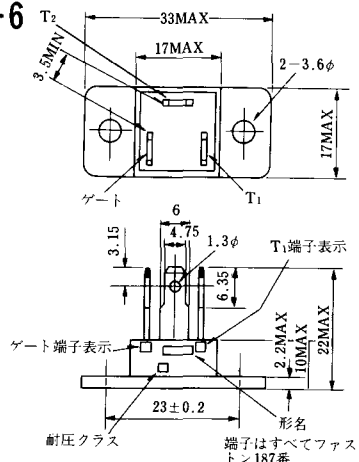
### MT-4



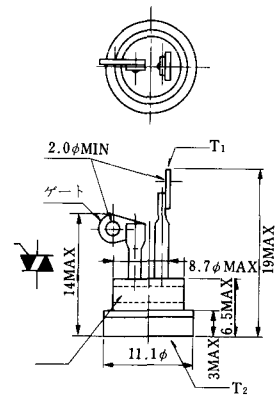
### MT-5



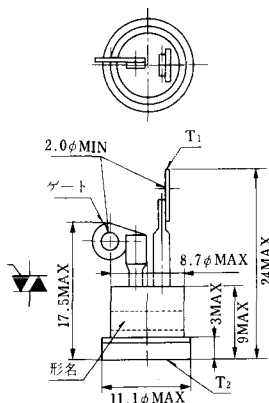
### MT-6



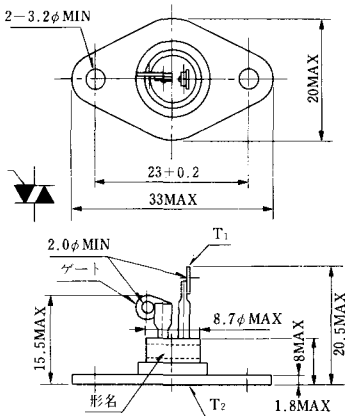
### MT-7



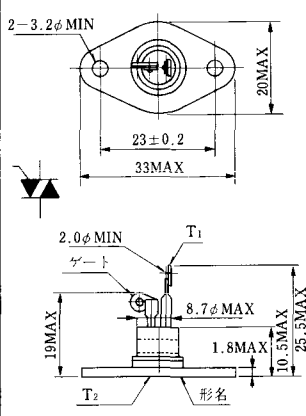
MT-8



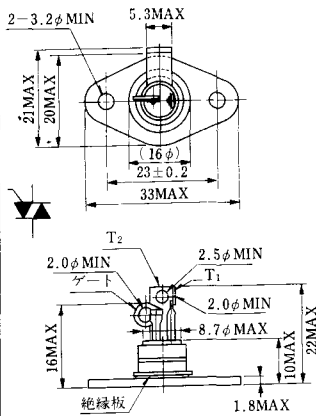
MT-9



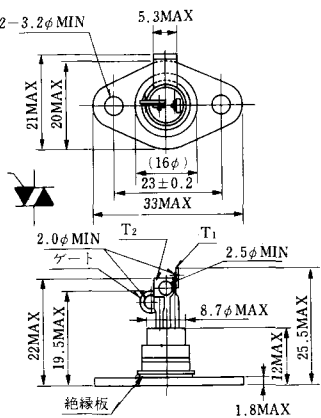
MT-10



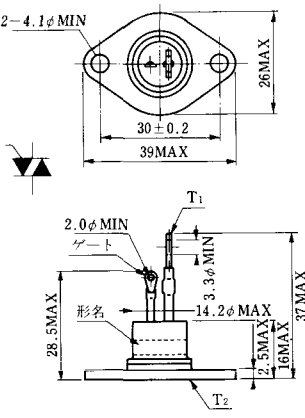
MT-11



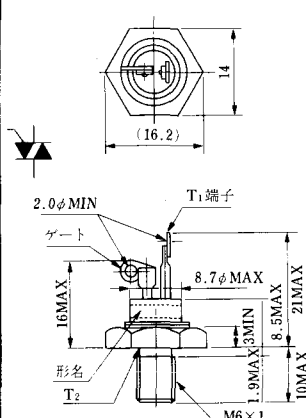
MT-12



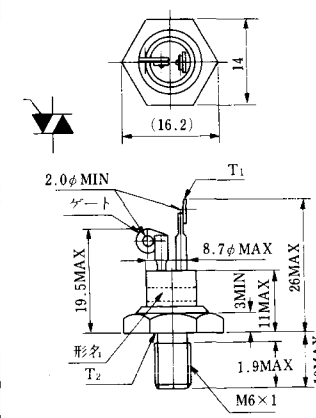
MT-13



MT-14

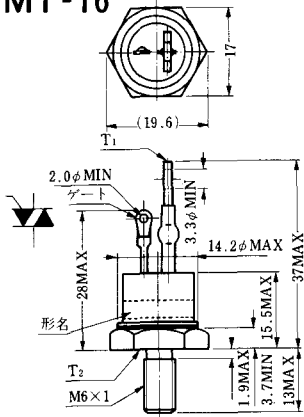


MT-15

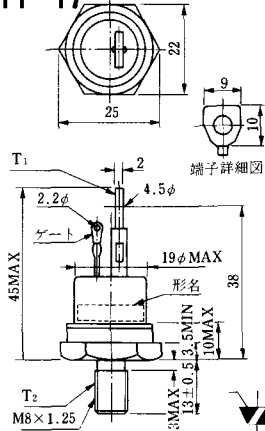




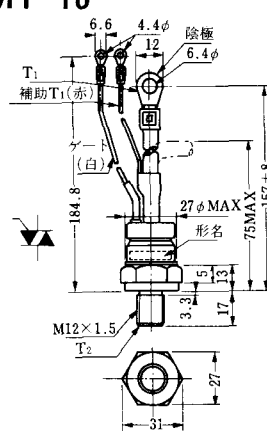
MT-16



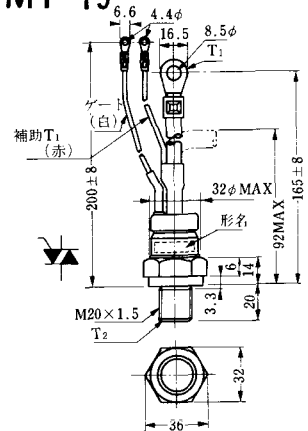
MT-17



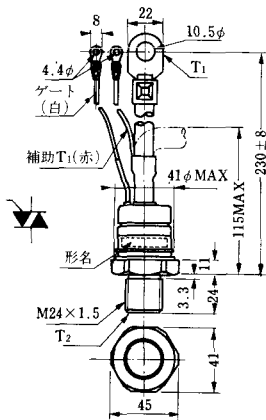
MT-18



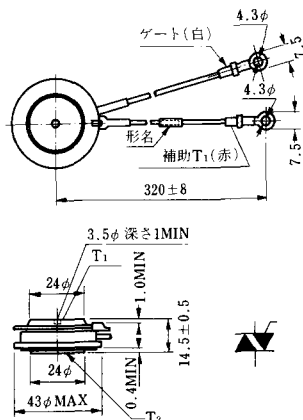
MT-19



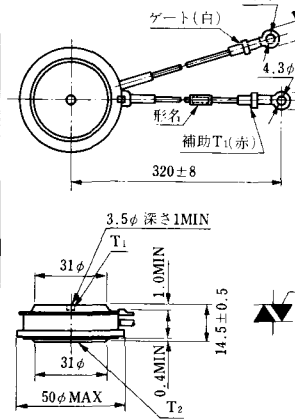
MT-20



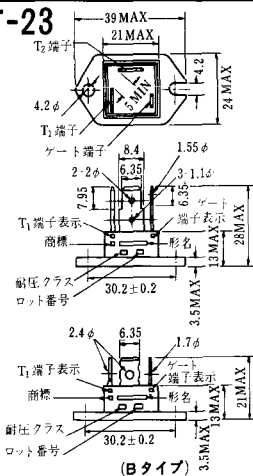
MT-21



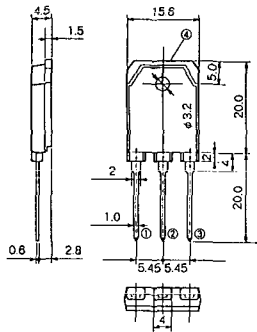
MT-22



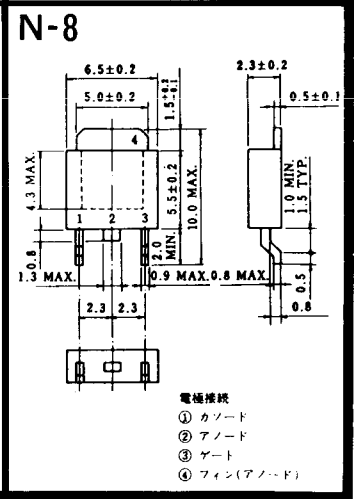
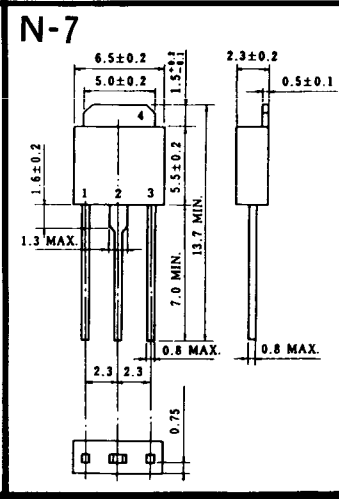
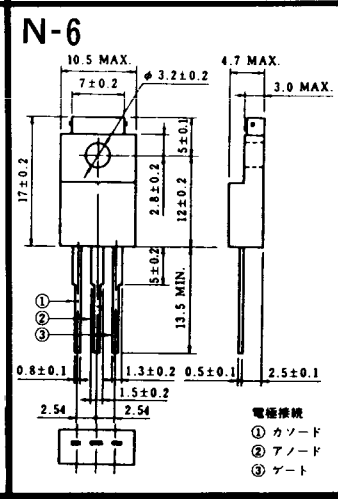
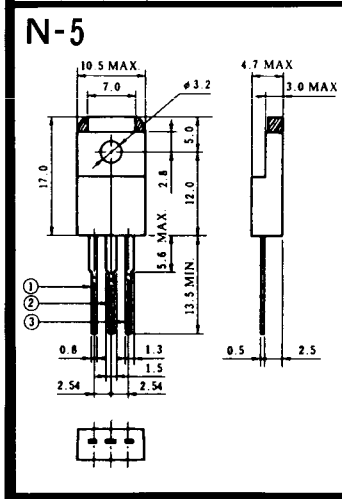
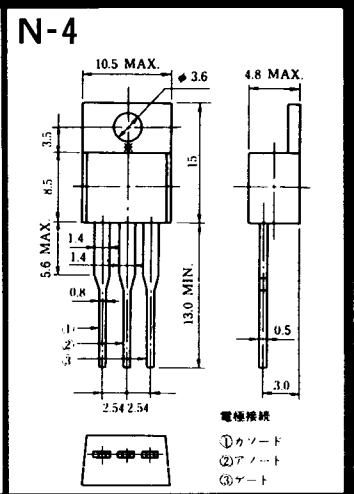
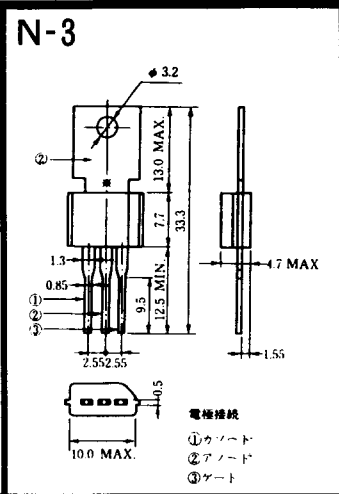
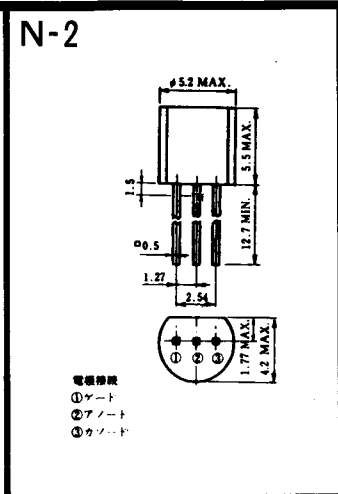
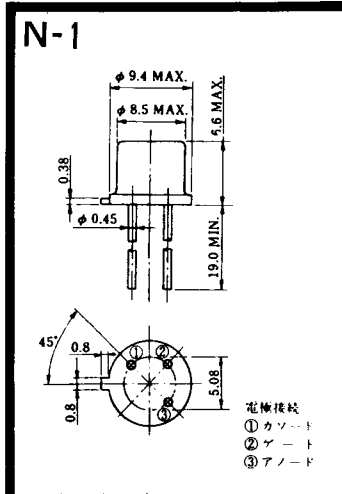
MT-23



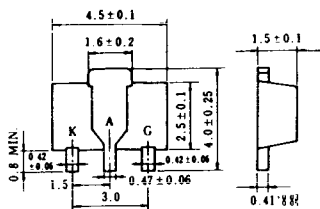
# MT-24



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



N-9



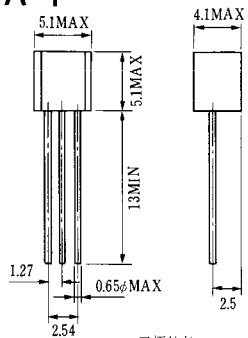
電極接続

K : カント

A : アノット

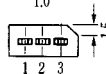
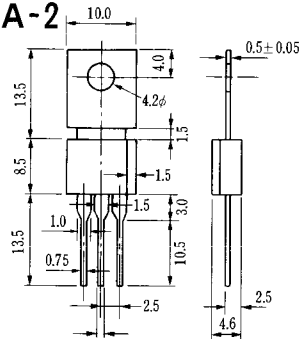
G : アート

### NA-1



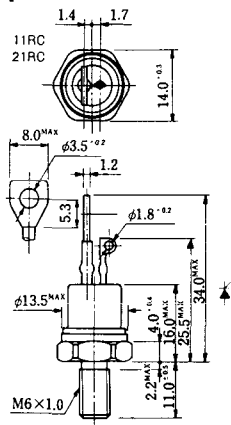
電極接続  
 1. ゲート  
 2. アノード  
 3. カソード  
 JEDEC: TO-92

### NA-2



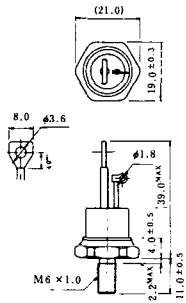
電極接続  
 1. カソード  
 2. アノード  
 3. ゲート  
 JEDEC: TO-202AA

### NI-1



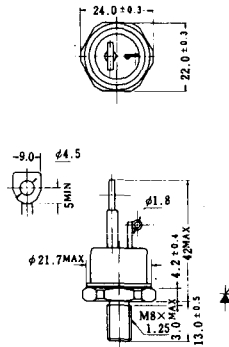
### NI-2

29RD



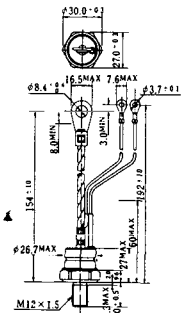
### NI-3

39RC  
59RC  
39RF  
59RF



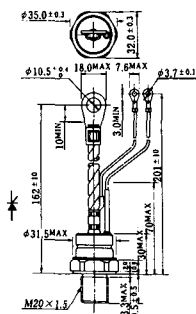
### NI-4

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



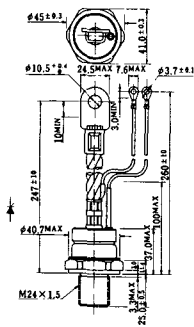
### NI-5

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



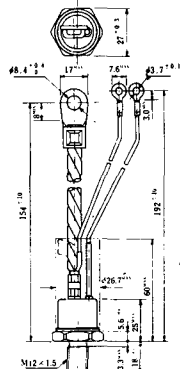
### NI-6

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



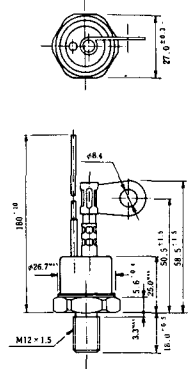
### NI-7

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



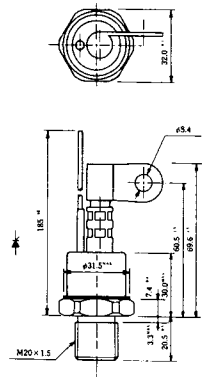
### NI-8

89RW  
129RW



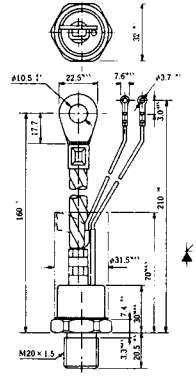
### NI-9

259RW  
309RW



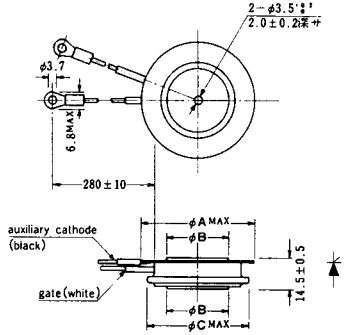
### NI-10

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



### NI-11

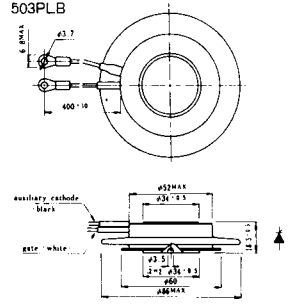
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



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

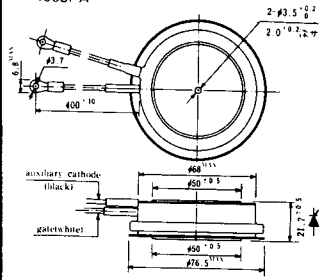
### NI-12

403PAB  
503PAB  
503PLB



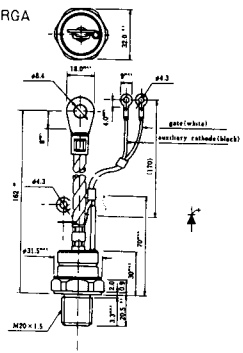
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



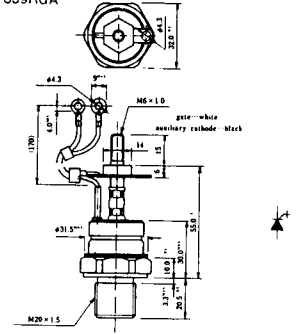
### NI-14

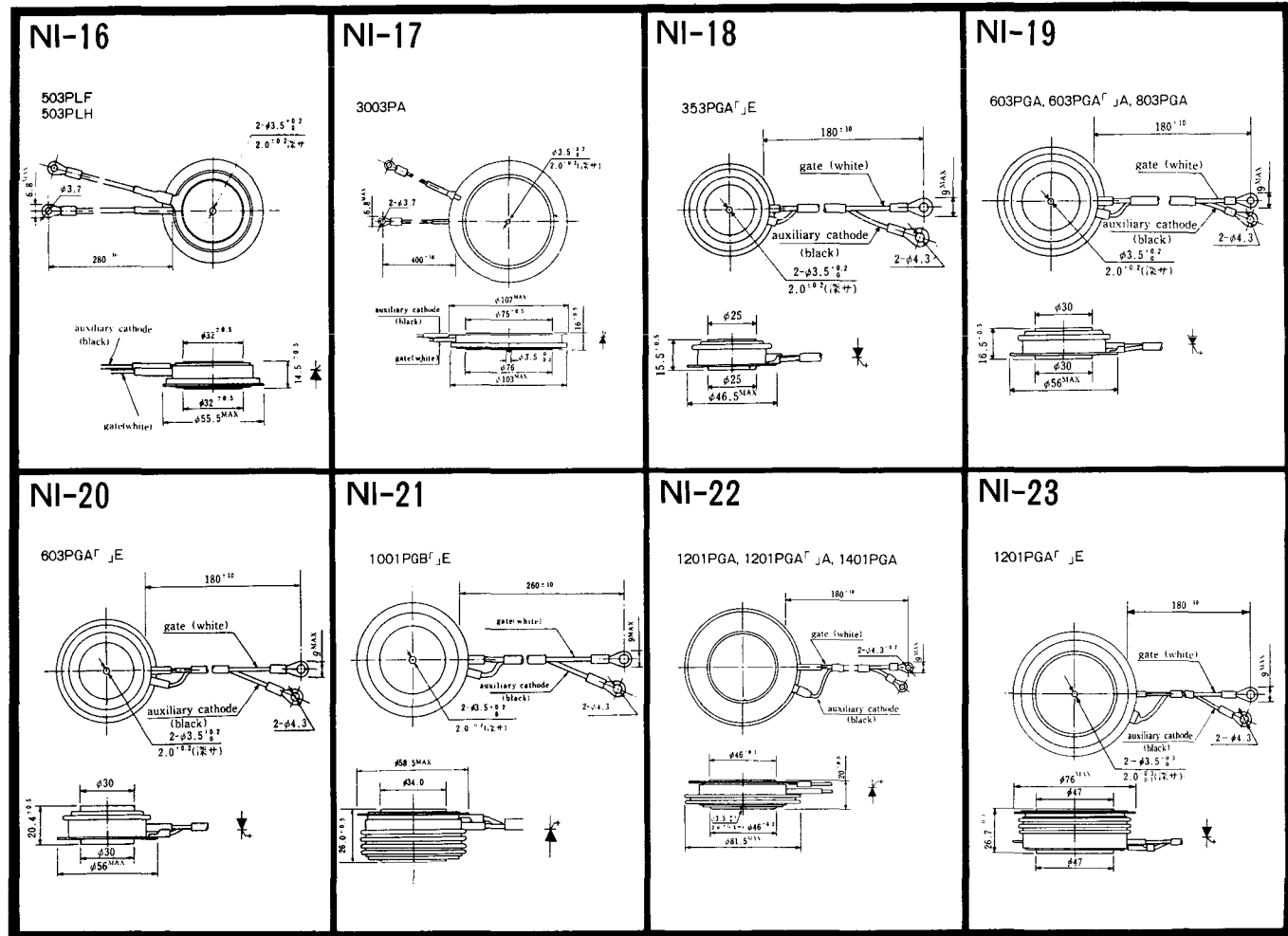
358RGA



### NI-15

359RGA

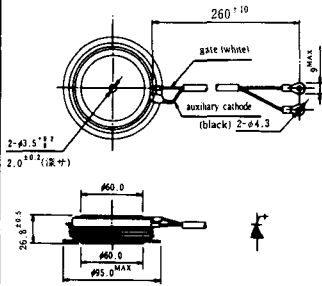






NI-24

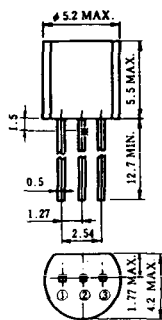
2001PGB<sup>r</sup> JE



NI-25

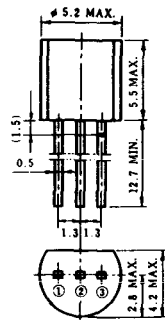
NI-26

### NT-1



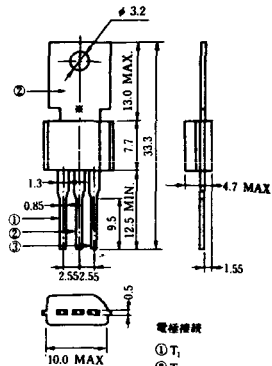
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-2



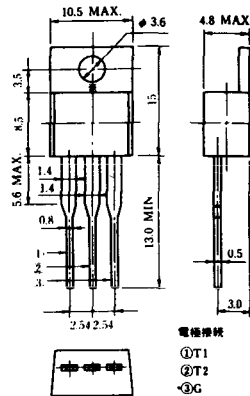
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-3



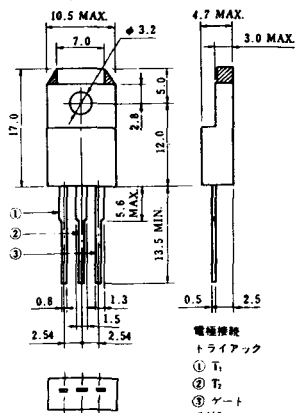
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート

### NT-4



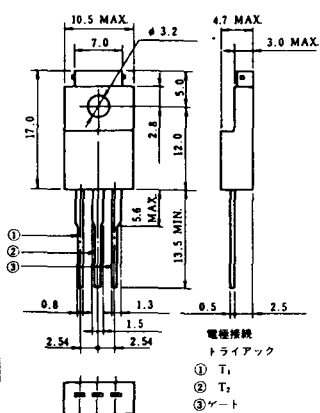
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G

### NT-5



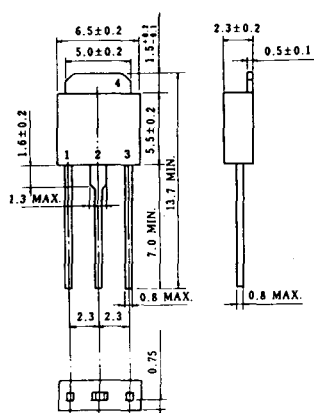
電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 2g

### NT-6

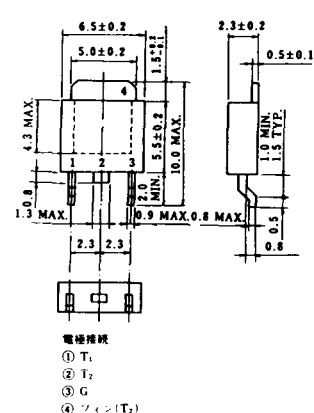


電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 2k

### NT-7

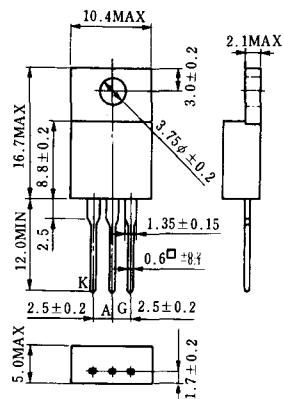


### NT-8

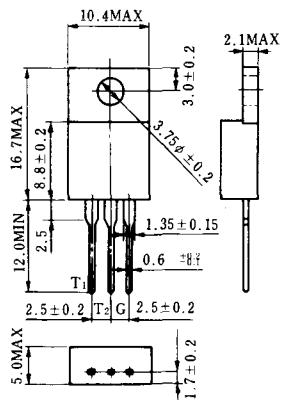


電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G  
④ シェン(T<sub>2</sub>)

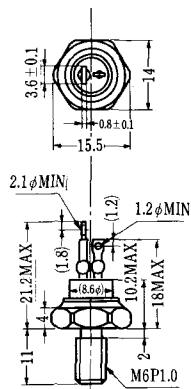
### S-1



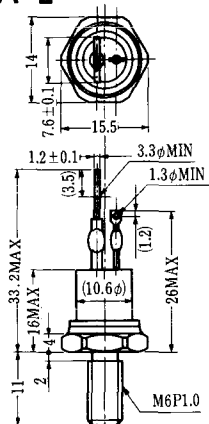
### ST-1



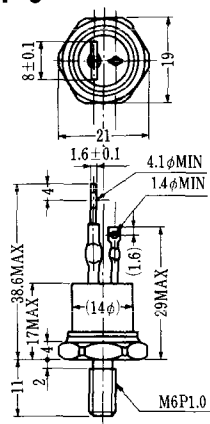
SA-1



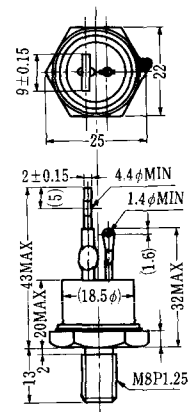
SA-2



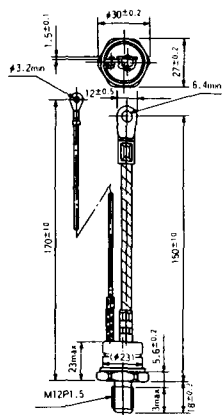
SA-3



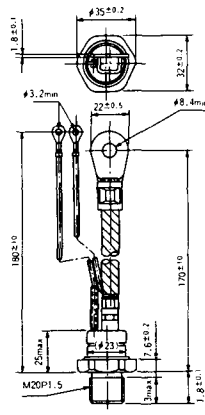
SA-4



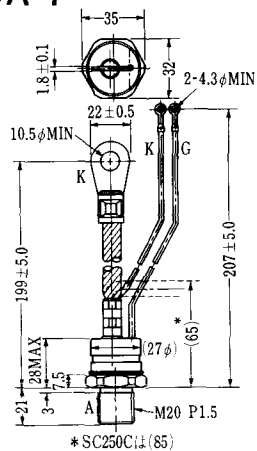
SA-5



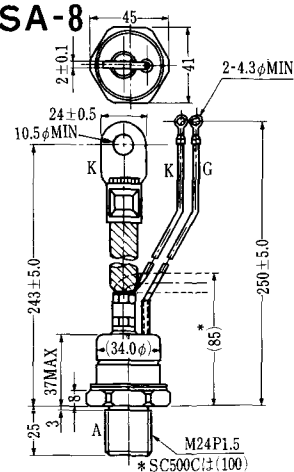
SA-6



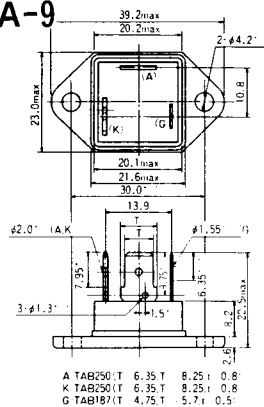
SA-7



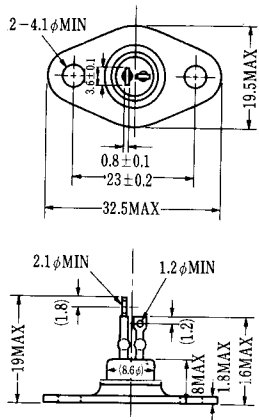
SA-8



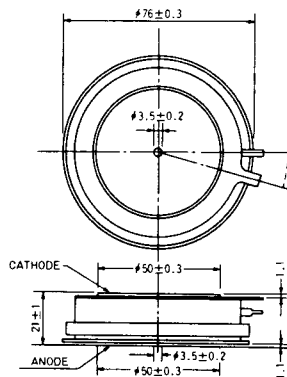
### SA-9



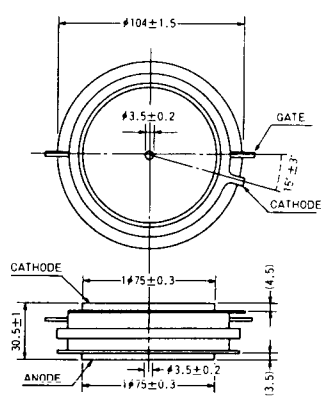
### SA-10



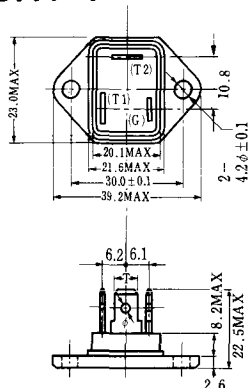
### SA-11



### SA-12

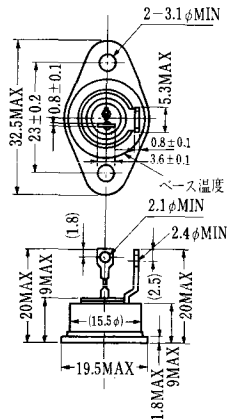


SAT-1



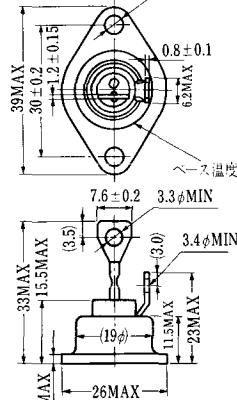
T1 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 T2 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 C 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

SAT-2



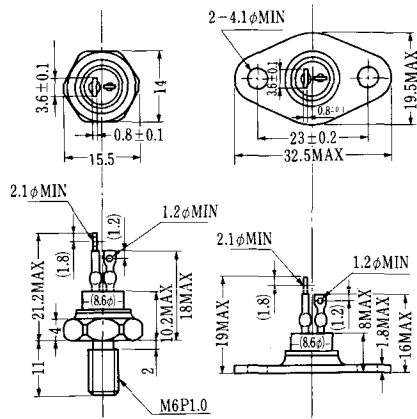
へス 組度

SAT-3

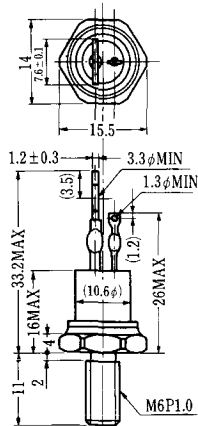


又組入時

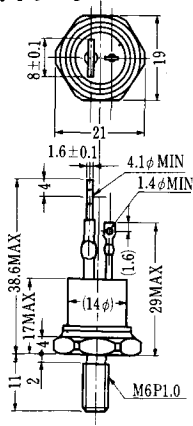
SAT-4



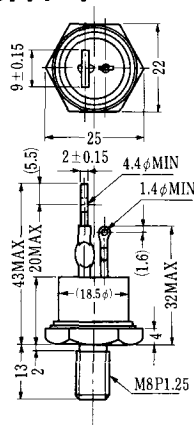
SAT-5



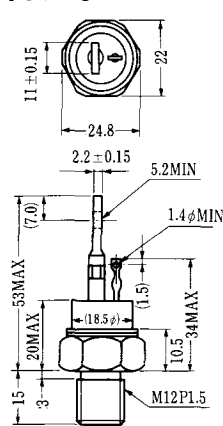
SAT-6



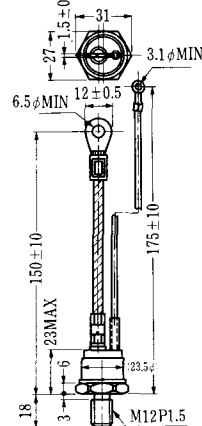
SAT-7



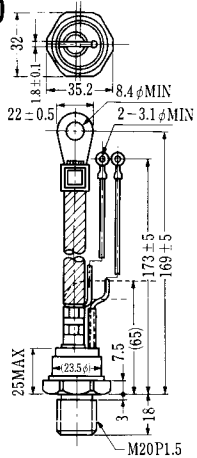
SAT-8



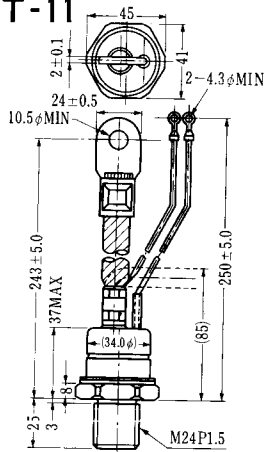
SAT-9



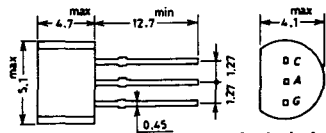
SAT-10



SAT-11

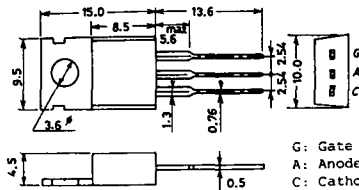


### SY-1 (1096A)



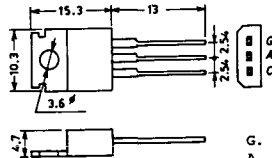
C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



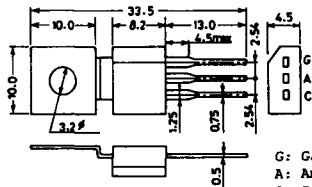
G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

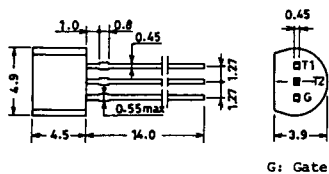
### SY-4 (1150)



G: Gate  
A: Anode  
C: Cathode

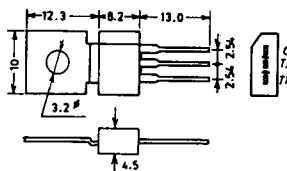


1097A

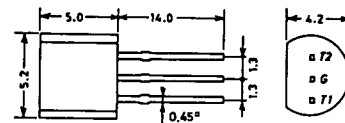


G: Gate

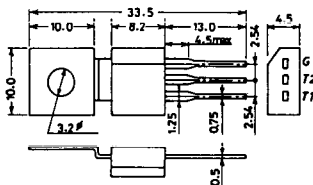
1102



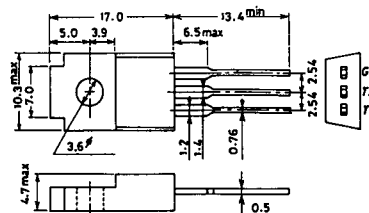
1141



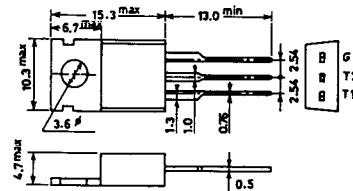
1142



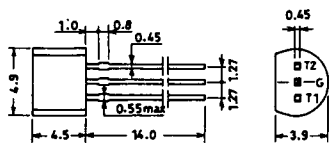
1144



1155

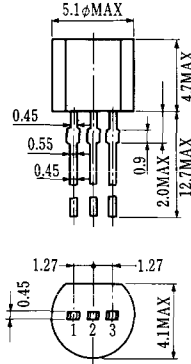


1192A



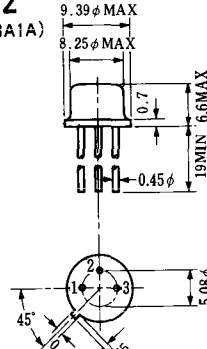
G: Gate

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



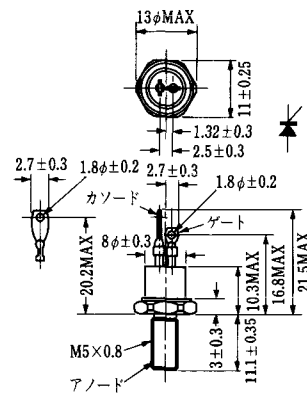
- 1 ゲート
- 2 アノード
- 3 カソード

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



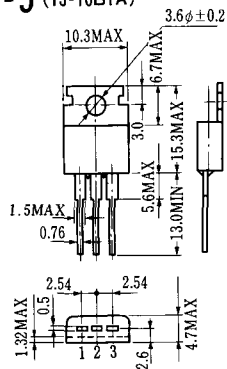
1. カソード
2. ゲート
3. アノード(ケース)

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



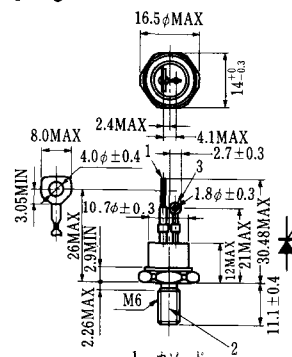
- 1 カソード
- 2 アノード
- 3 ゲート

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



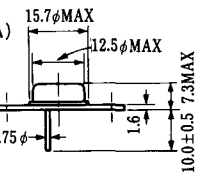
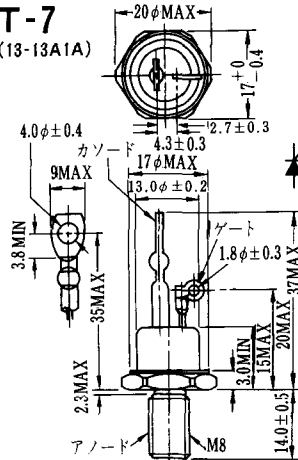
- 1 カソード
- 2 アノード
- 3 ゲート

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



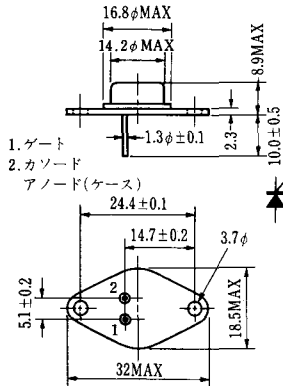
- 1 カソード
- 2 アノード
- 3 ゲート

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



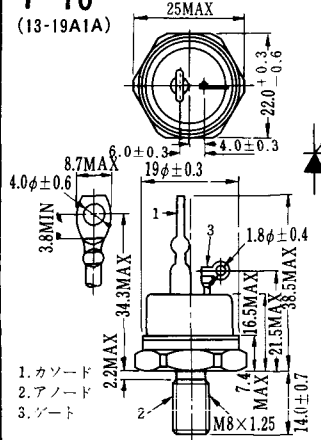
1. ゲート
2. カソード
3. アノード(ケース)

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



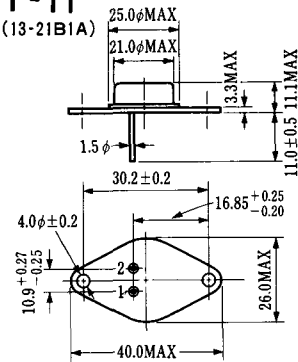
1. ゲート
2. カソード
- アノード(ケース)

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



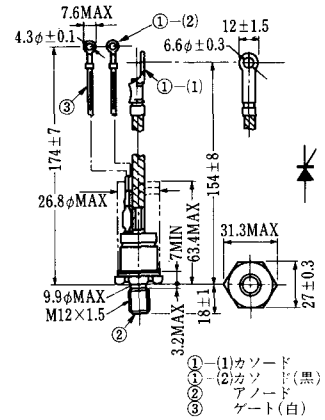
1. カソード
2. アノード
3. ゲート

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



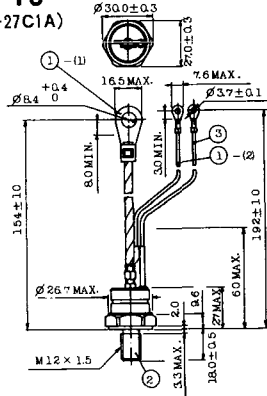
1. ゲート
2. カソード
- アノード(ケース)

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



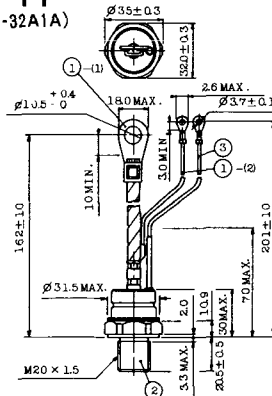
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



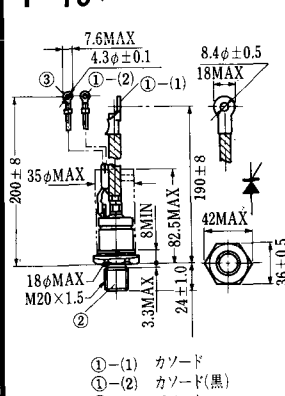
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



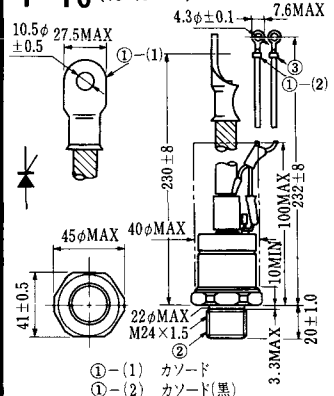
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



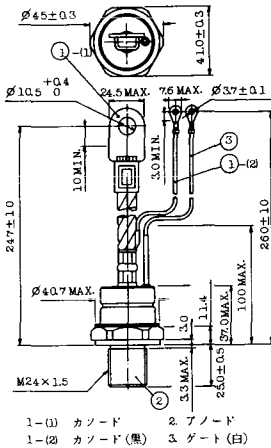
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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

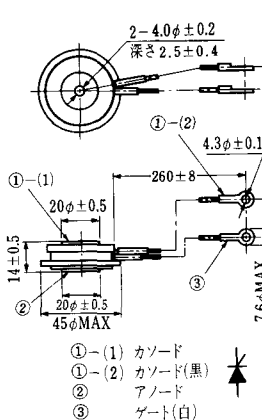


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

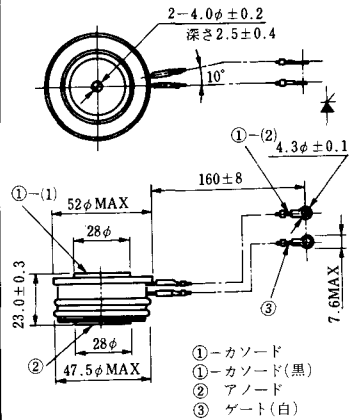
T-17 (13-42A1A)



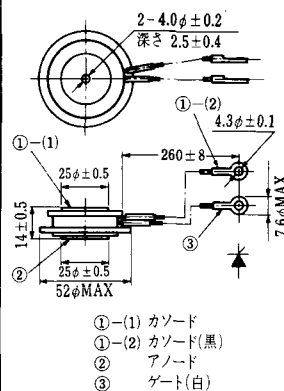
T-18 (13-45D1A)



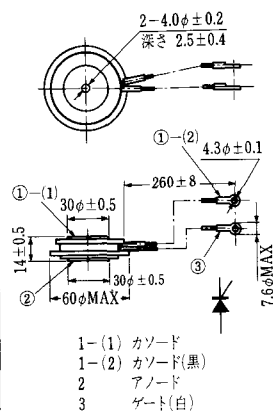
T-19 (13-52B1A)



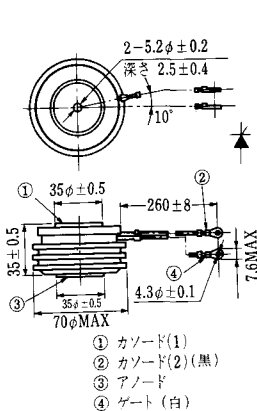
T-20 (13-52C1A)



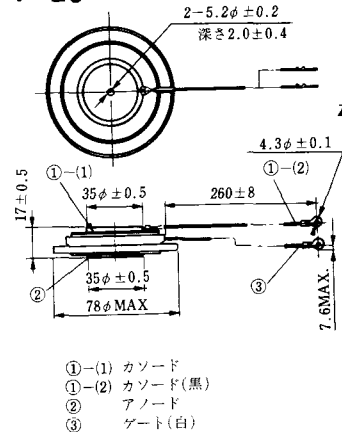
T-21 (13-60A1A)



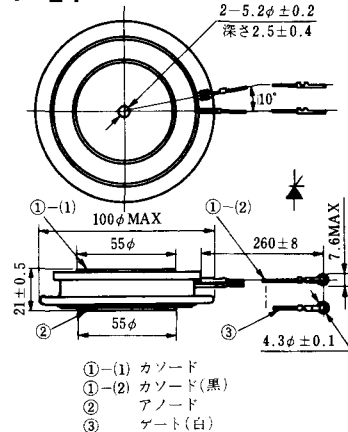
T-22 (13-70C1A)



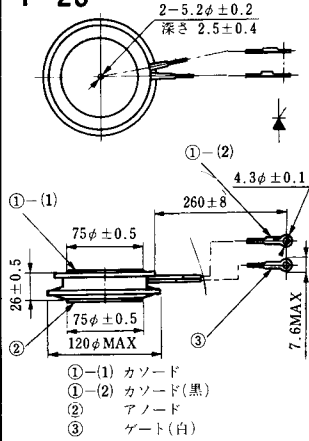
T-23 (13-78A1A)



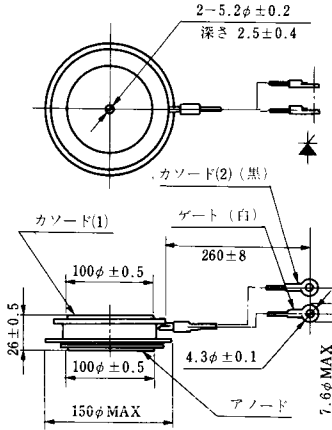
T-24 (13-100C1A)



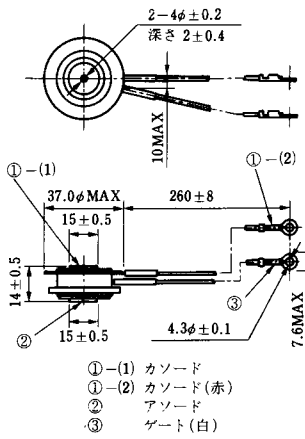
**T-25** (13-120A2A)



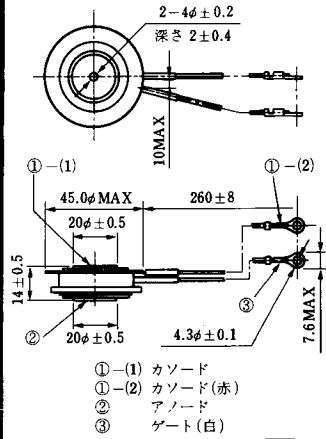
**T-26** (13-150A1A)



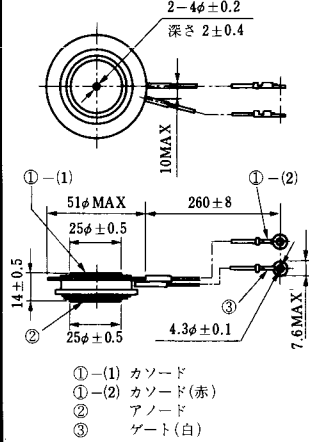
**T-27** (13-37A1A)



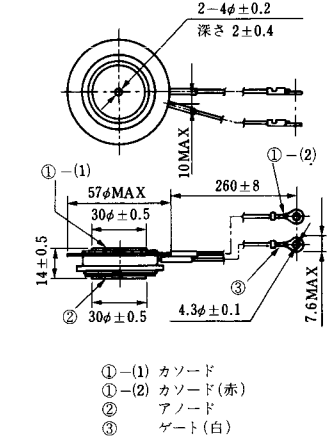
**T-28** (13-45E1A)



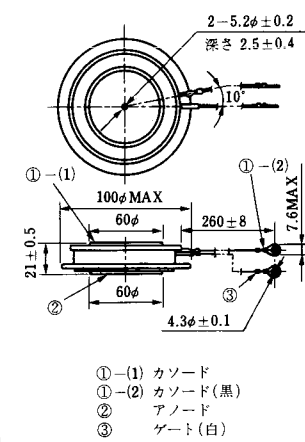
**T-29** (13-51A1A)



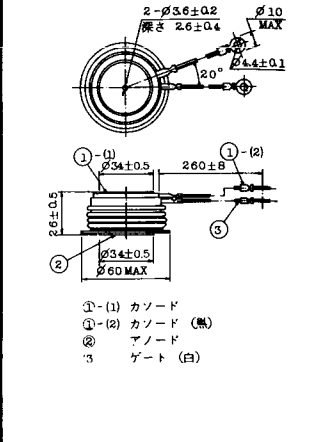
**T-30** (13-57A1A)



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

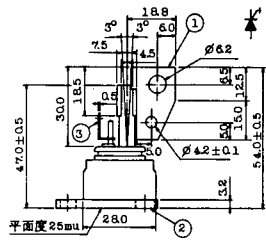
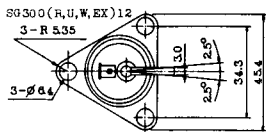


**T-32** (13-60E3A)



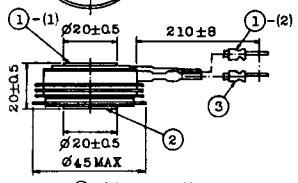
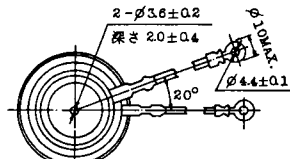


### T-41 (13-28A2A)



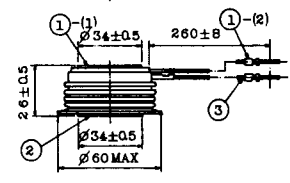
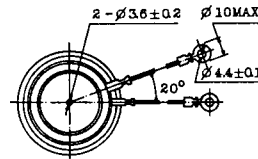
- 1 カソード
- 2 アノード
- 3 ゲート

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



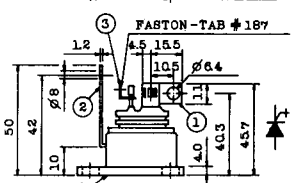
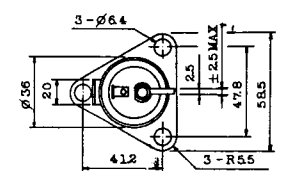
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



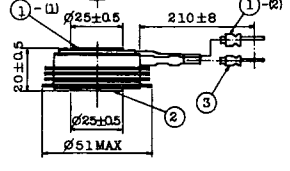
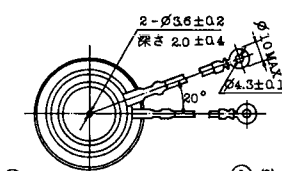
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



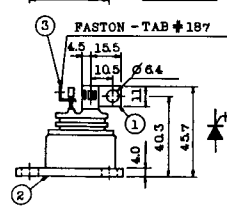
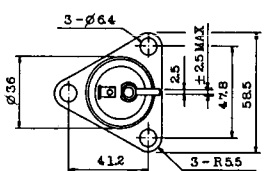
- 1 カソード
- 2 アノード
- 3 ゲート

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



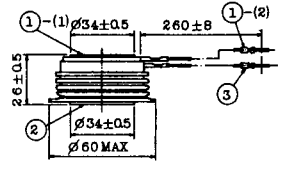
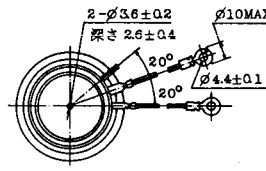
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



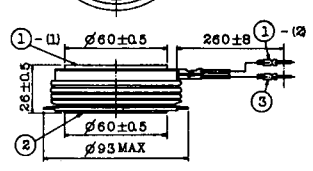
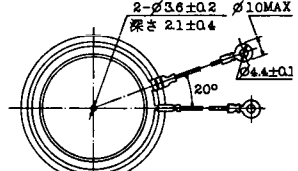
- 1 カソード
- 2 アノード
- 3 ゲート

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



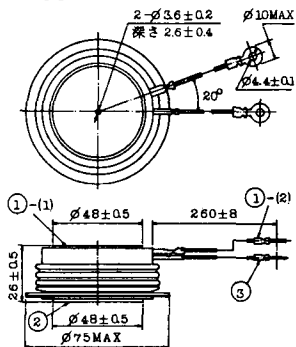
- ①-①) カソード
- ①-②) カソード(黒)
- ②) アノード
- ③) ゲート(白)

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



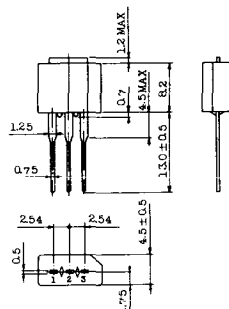
- ①-①) カソード
- ①-②) カソード(黒色)
- ②) アノード
- ③) ゲート(白色)

T-49 (13-75A1A)



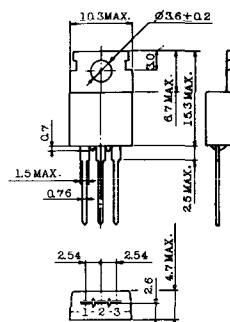
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

T-50 (13-10A3A)



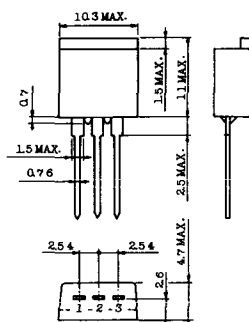
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



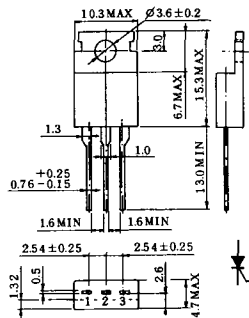
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



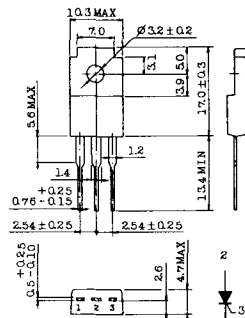
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



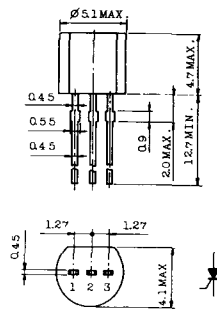
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



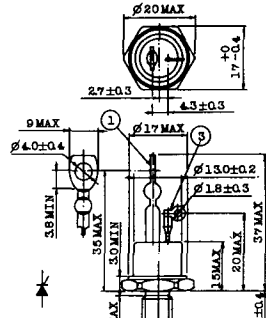
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



- 1 カソード
- 2 アノード
- 3 アノード

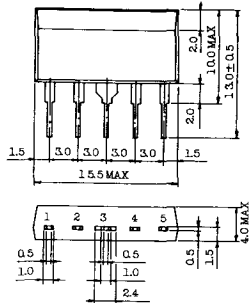
T-56 (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

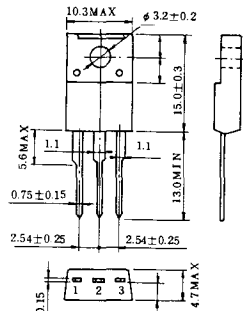


T-57 (12-16C1A)



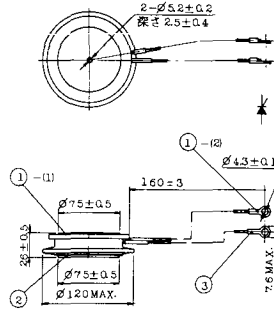
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



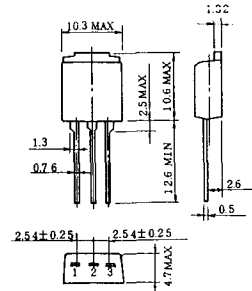
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



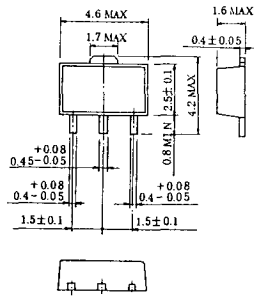
- 1-1) カソード
- 1-1) カソード (黒)
- 2) アノード
- 3) ゲート (白)

T-60



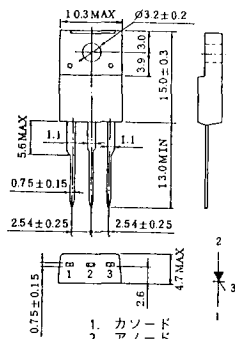
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



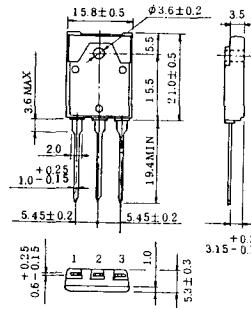
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



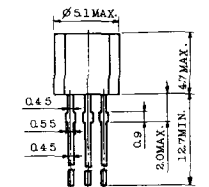
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



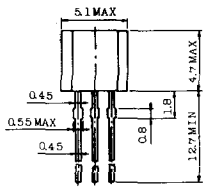
1. カソード
2. アノード
3. ゲート

TT-1



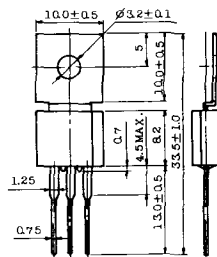
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



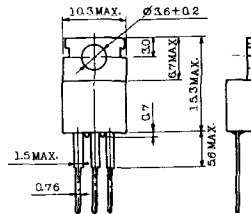
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



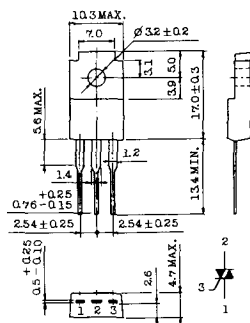
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



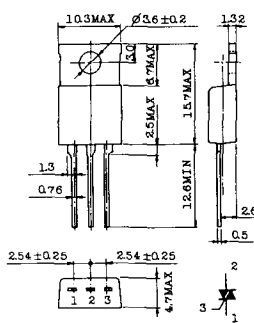
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



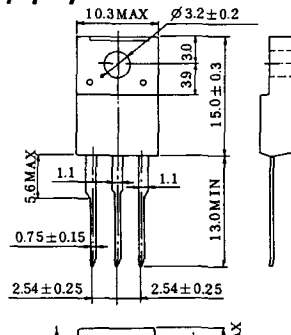
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



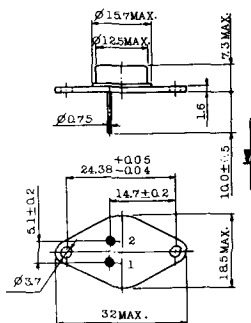
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



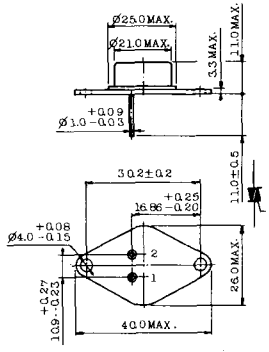
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-8



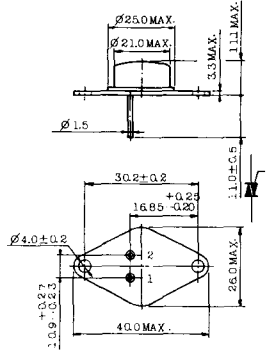
- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



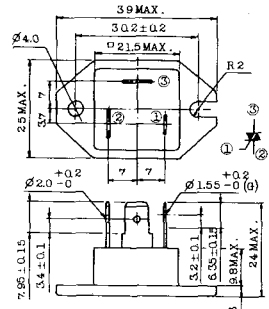
- 1. ゲート
- 2. T<sub>1</sub>
- 3. T<sub>2</sub> (ケース)

TT-10



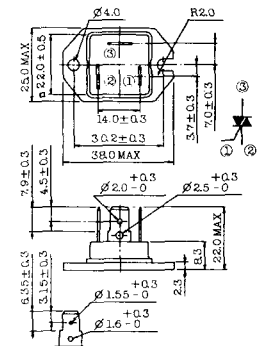
- 1. ゲート
- 2. T<sub>1</sub>
- 3. T<sub>2</sub> (ケース)

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)

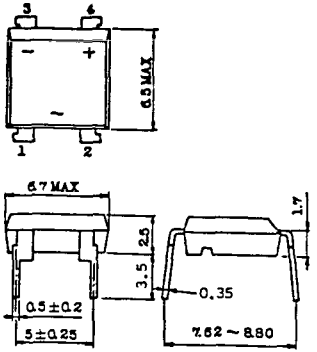
TT-12



ゲート端子詳細

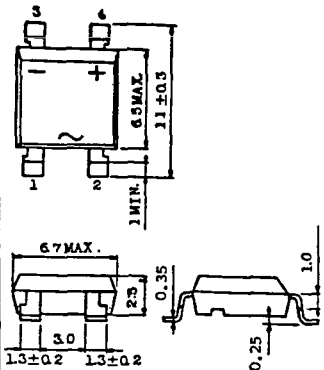
- ① ゲート (フーストン端子 #187)
- ② T<sub>1</sub> ( " #250)
- ③ T<sub>2</sub> ( " #250)

TT-13



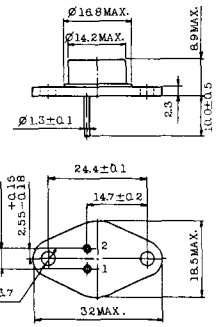
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



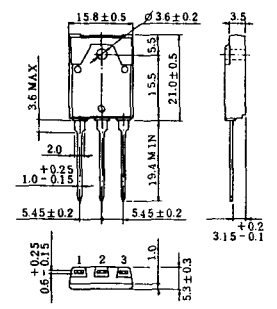
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-15 (13-14A1B)

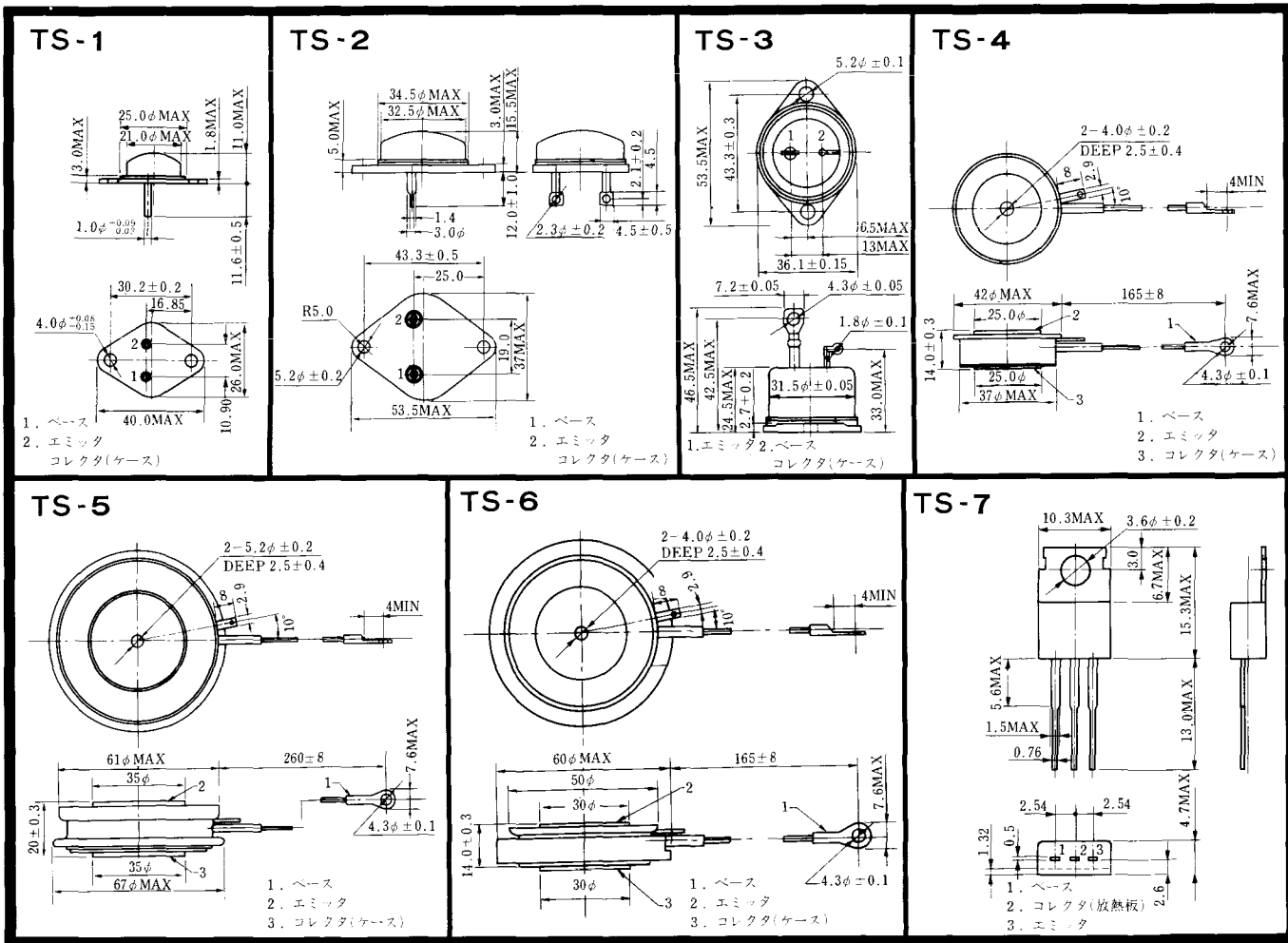


- 1. ゲート
- 2. T<sub>1</sub>
- T<sub>2</sub> (ケース)

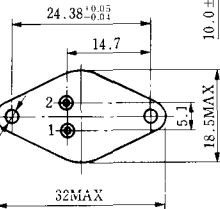
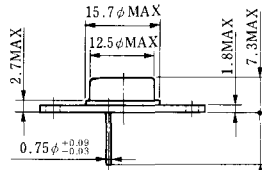
TT-16 (13-16A1A)



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

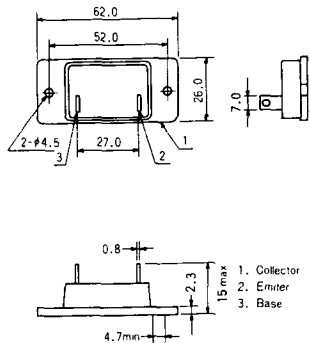


# TS-8

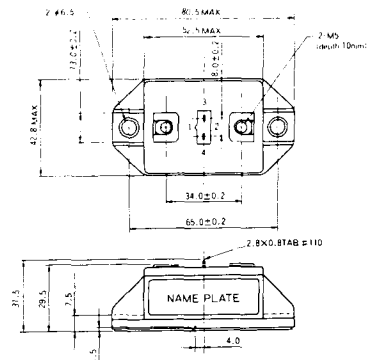


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

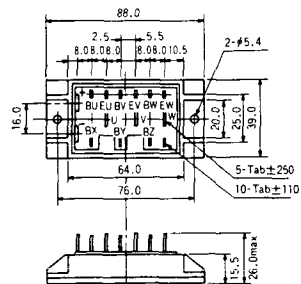
### S-62A1A



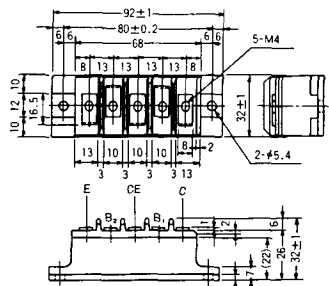
### S-80A1A



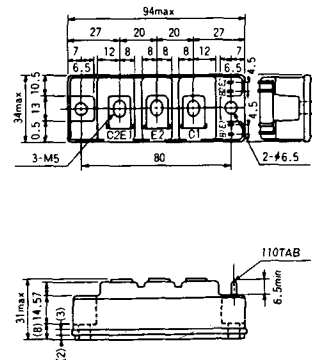
### S-88D1A



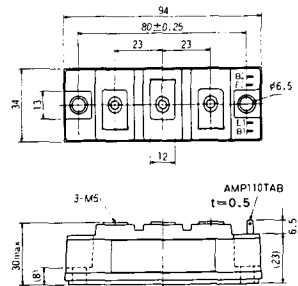
### S-92B1A



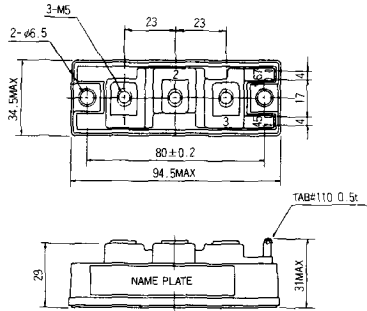
### S-94B1A



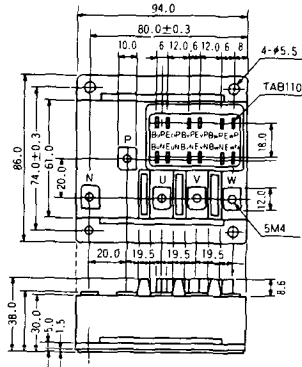
### S-94B1B



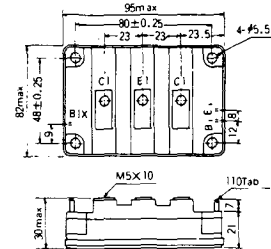
S-94B2A



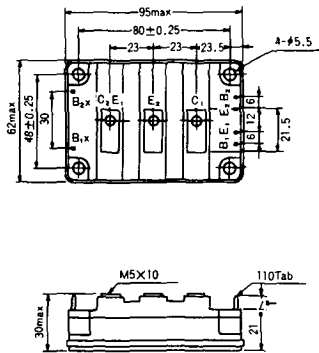
S-94D1A



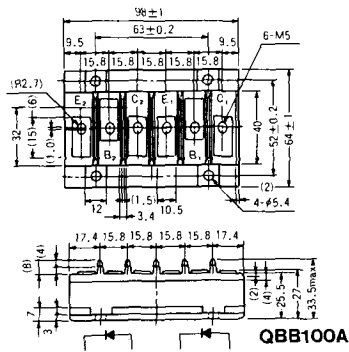
S-95A1A



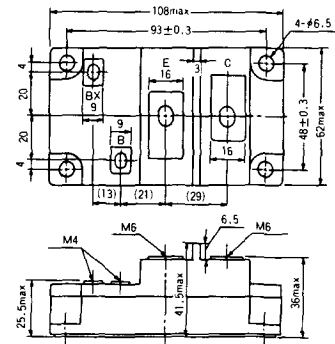
S-95B1A



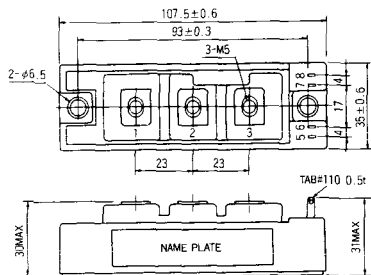
S-98B1B



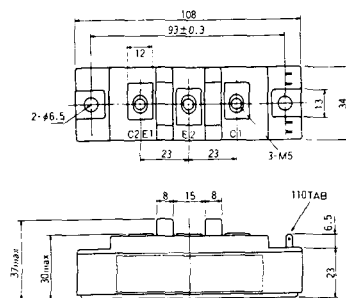
S-108A2A



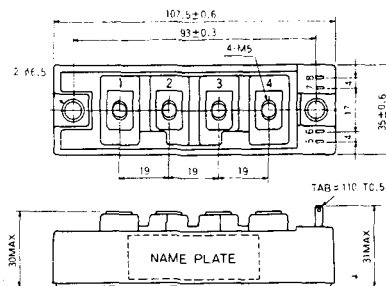
### S-108B1A



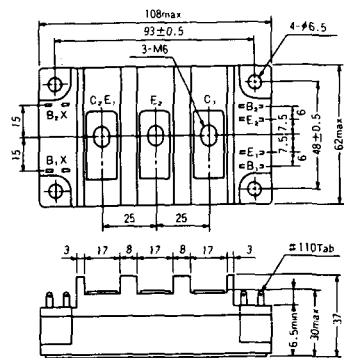
### S-108B1B



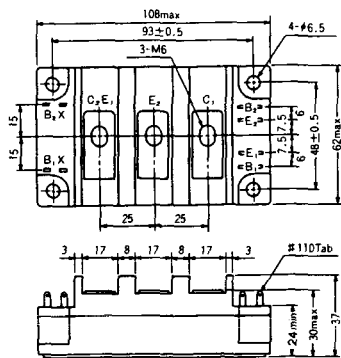
### S-108B1C



### S-108B2A

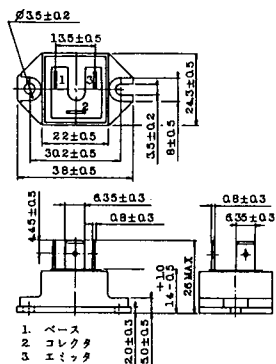


### S-108B2B

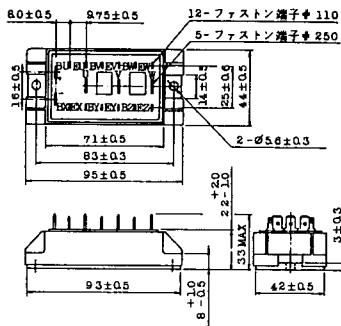




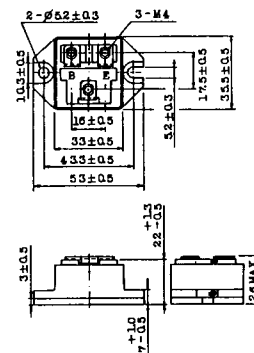
### 2-22B1A



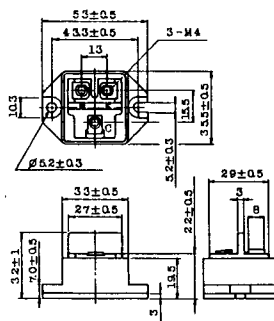
### 2-27A4A



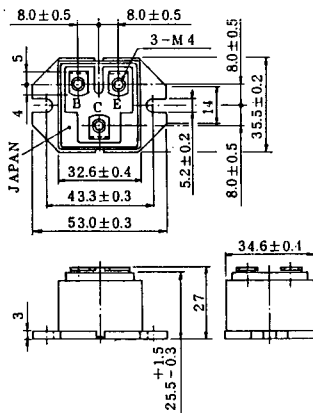
### 2-33C1A



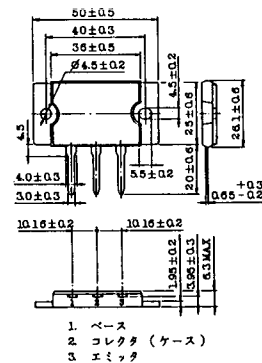
### 2-33D1A



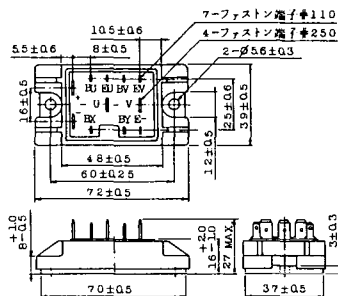
### 2-33F1A



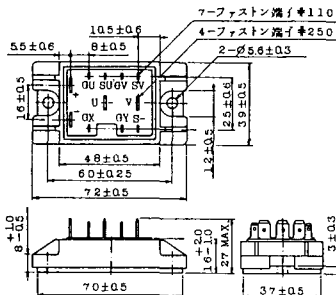
### 2-37A1A



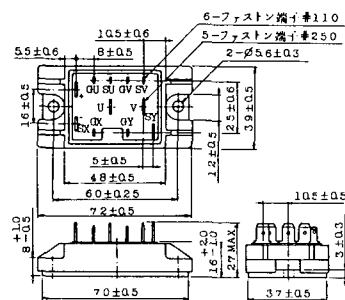
2-48A3A



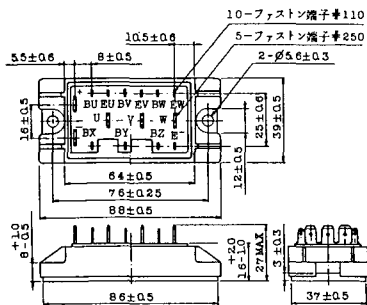
2-48A3B



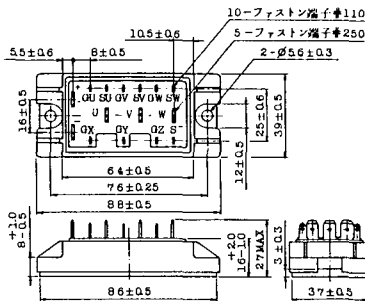
2-48A4A



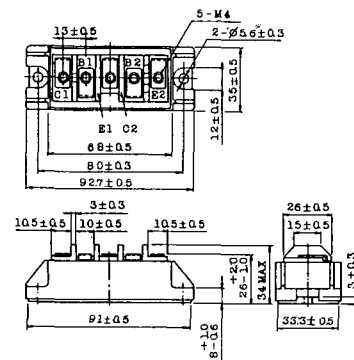
2-64A2A



2-64A2B



2-68A2A

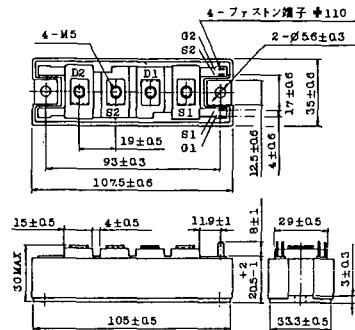




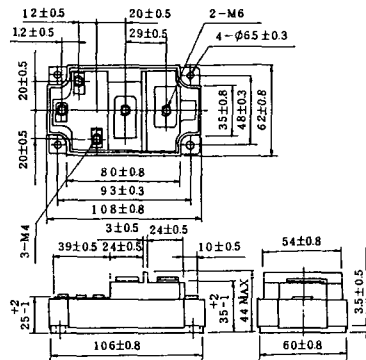




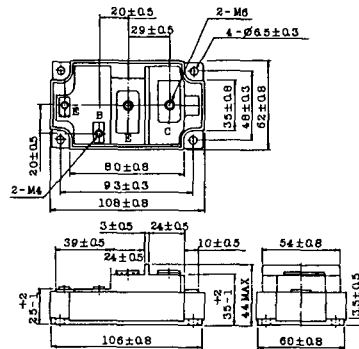
### 2-108B1A



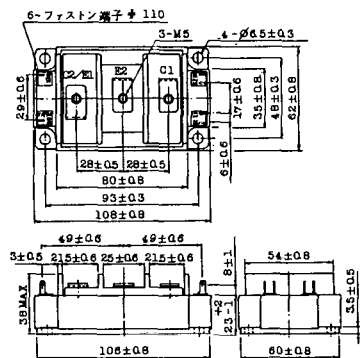
### 2-109A3A



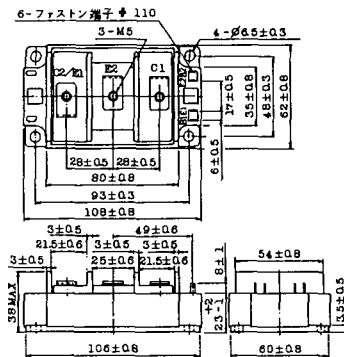
### 2-109A4A



### 2-109B3A

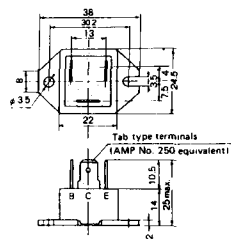


### 2-109B4A

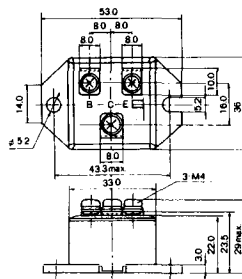




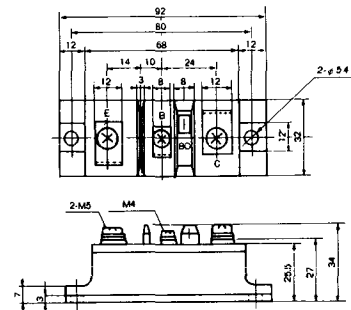
M-101



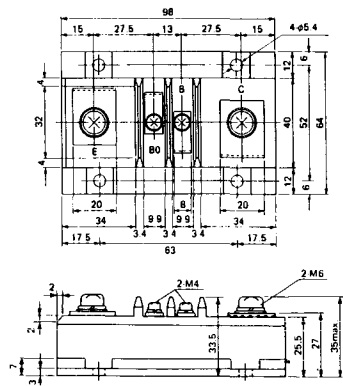
M-102



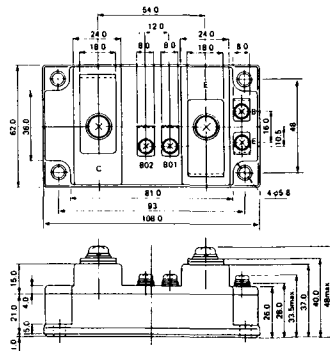
M-103



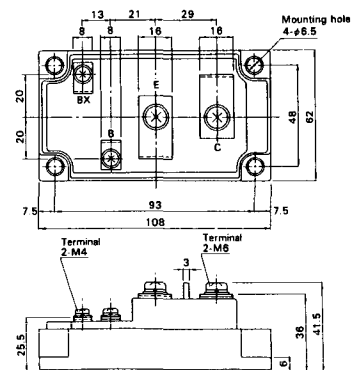
M-104



M-105

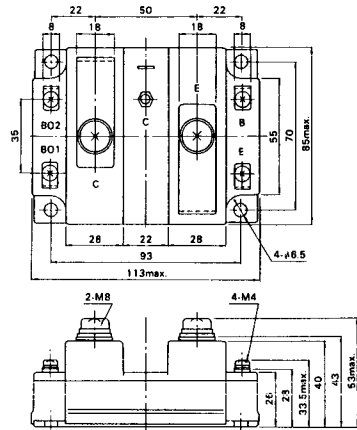


M-106

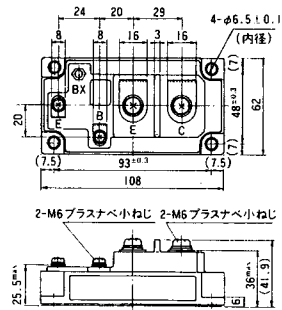




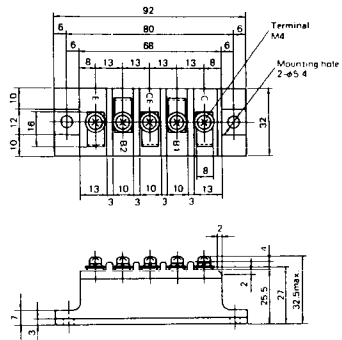
### M-107



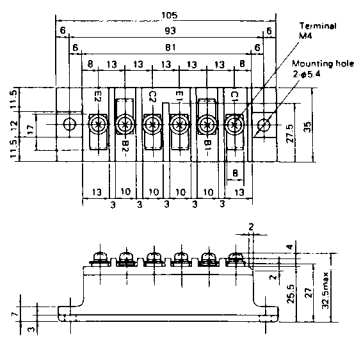
### M-116



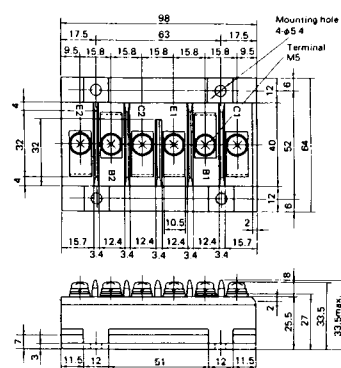
### M-201



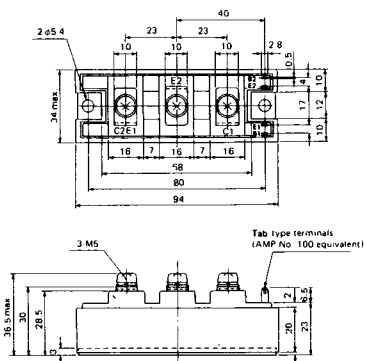
### M-202



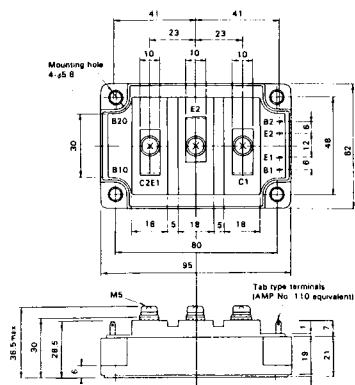
### M-203



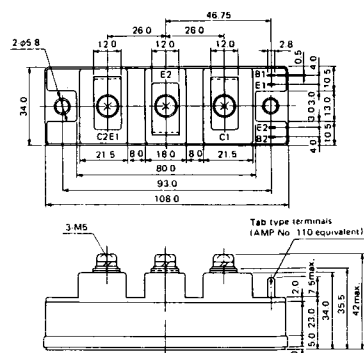
### M-204



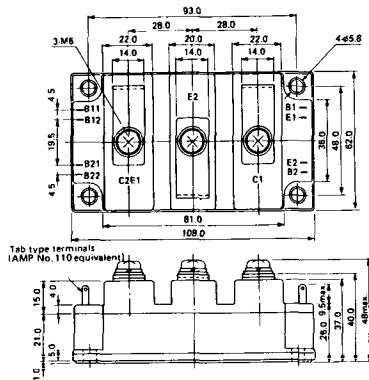
### M-205



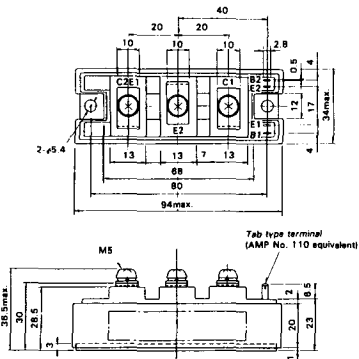
### M-206



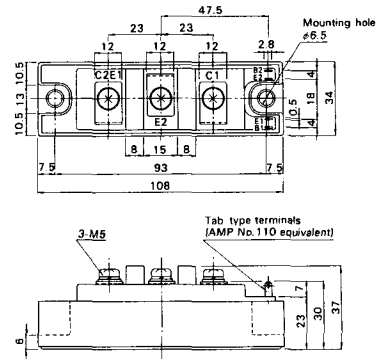
M-207



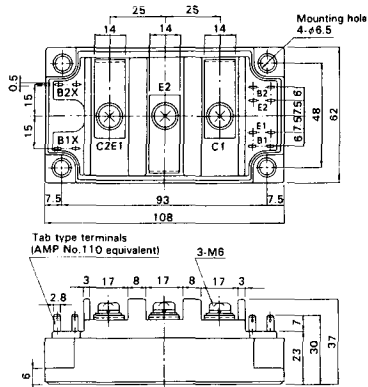
M-208



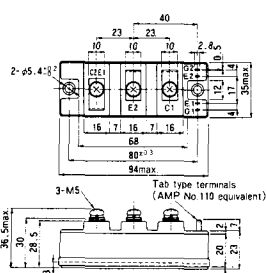
M-209



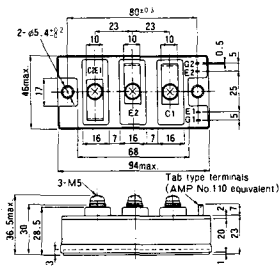
M-210



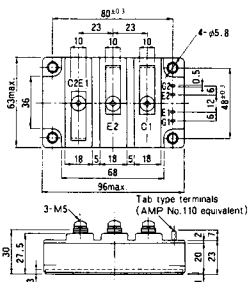
M-211



M-212

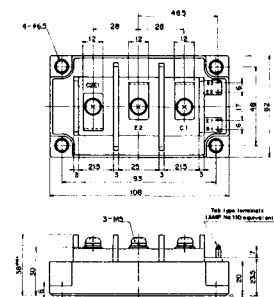


M-213

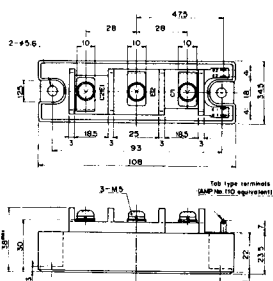


M-214

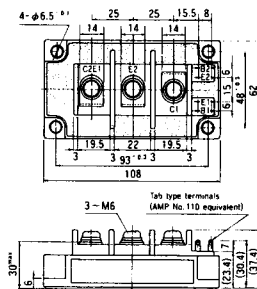
M-215



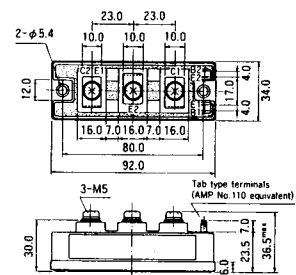
M-216



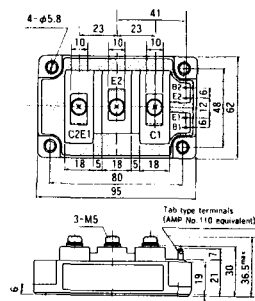
M-217



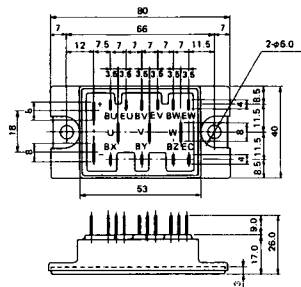
M-218



M-219



M-601



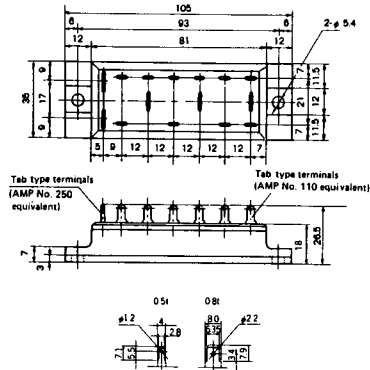
Tab type terminals  
(AMP No. 110 equivalent)



Tab type terminals  
(AMP No. 250 equivalent)



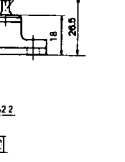
M-602



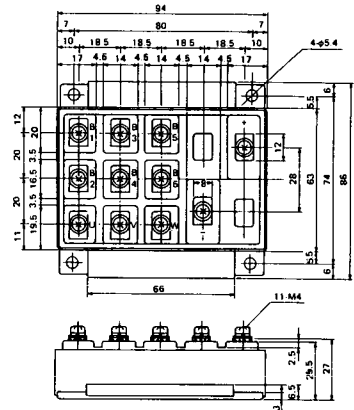
Tab type terminals  
(AMP No. 250 equivalent)



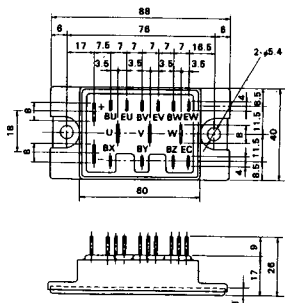
Tab type terminals  
(AMP No. 110 equivalent)



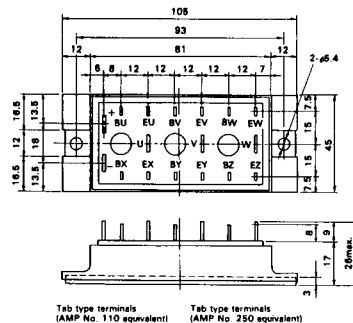
M-603



M-604



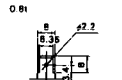
M-605



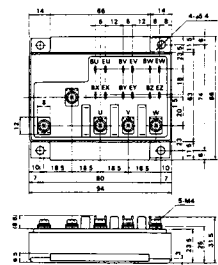
Tab type terminals  
(AMP No. 110 equivalent)



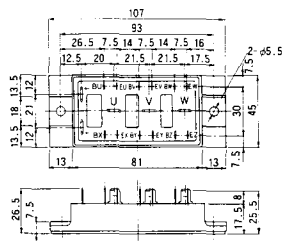
Tab type terminals  
(AMP No. 250 equivalent)



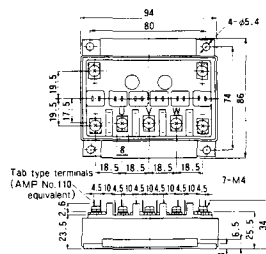
M-606



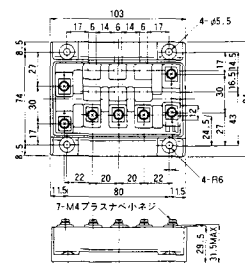
M-607



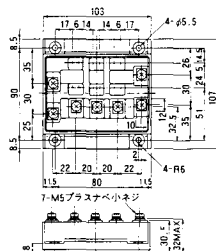
M-608



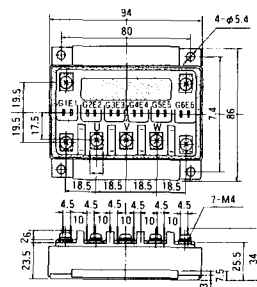
M-609



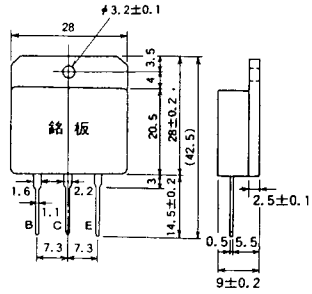
M-610



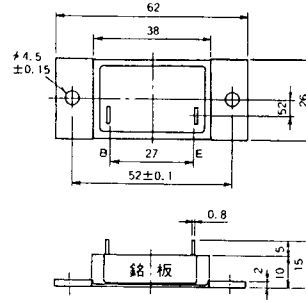
M-616



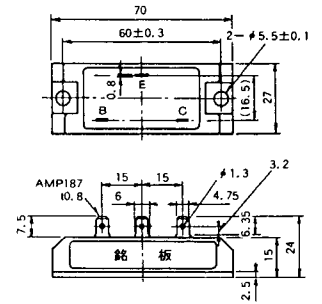
**M-1A1A**



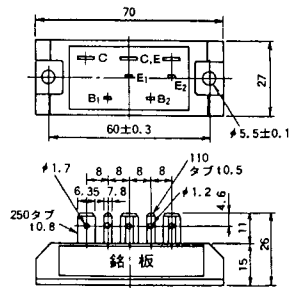
**M-2A1A**



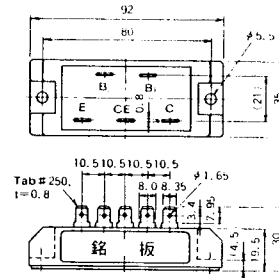
**M-2B1A**



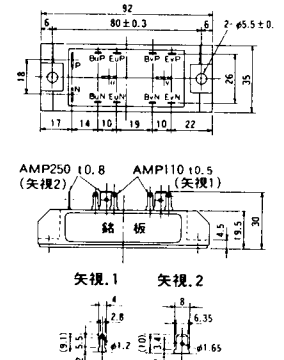
**M-2B2A**



**M-2C2A**

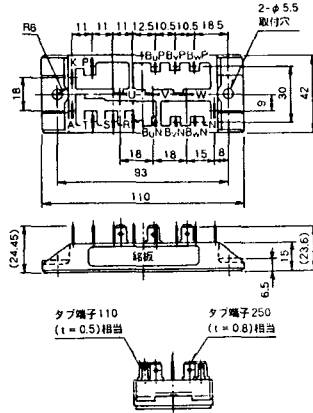


**M-2D4A**

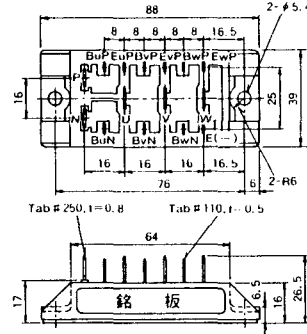




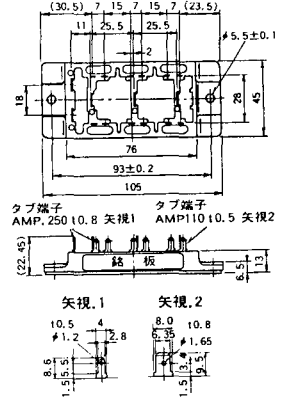
### M-2E6A



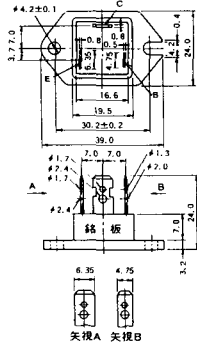
### M-2F6A



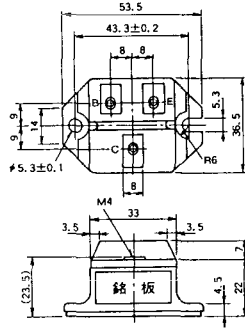
### M-2G6A



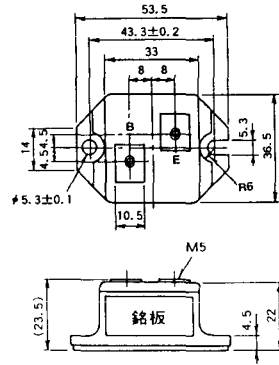
### M-3A1A



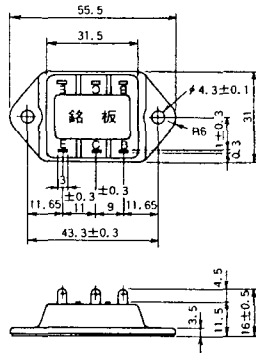
### M-3B1A



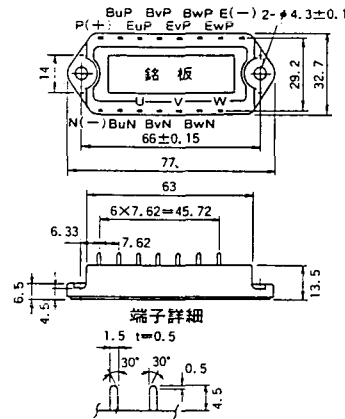
### M-3B1B



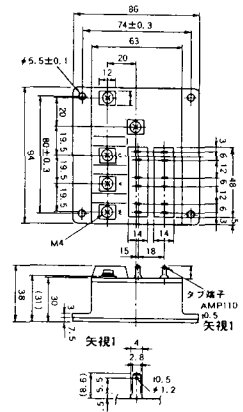
M-3C1A



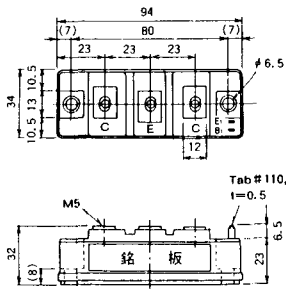
M-3D6A



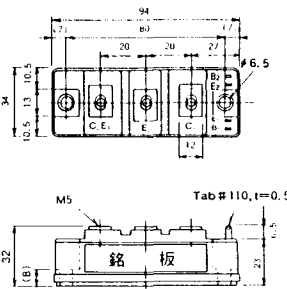
M-3E6A



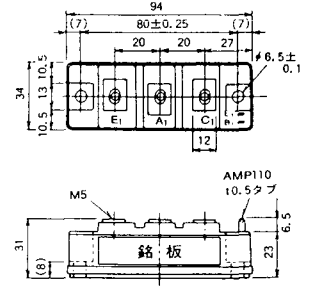
M-4A1A



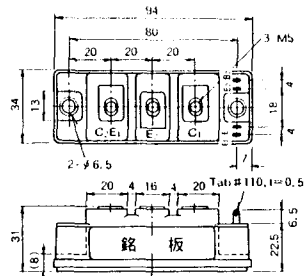
M-4A2A



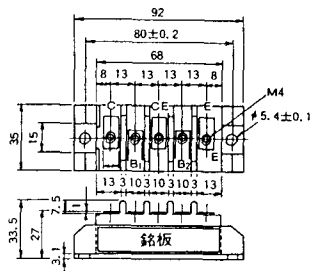
M-4A1B



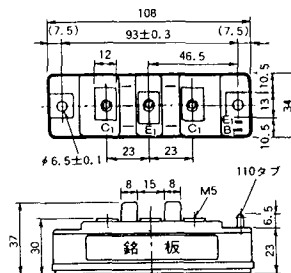
M-4A2B



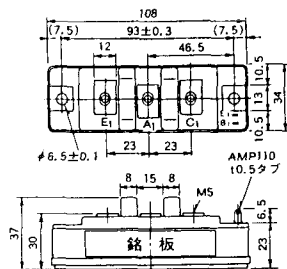
M-4B2A



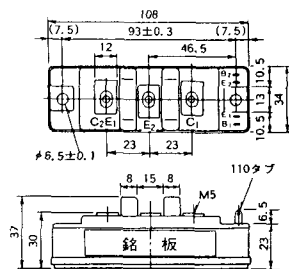
M-5A1A



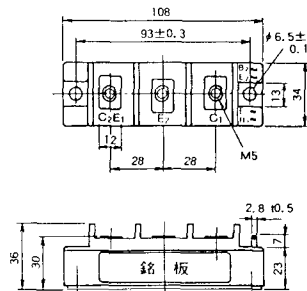
M-5A1B



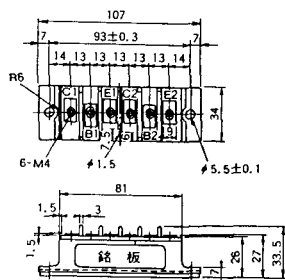
M-5A2A



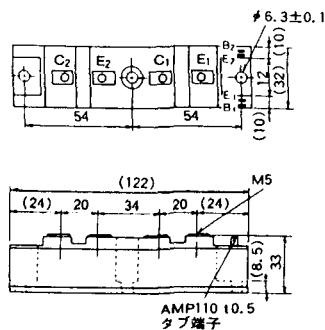
M-5B2A



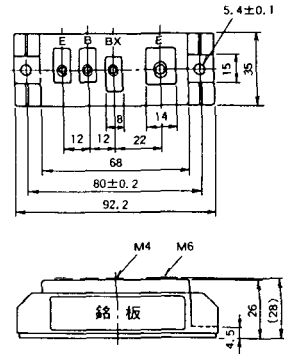
M-5C2A



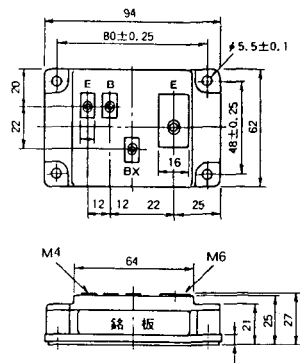
M-5D2A



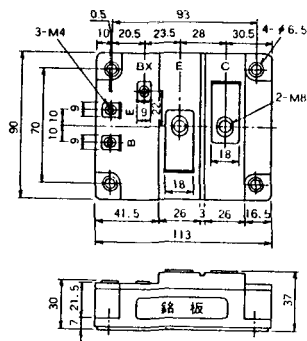
M-6A1A



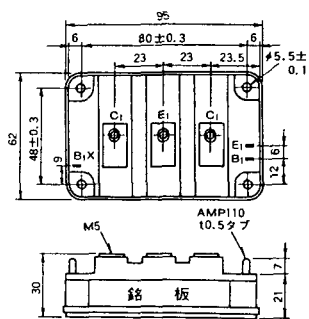
M-7A1A



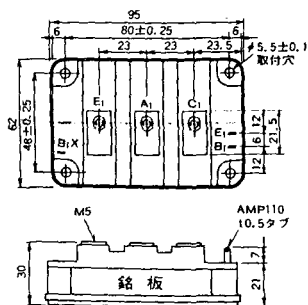
M-7B1A



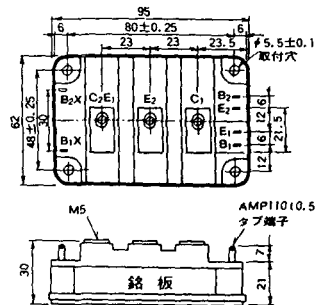
M-8A1A



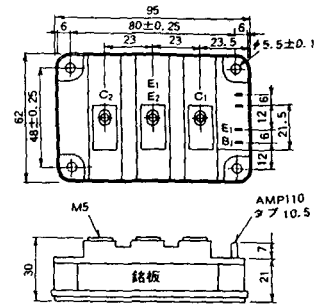
M-8A1B



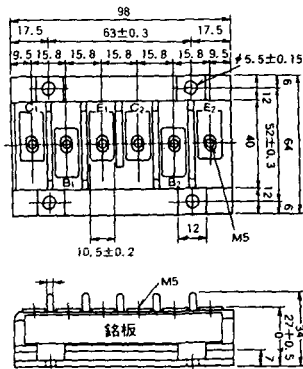
M-8A2A



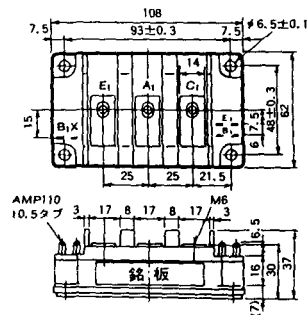
M-8A2B



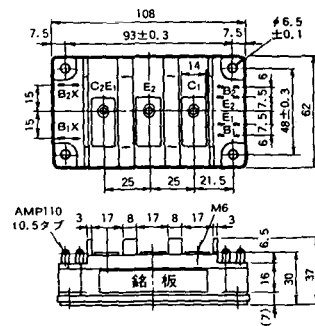
M-8B2A



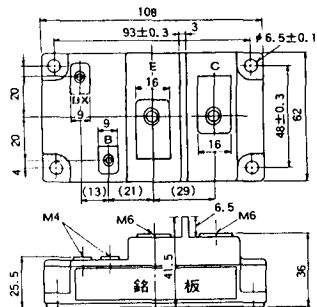
M-9A1A



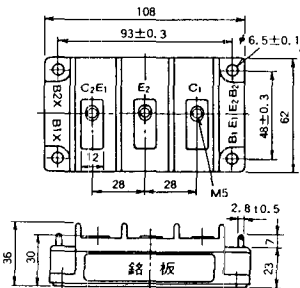
M-9A2A



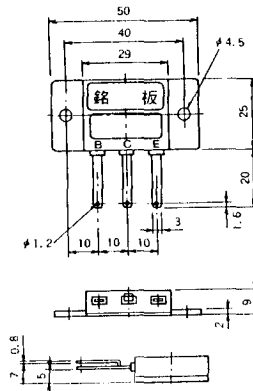
# M-9B1A



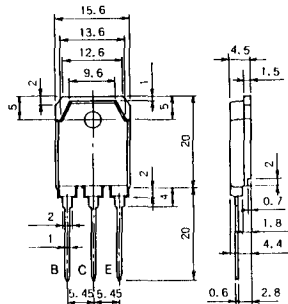
# M-9C2A



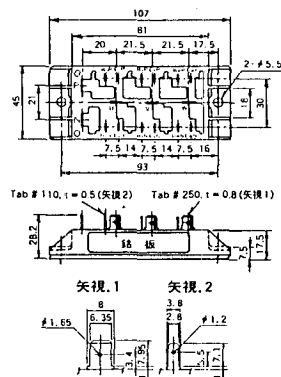
# M-1A1B



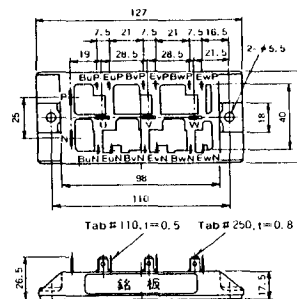
# M-1A1C



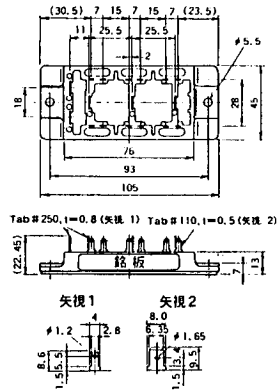
# M-2E6B



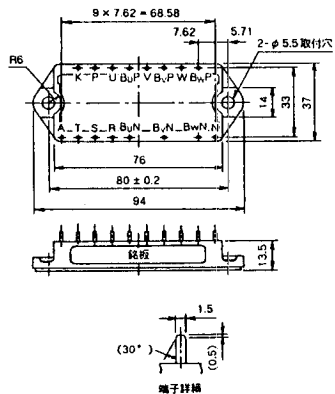
# M-2E6C



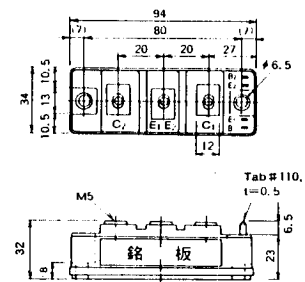
### M-2G6B



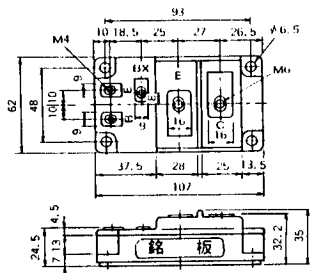
### M-3D6B



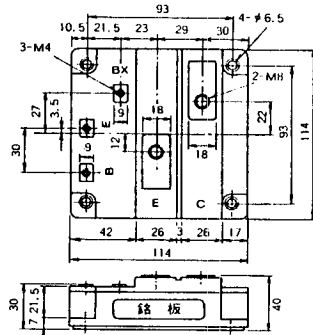
### M-4A2C



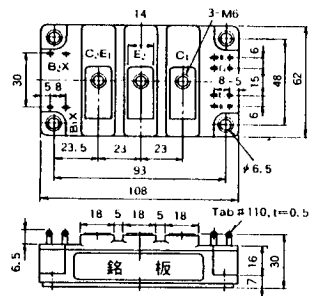
### M-7A1B



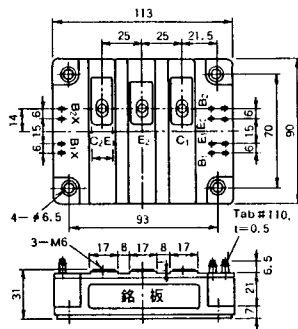
### M-7C1A



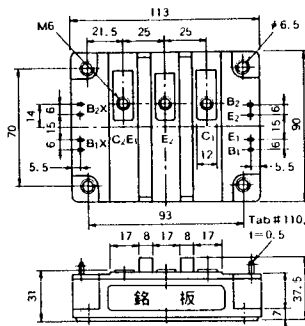
### M-8A2C



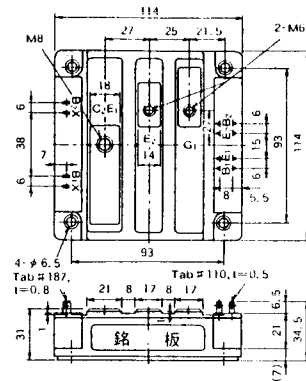
M-10A2A



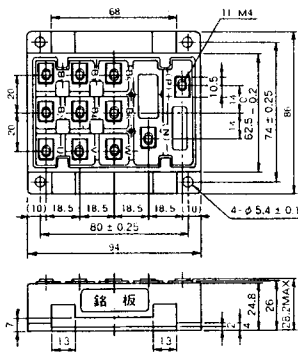
M-10A2B



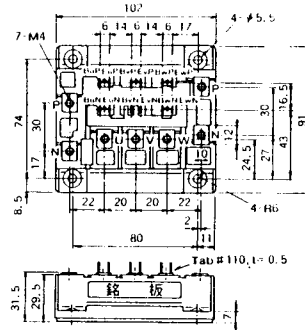
M-11A2A



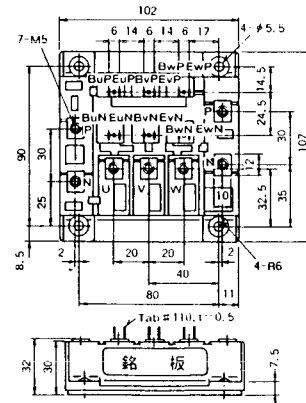
M-12A6A



M-12B6A

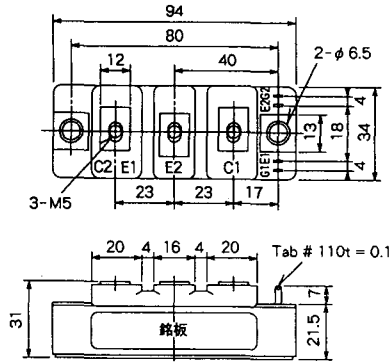


M-12B6B

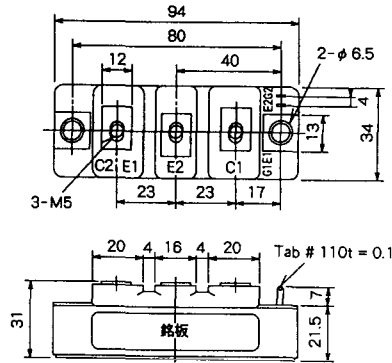




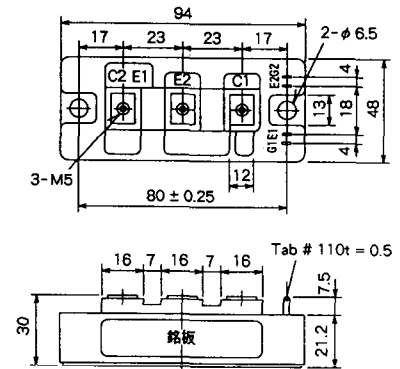
M-4A2D



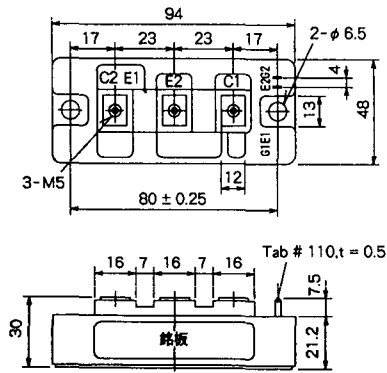
M-4A2E



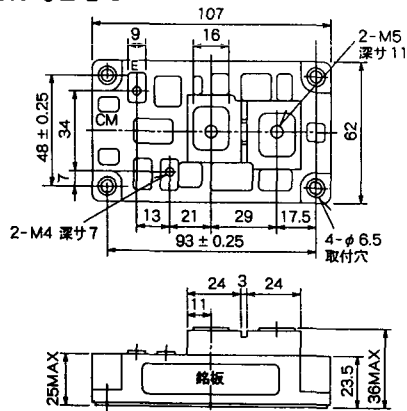
M-4C2A



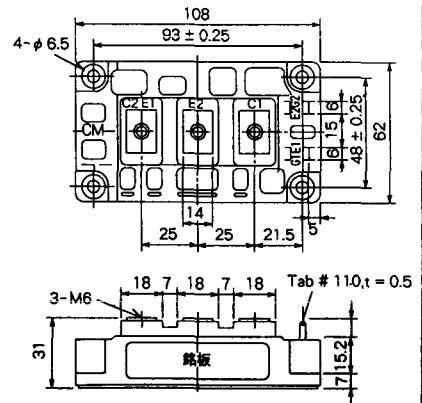
M-4C2B



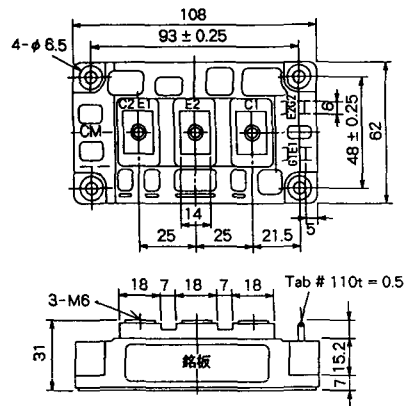
M-9B1C



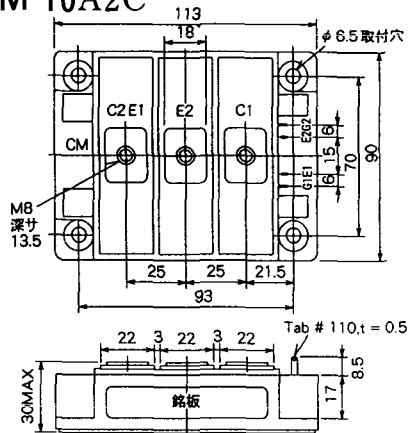
M-9D2A



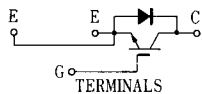
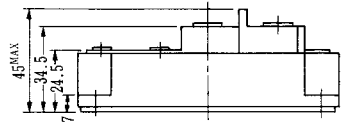
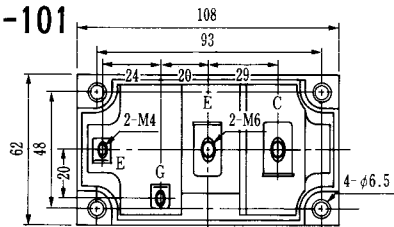
M-9D2B



M-10A2C



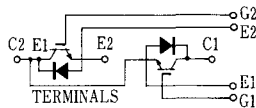
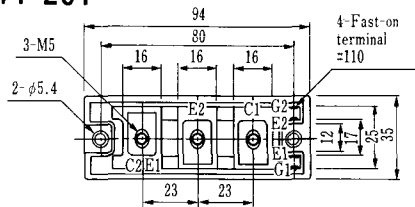
H-101



Weight :480g

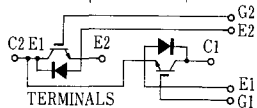
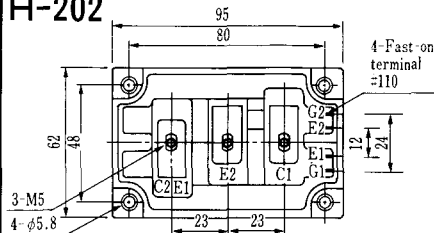
TERMINALS

### H-201



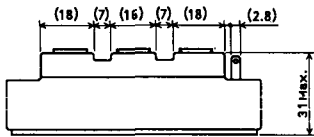
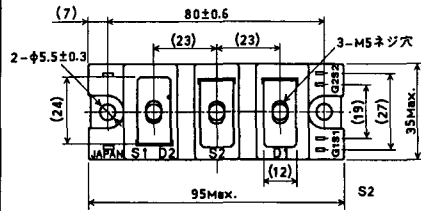
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

