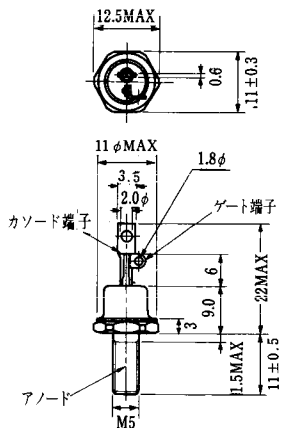


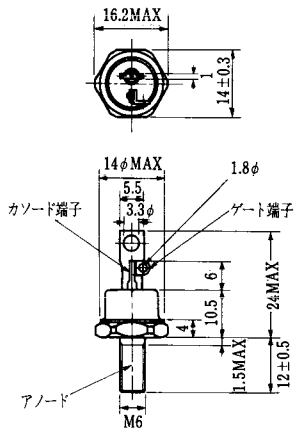
SG1400EX21			■外形図番号 T-35 (13-100D1A)					
○ピーク繰返しオフ電圧 2500V, 実効オン電流 700A								
■最大定格			*1 スナバ回路, $R_s=20\Omega$ , $C_s=2\mu F$		■電気的特性			
					*2 $R_{GK}=20\Omega$			
記号	SG1400EX21	単位	記号	測定条件	Min	Typ	Max	単位
$V_{RRM}$	500	V	$I_{RRM}$	$T_J=115^\circ C$ , $V_D=V_{RRM}$ *2			50	mA
$V_{DRM}$	2500	V	$I_{DRM}$	$T_J=115^\circ C$ , $V_D=V_{DRM}$ *2			50	mA
$I_{TQRM}$	1400 *1	A	$V_{TM}$	$T_c=25^\circ C$ , $I_{TM}=1400A$			2.62	V
$I_{T(RMS)}$	700	A	$V_{GT}$	$T_c=25^\circ C$ , $V_D=12V$ ,		0.7	1.5	V
$I_{TSM}$	14000/15400 (50Hz/60Hz, 正弦半波1サイクル波高値)	A	$I_{GT}$	$R_L=0.5\Omega$ *2		0.5	1.5	A
$I^2t$		A <sup>2</sup> S	$V_{GD}$	$T_c=115^\circ C$ , $V_D=\frac{1}{2}V_{DRM}$ *2		0.3		V
$di/dt$	250 ( $V_D=\frac{1}{2}V_{DRM}$ , $I_G=20A$ , $t_r\leq 1\mu s$ , $f=50Hz$ )	A/ $\mu s$	$I_{GD}$			10		mA
$P_{GFM}$	20	W	$V_{GQ}$	$I_T=1400A$ , $V_D=\frac{2}{3}V_{DRM}$		35		V
$P_{GRM}$	10000	W	$I_{GQ}$	$dv/dt=200V/\mu s$ , $T_c=110^\circ C$		300		A
$P_{GFAV}$	4	W	$dv/dt$	$T_J=115^\circ C$ , $V_D=\frac{2}{3}V_{DRM}$ *2	500			V/ $\mu s$
$V_{GRM}$	12	V	$I_H$	$T_c=25^\circ C$ , $R_L=0.5\Omega$ *2			75	A
$I_{GFM}$	20	A	$t_r$	$T_c=110^\circ C$ , $I_{TM}=1400A$			20	$\mu s$
$T_J$	115	$^\circ C$	$I_{GK}$	$I_{GK}=350A$ , $V_D=\frac{2}{3}V_{DRM}$			25	$\mu s$
$T_{ME}$	-40~115	$^\circ C$	$R_{th}$	$dig/dt=30A/\mu s$ *1			0.03	$^\circ C/W$
				接合部-フィン間, DC				

SG1500FXF, GXH <sub>2</sub> 1 (VRRM)			■外形図番号 T-48 (13-93C1A)						
■最大定格					■電気的特性				
記号	SG1500FXF21 (VRRM)	SG1500GXH21 (VRRM)	単位	記号	測定条件	Min	Typ	Max	単位
$V_{RRM}$	3000	4000	V	$I_{RRM}$	$T_J=115^\circ C$ , $V_D=V_{RRM}$			80	mA
$V_{DRM}$	3300	4500	V	$I_{DRM}$	$T_J=115^\circ C$ , $V_D=V_{DRM}$ , $R_{GK}=10\Omega$			80	mA
$I_{TQRM}$	1500 ( $V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$ , $C_s=3\mu F$ , $R_s=20\Omega$ , $T_J=115^\circ C$ )		A	$V_{TM}$	$T_c=25^\circ C$ , $I_{TM}=1500A$			4.5	V
$I_{T(RMS)}$	600 ( $T_J=70^\circ C$ )		A	$V_{GT}$	$T_c=25^\circ C$ , $V_D=24V$			1.2	V
$I_{TSM}$	8000/9000 (50Hz/60Hz, 正弦半波1サイクル)		A	$I_{GT}$	$R_L=0.2\Omega$			1500	mA
$I^2t$			A <sup>2</sup> S	$V_{GD}$			0.3		V
$di/dt$	250 ( $I_{GP}=15A$ , $t_r=1\mu s$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{TM}=1500A$ , $f=50Hz$ , $T_J=115^\circ C$ )		A/ $\mu s$	$I_{GD}$	$T_c=115^\circ C$ , $V_D=\frac{1}{2}V_{DRM}$		10		mA
$I_{GFM}$	50 (パルス幅: max. 20 $\mu s$ , duty: max. 20%)		A	$t_r$	$T_c=25^\circ C$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{GP}=15A$			2	$\mu s$
$P_{GFAV}$	14		W	$t_{st}$	$I_{TM}=1500A$ , $di/dt=250A/\mu s$			10	$\mu s$
$I_{G(RMS)}$	60		A	$dv/dt$	$T_J=115^\circ C$ , $V_D=\frac{2}{3}V_{DRM}$ , $V_{GK}=-4V$	900			V/ $\mu s$
$P_{GRM}$	15000 (パルス幅: max. 20 $\mu s$ , duty: max. 2%)		W	$I_H$	$T_c=25^\circ C$ , $R_L=0.2\Omega$			80	A
$V_{GRM}$	15		V	$t_r$	$T_c=110^\circ C$ , $I_{TM}=1500A$			16	$\mu s$
$T_J$	115		$^\circ C$	$I_{GK}$	$V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$			18	$\mu s$
$T_{ME}$	-40~115		$^\circ C$	$t_{ind}$	$C_s=3\mu F$ , $R_s=20\Omega$			180	$\mu s$
				$I_{GR}$	$dig/dt=-35A/\mu s$		350	400	$\mu s$
				$R_{th}$	接合部-フィン間, DC			0.025	$^\circ C/W$

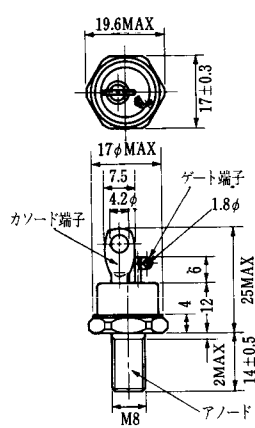
FD-1



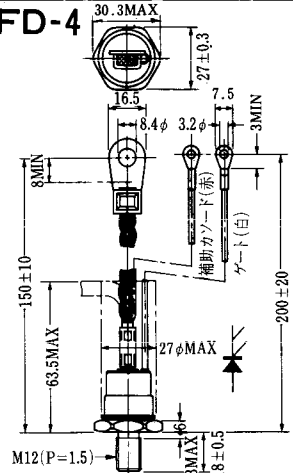
FD-2



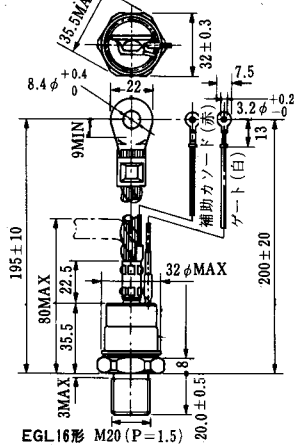
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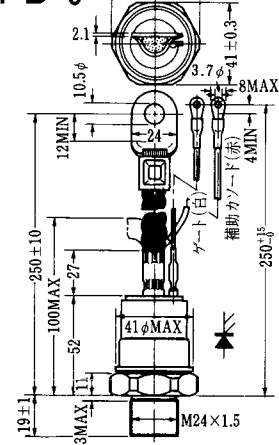
FD-4



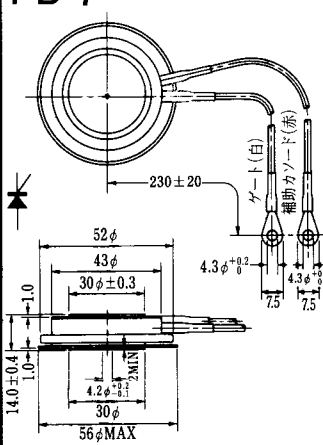
FD-5



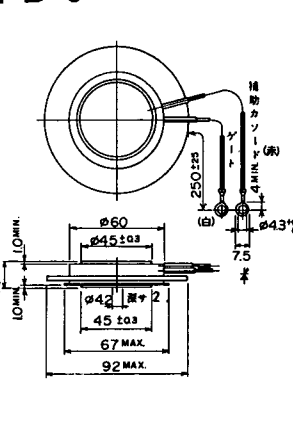
FD-6



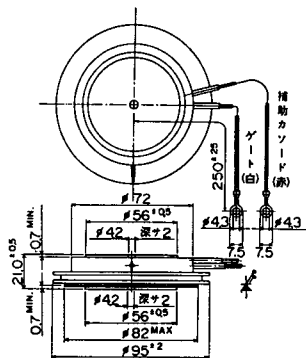
FD-7



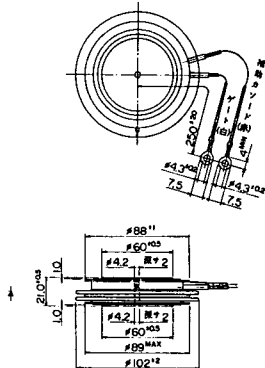
FD-8



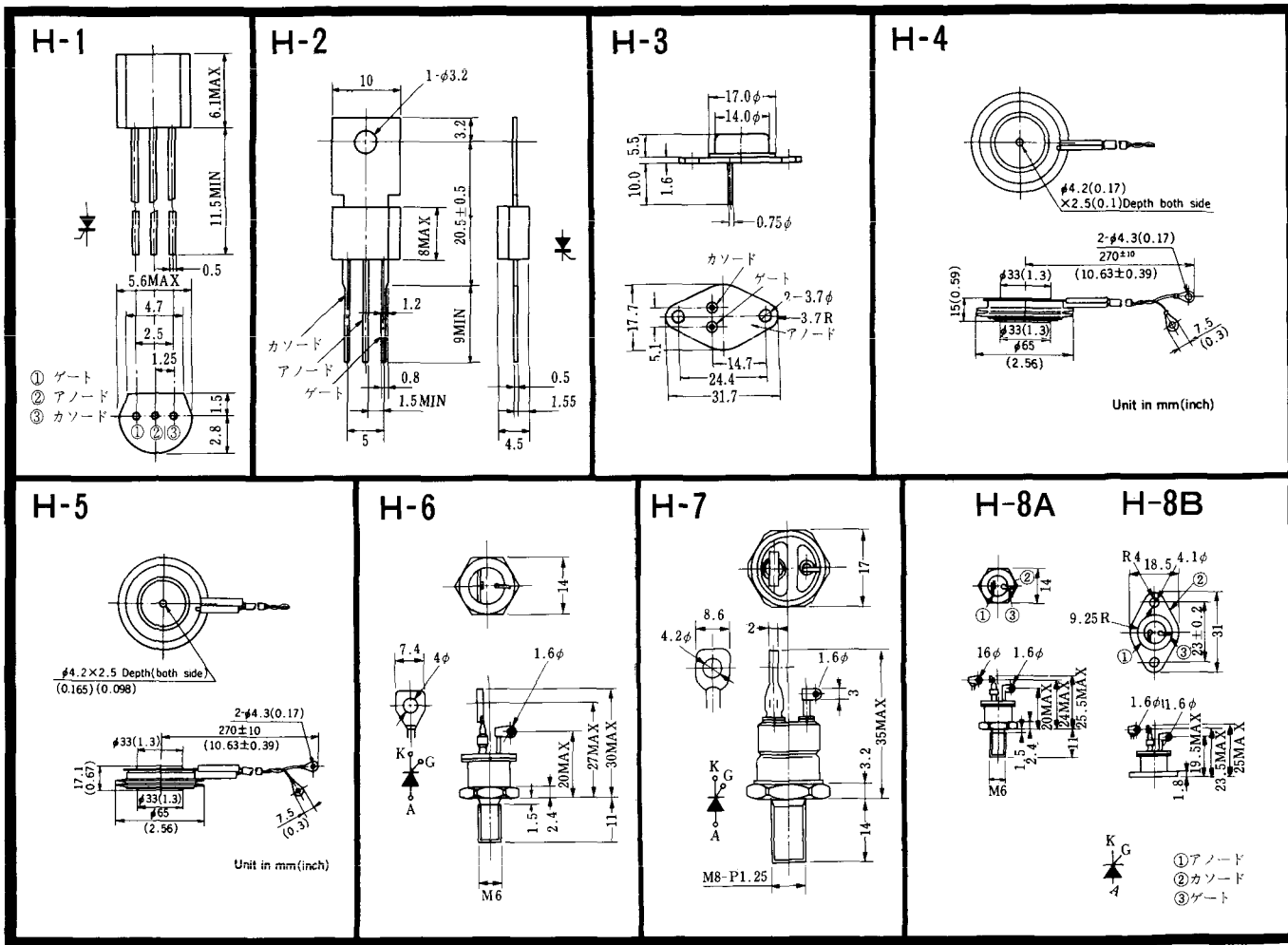
FD-9

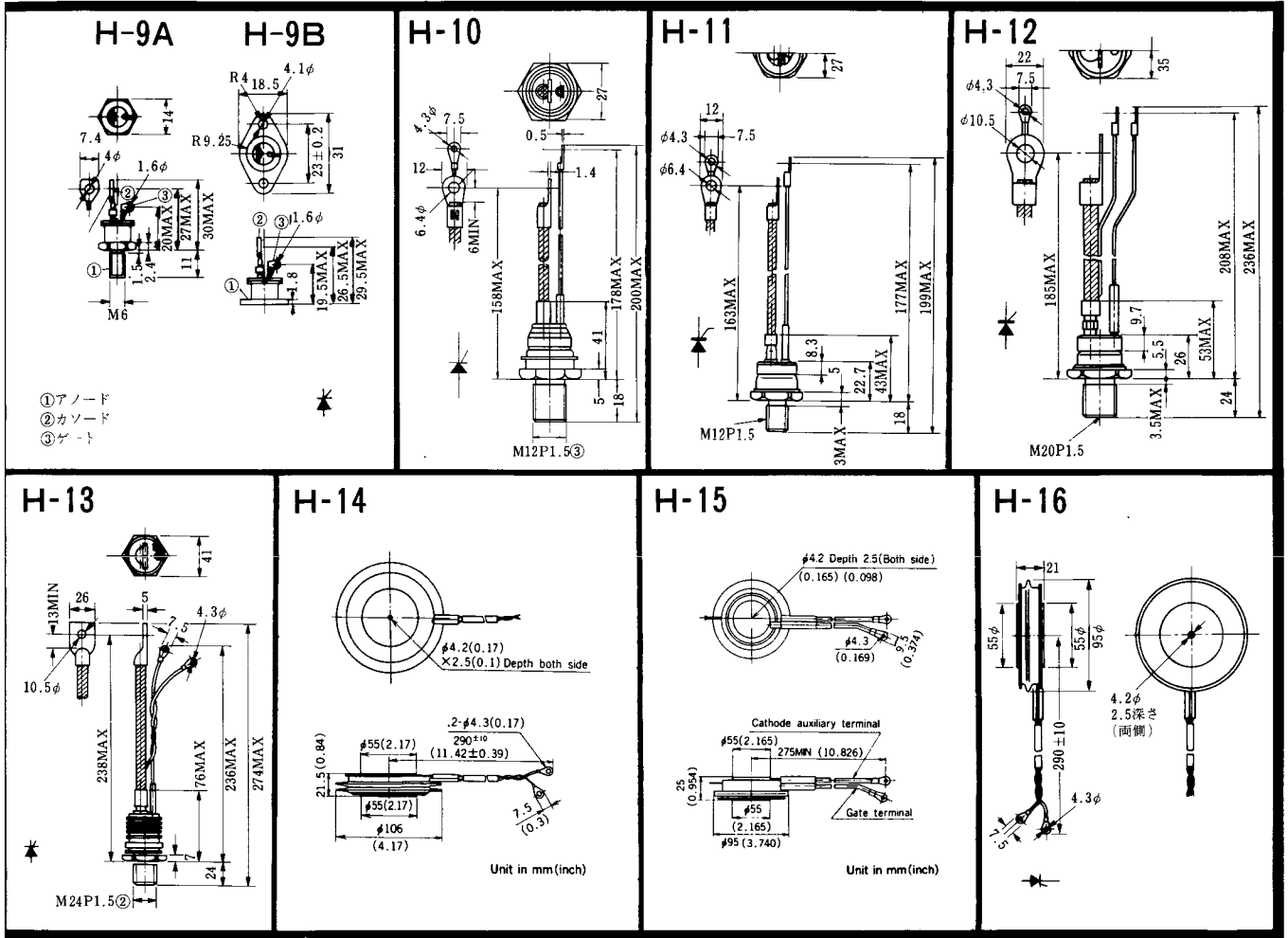


FD-10



FD-12

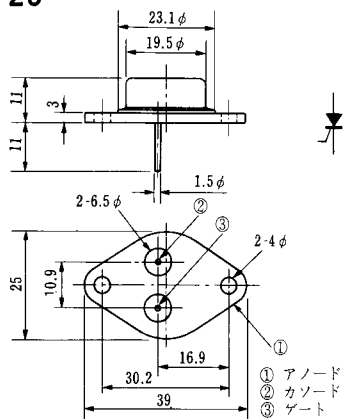




《寸法図単位：mm》

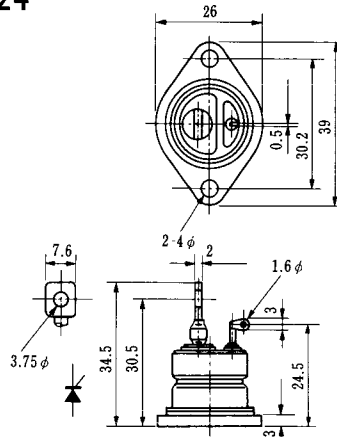


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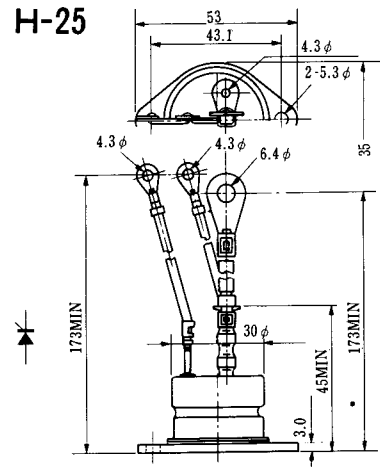


① アノード  
② カソード  
③ ゲート

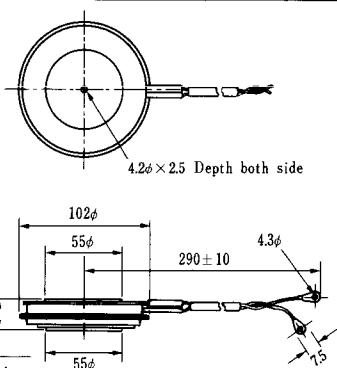
### H-24



### H-25



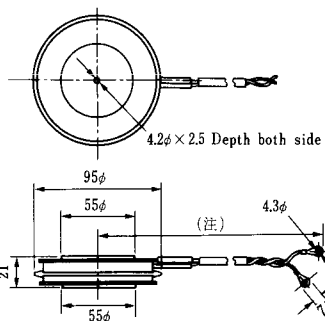
### H-26



Type	Direction of polarity
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CA12	
------	--

### H-27

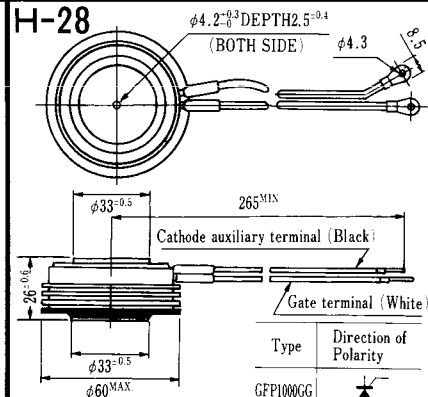


Type	Direction of polarity
------	-----------------------

CF11V	
-------	--

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

### H-28

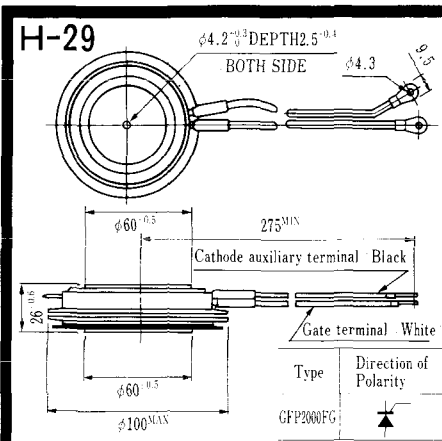


Type	Direction of Polarity
------	-----------------------

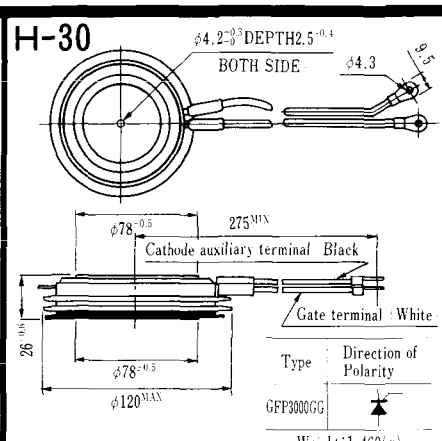
GFP100GG	
----------	--

Weight: 360(g)

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



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

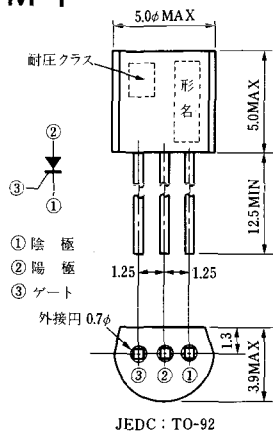


Note: The thickness is a dimension in press at the rated mounting force. Weight: 1,460(g)

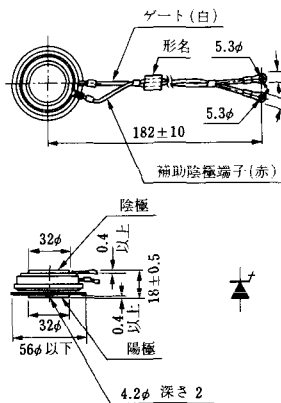




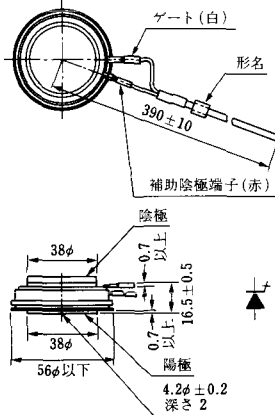
### M-1



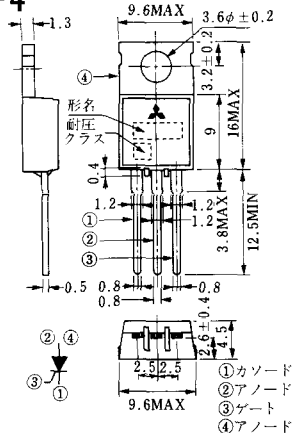
### M-2



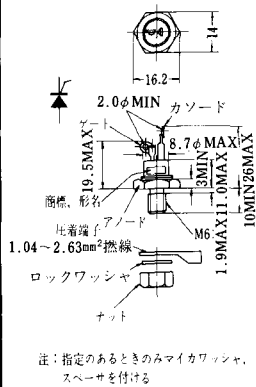
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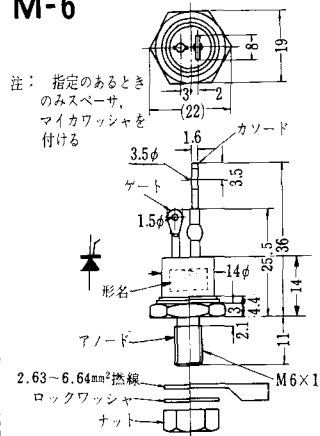
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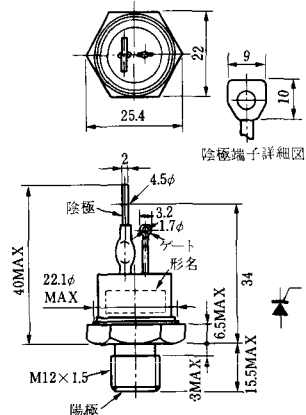
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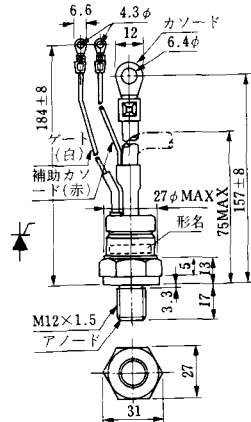
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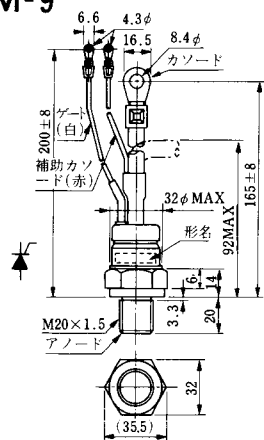
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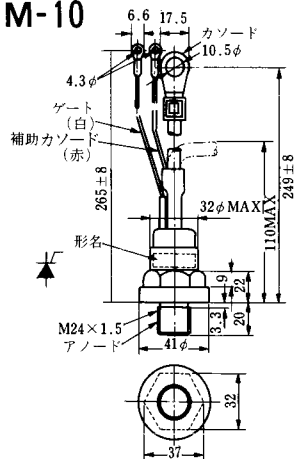
### M-8



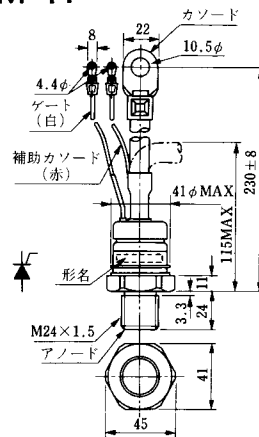
M-9



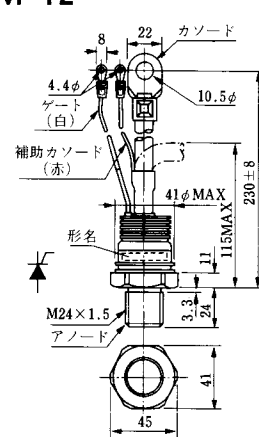
M-10



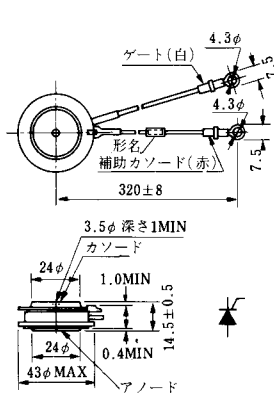
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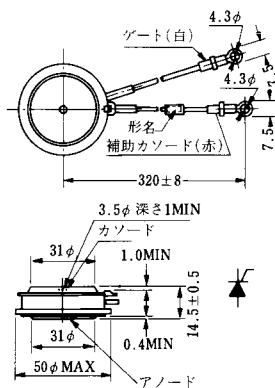
M-12



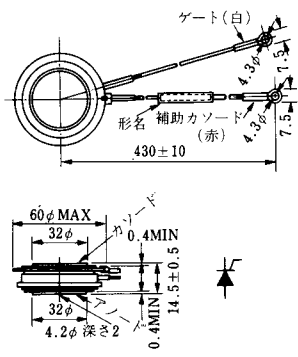
M-13



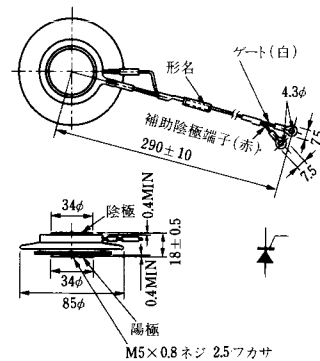
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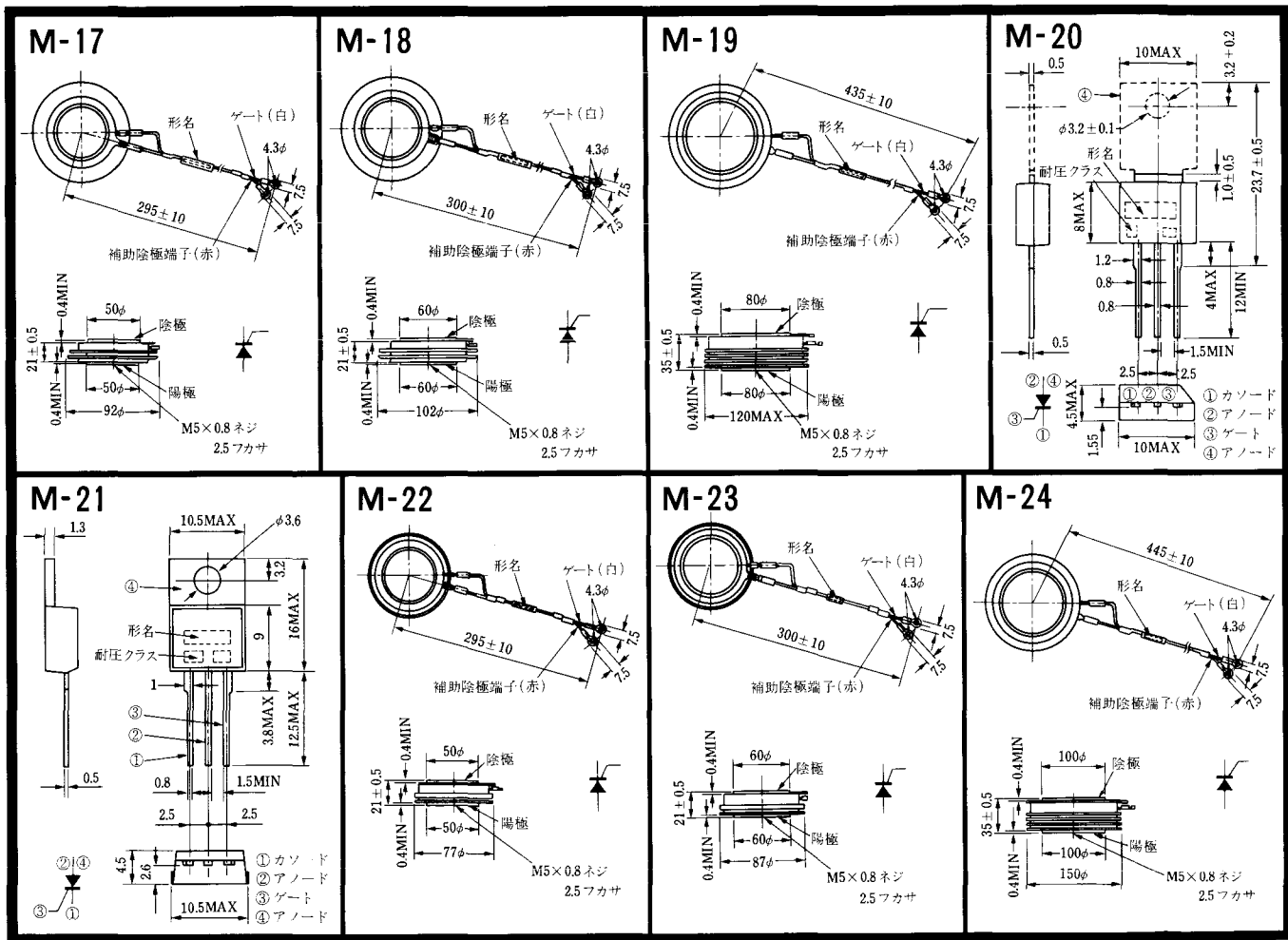


M-15

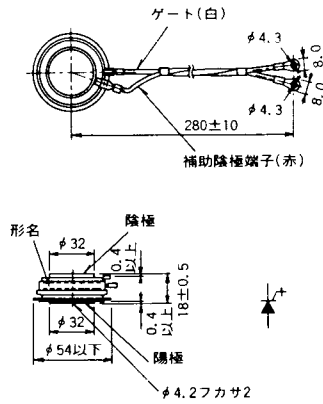


M-16

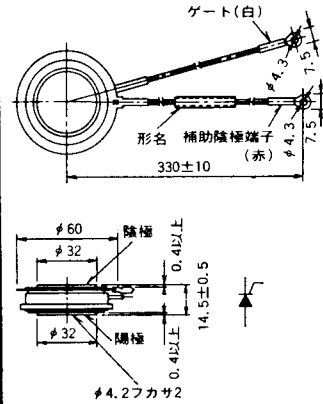




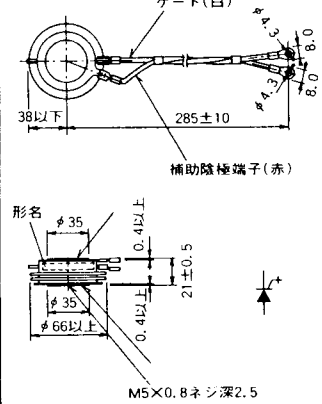
M-25



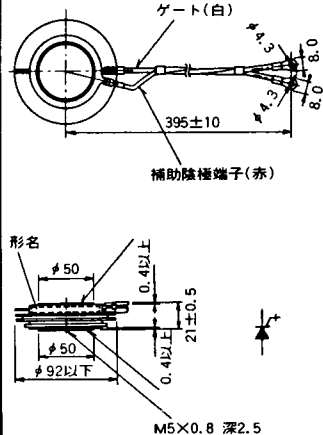
M-26



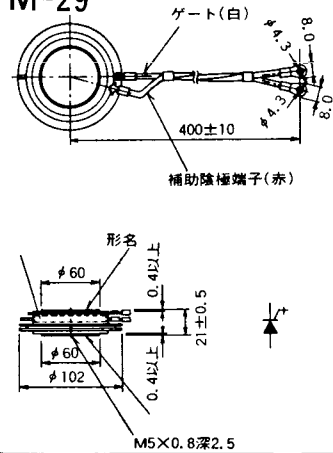
M-27



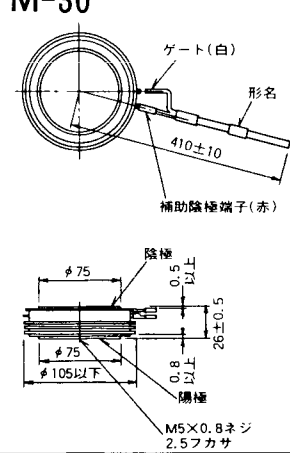
M-28



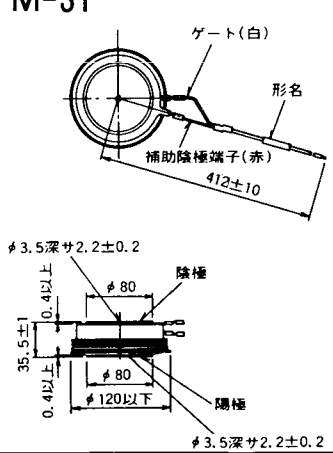
M-29



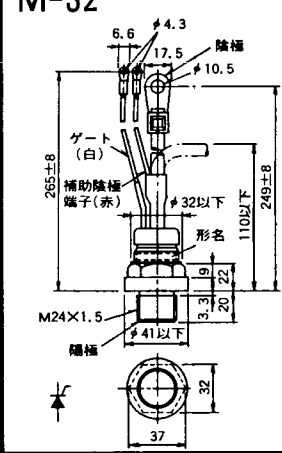
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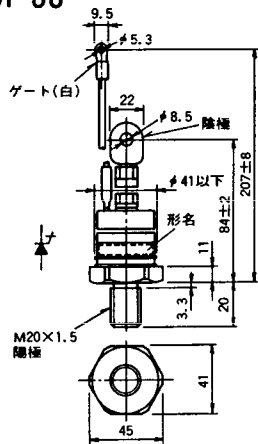
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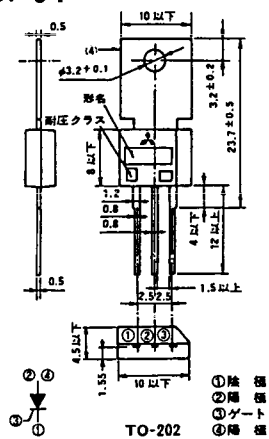
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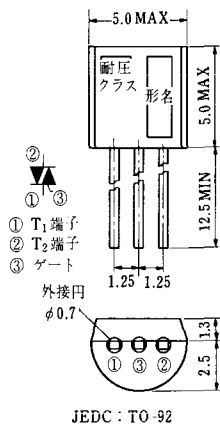
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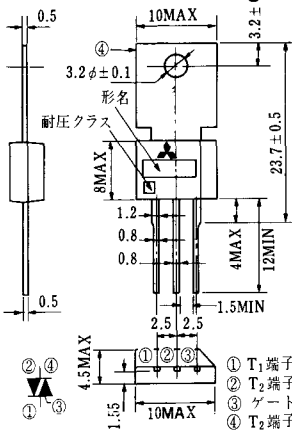
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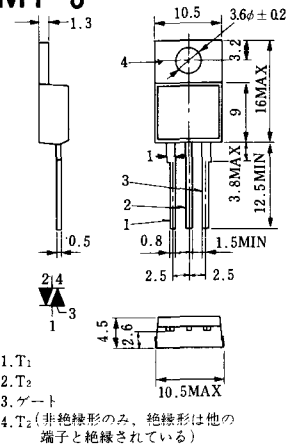
### MT-1



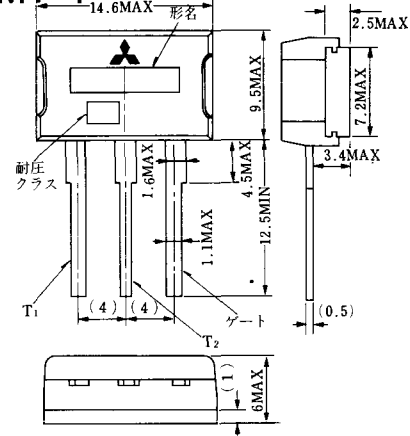
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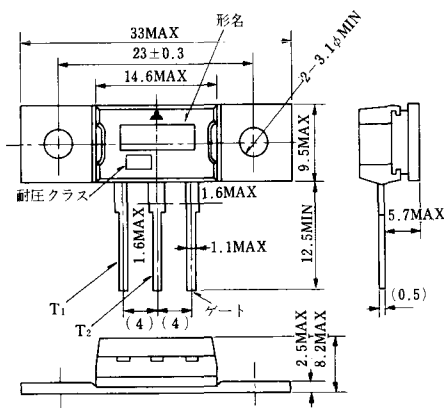
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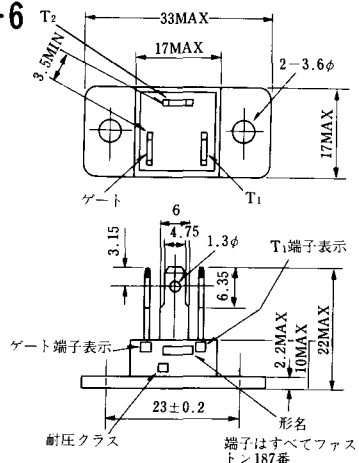
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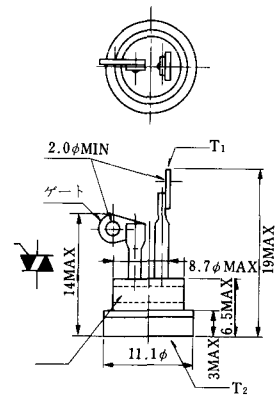
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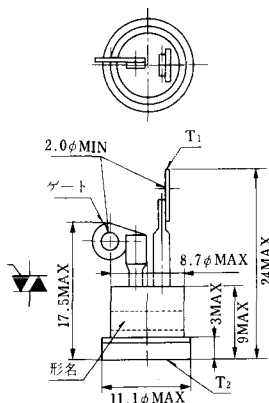
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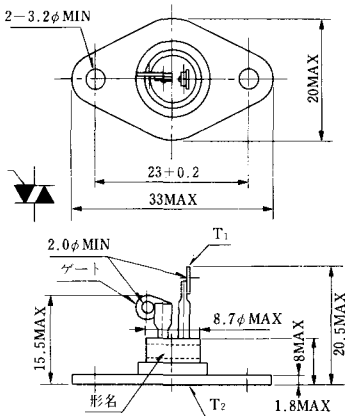
### MT-7



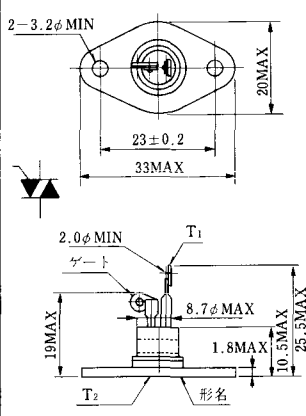
MT-8



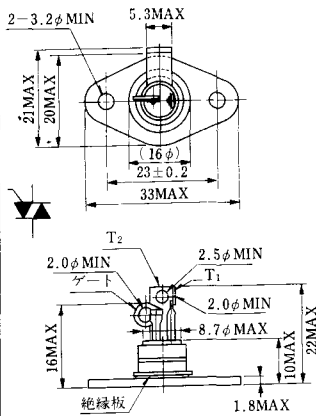
MT-9



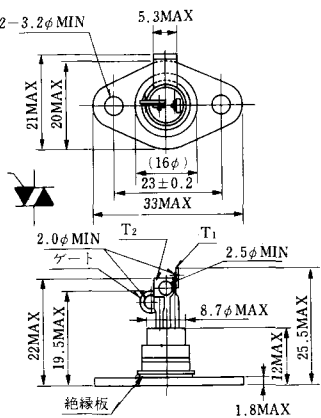
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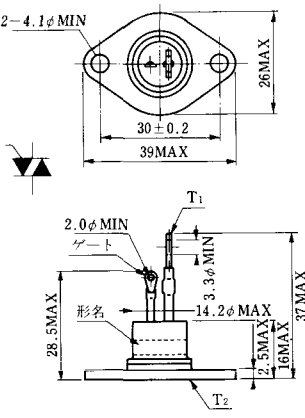
MT-11



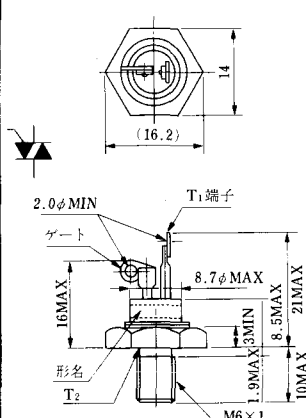
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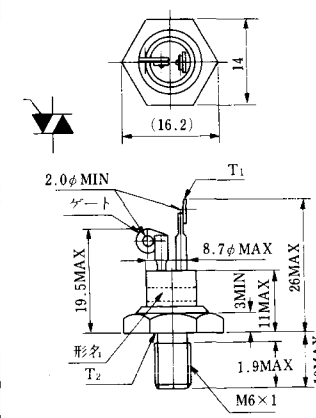
MT-13



MT-14

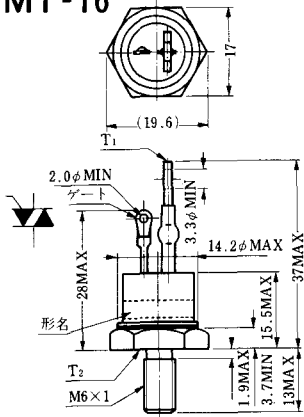


MT-15

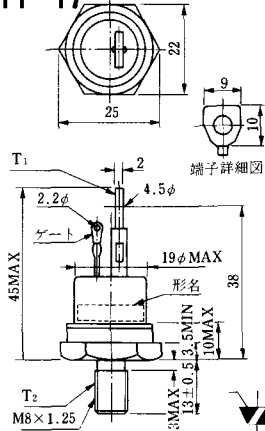




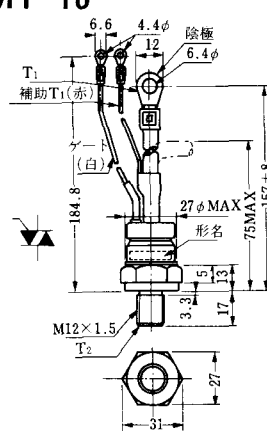
MT-16



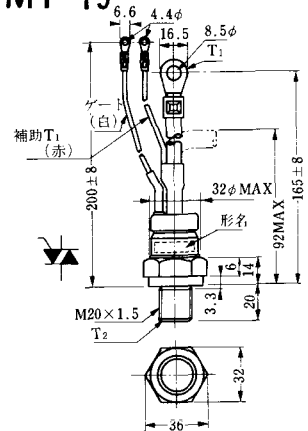
MT-17



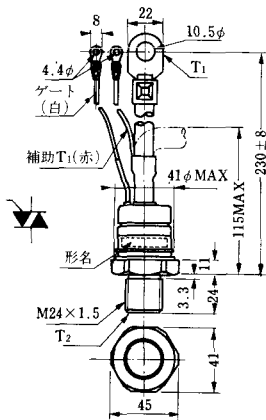
MT-18



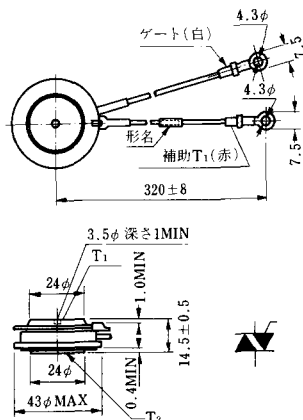
MT-19



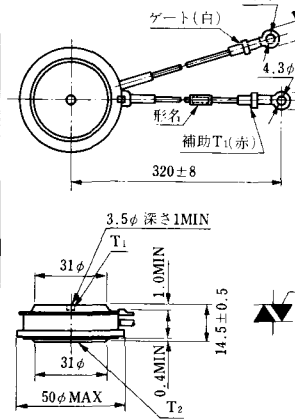
MT-20



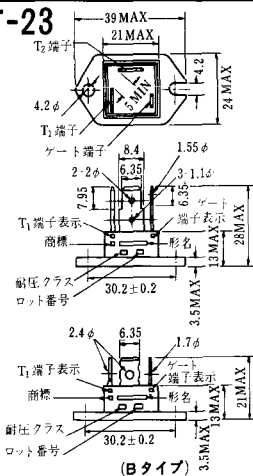
MT-21



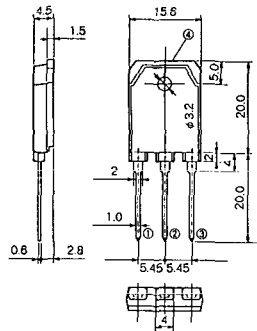
MT-22



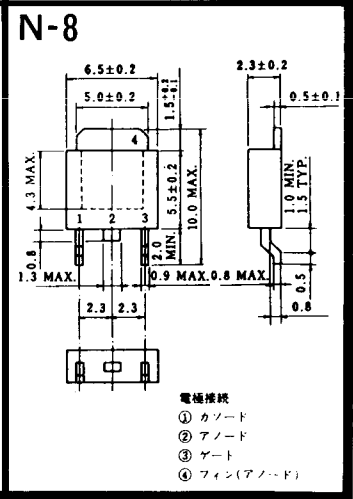
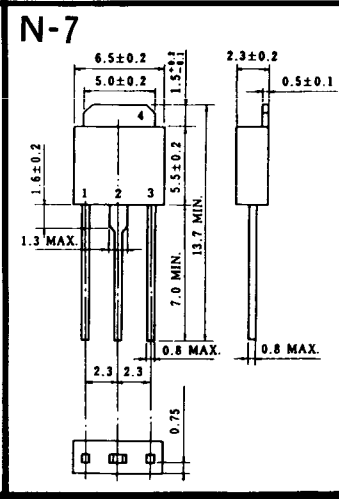
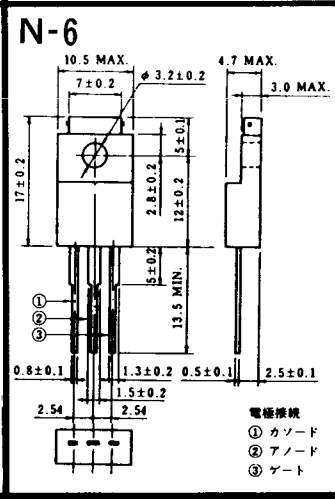
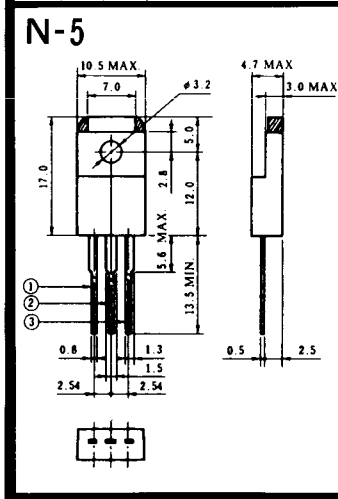
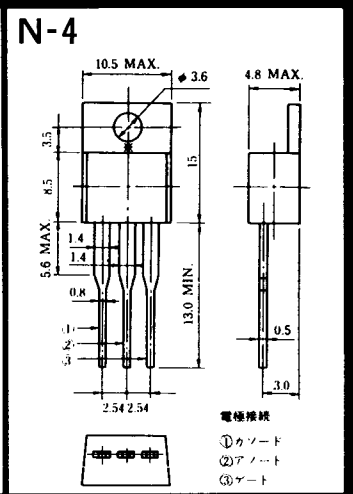
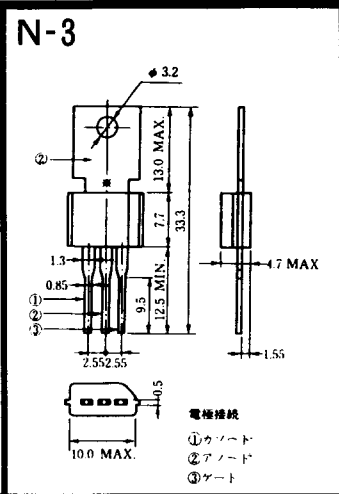
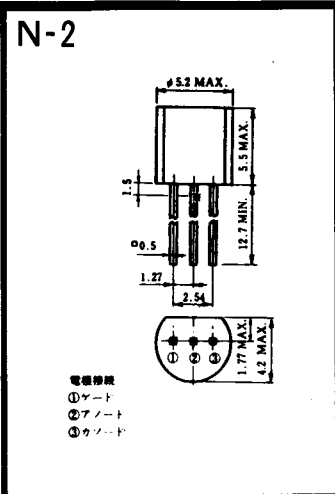
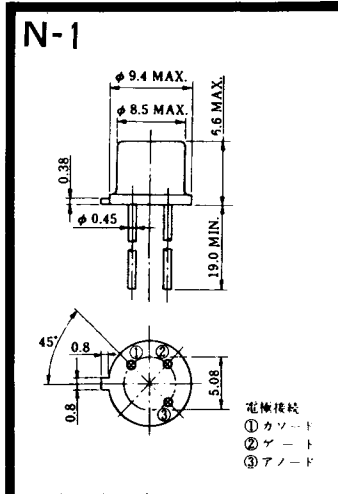
MT-23



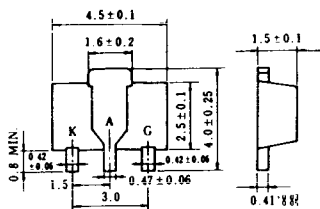
# MT-24



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



N-9



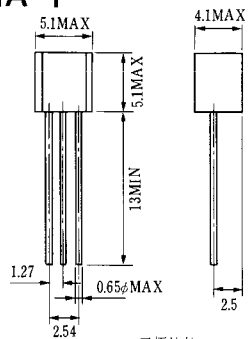
電極接続

K : カソード

A : アノード

G : ゲート

### NA-1

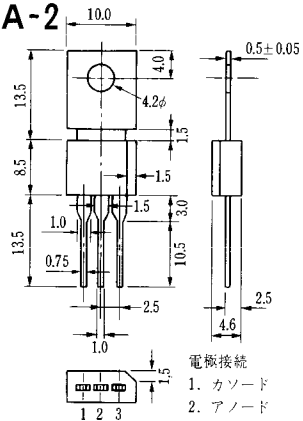


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

### NA-2

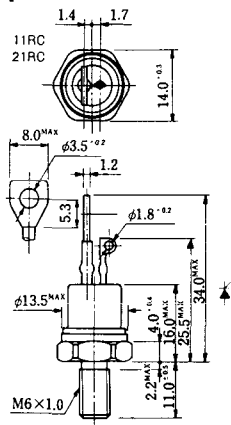


電極接続

1. カソード
2. アノード
3. ゲート

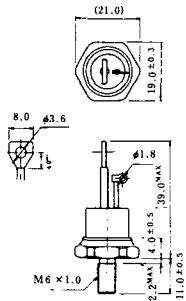
JEDEC: TO-202AA

### NI-1



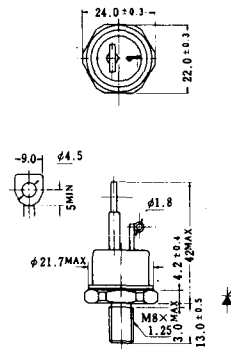
### NI-2

29RD



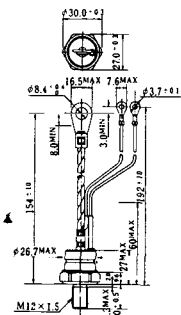
### NI-3

39RC  
59RC  
39RF  
59RF



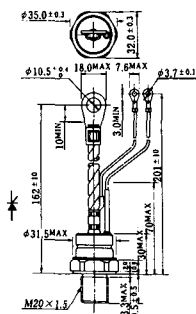
### NI-4

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



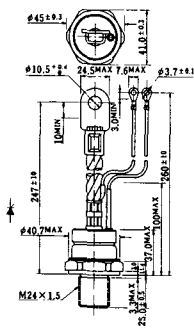
### NI-5

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



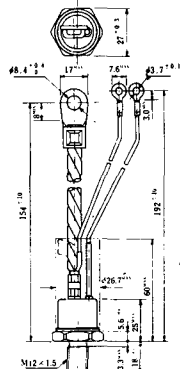
### NI-6

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



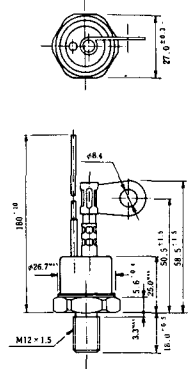
### NI-7

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



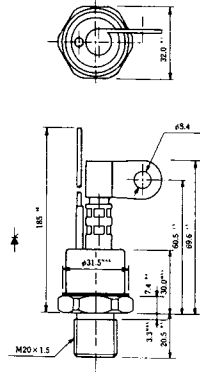
### NI-8

89RW  
129RW



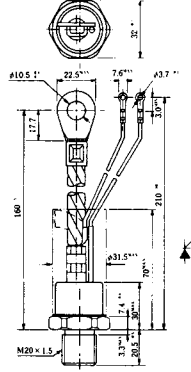
### NI-9

259RW  
309RW



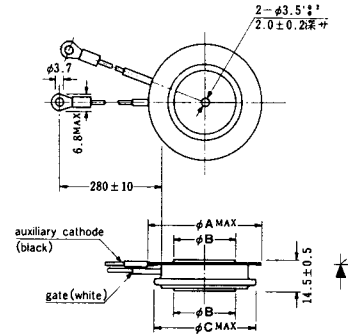
### NI-10

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



### NI-11

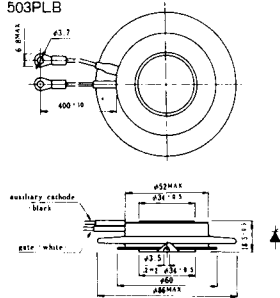
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



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

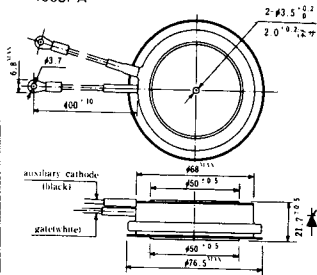
### NI-12

403PAB  
503PAB  
503PLB



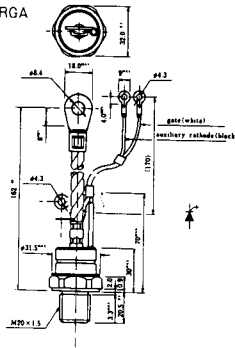
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



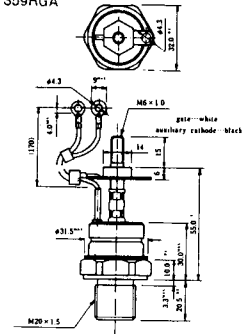
### NI-14

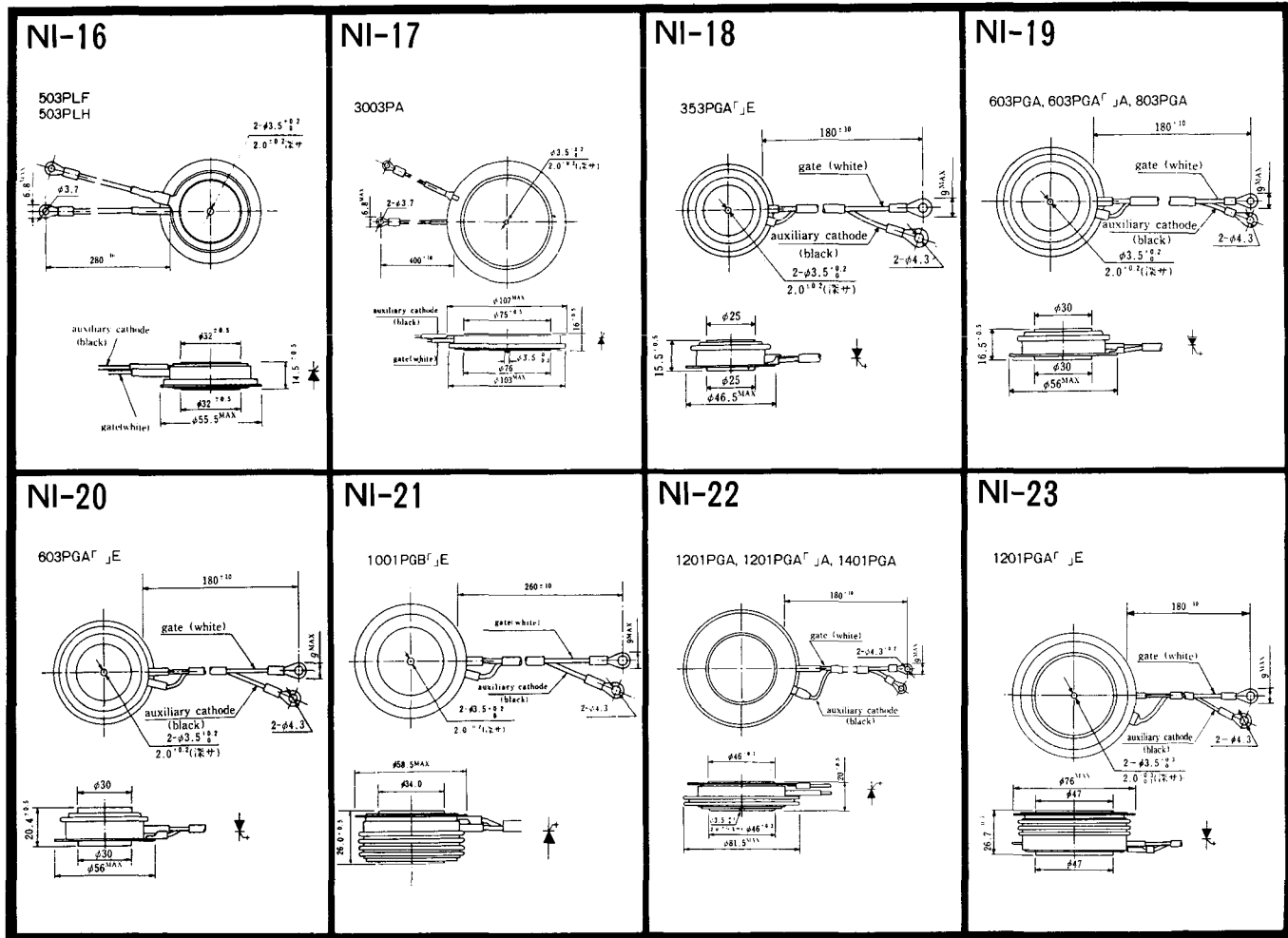
358RGA



### NI-15

359RGA

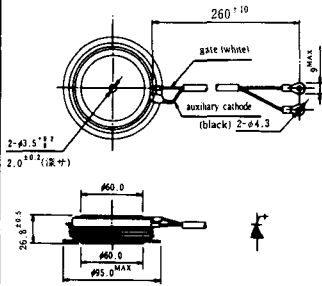






NI-24

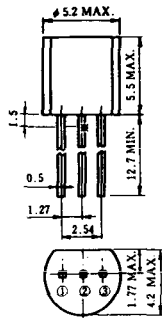
2001PGB<sup>r</sup> JE



NI-25

NI-26

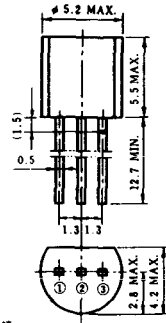
### NT-1



電極接続

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

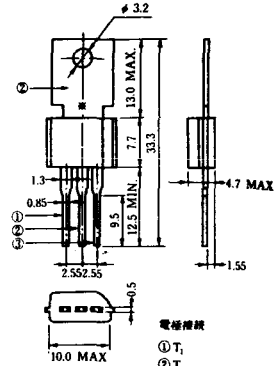
### NT-2



電極接続

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

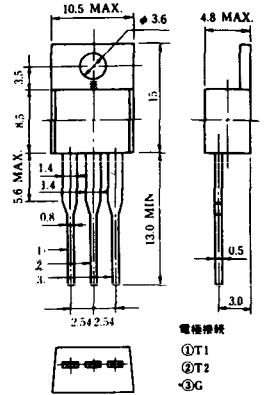
### NT-3



電極接続

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

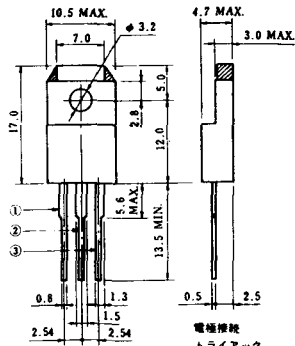
### NT-4



電極接続

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

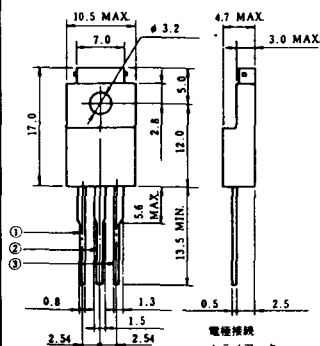
### NT-5



電極接続  
トライアック

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

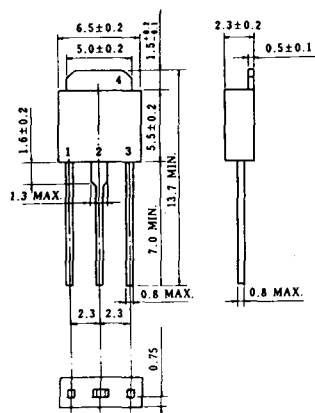
### NT-6



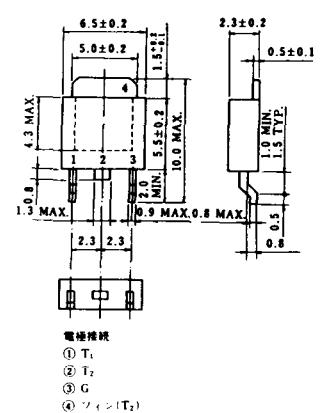
電極接続  
トライアック

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

### NT-7



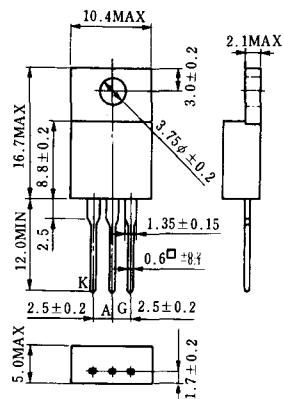
### NT-8



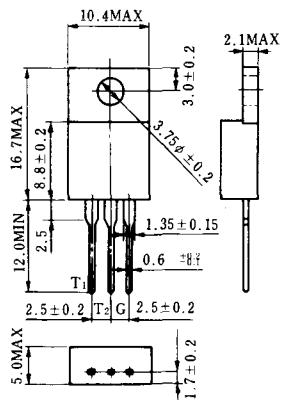
電極接続

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

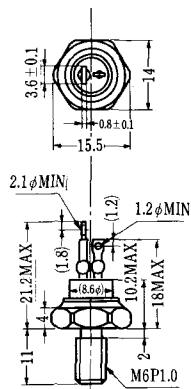
### S-1



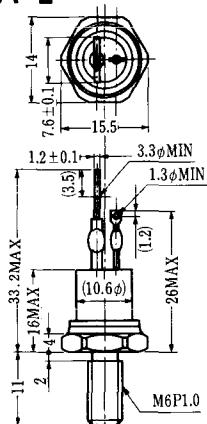
### ST-1



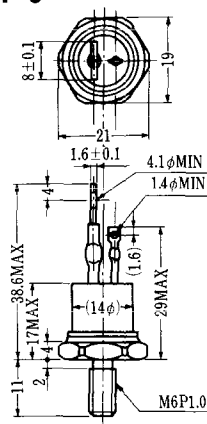
SA-1



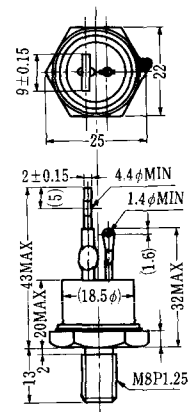
SA-2



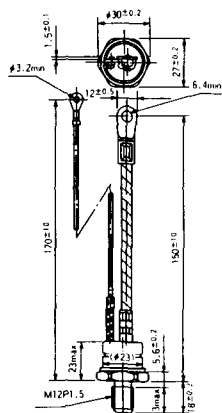
SA-3



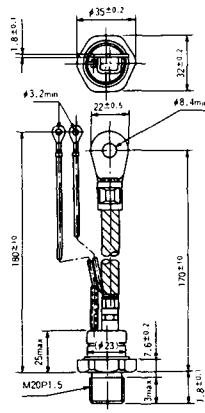
SA-4



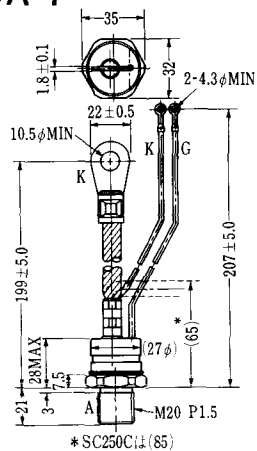
SA-5



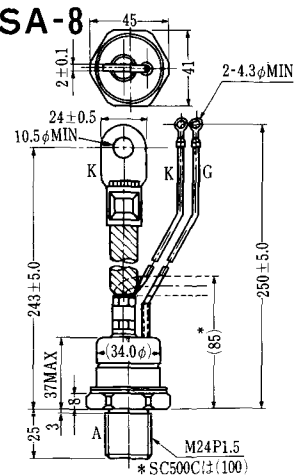
SA-6



SA-7

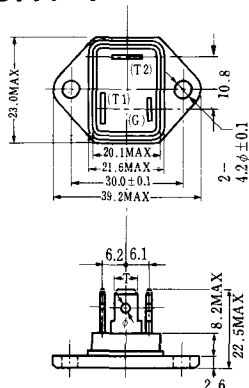


SA-8



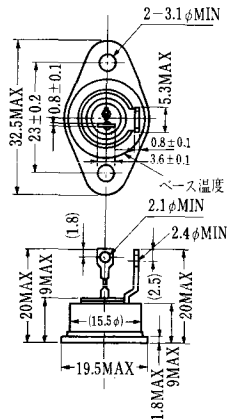


SAT-1



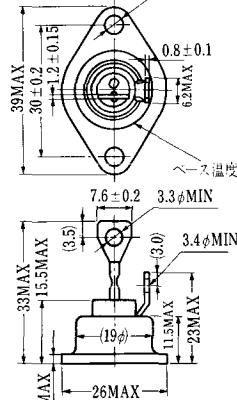
T1 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 T2 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 C 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

SAT-2



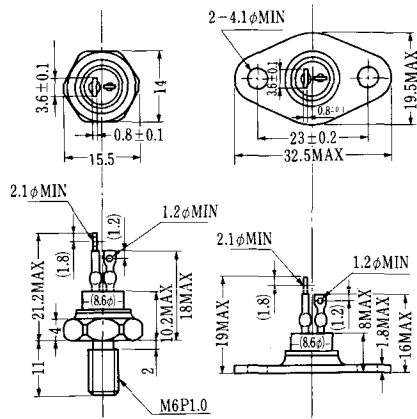
へス 組度

SAT-3

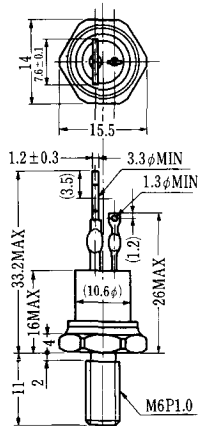


又組入時

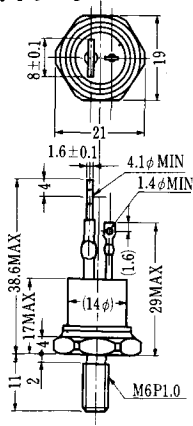
SAT-4



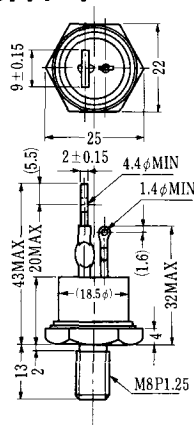
SAT-5



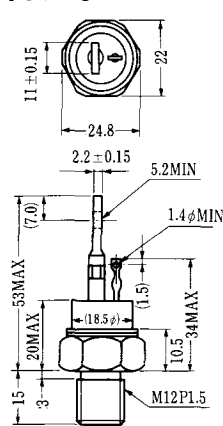
SAT-6



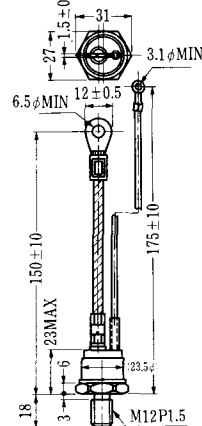
SAT-7



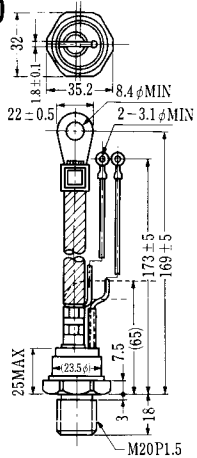
SAT-8



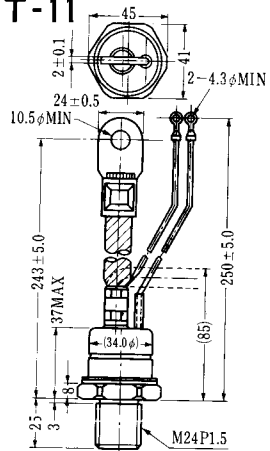
SAT-9



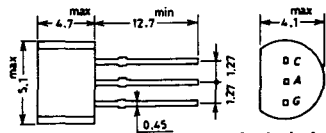
SAT-10



SAT-11

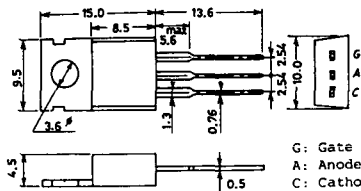


### SY-1 (1096A)



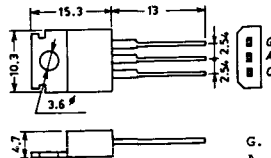
C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



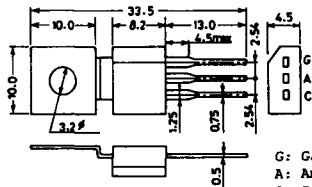
G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

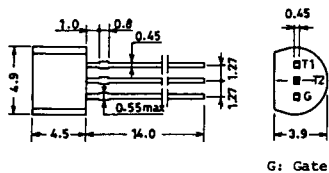
### SY-4 (1150)



G: Gate  
A: Anode  
C: Cathode

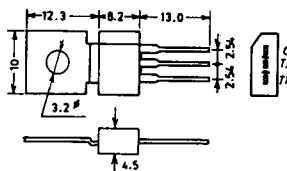


1097A

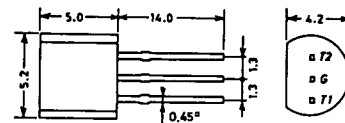


G: Gate

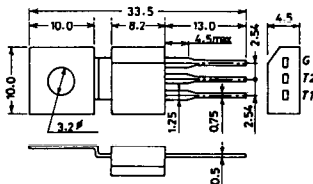
1102



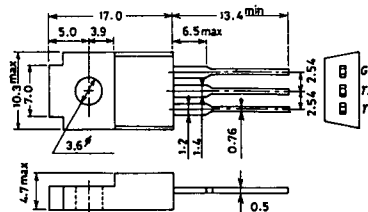
1141



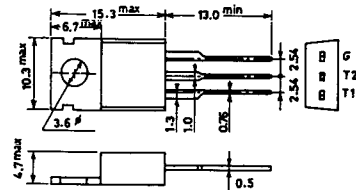
1142



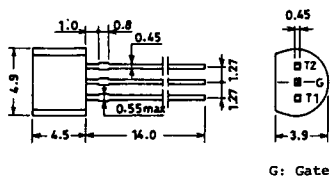
1144



1155

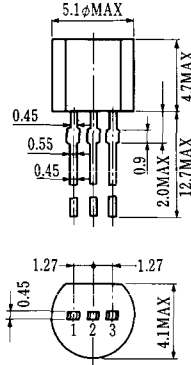


1192A



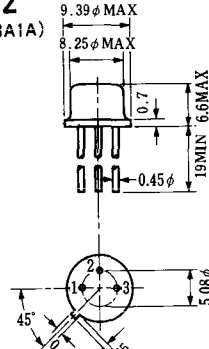
G: Gate

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



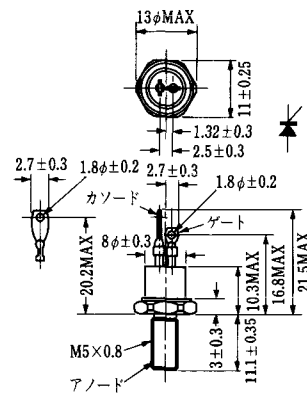
- 1 ゲート
- 2 アノード
- 3 カソード

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



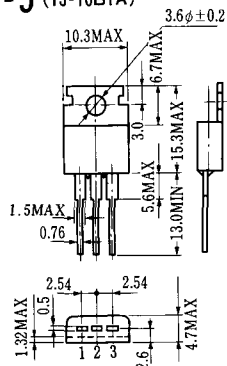
1. カソード
2. ゲート
3. アノード(ケース)

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



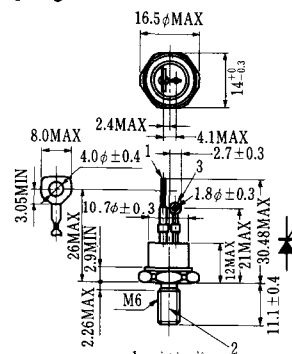
- 1 カソード
- 2 アノード
- 3 ゲート

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



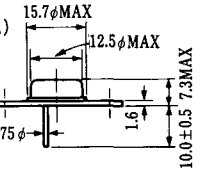
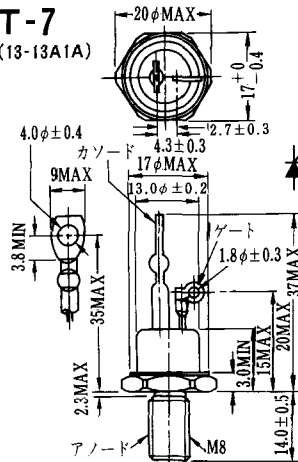
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 ゲート

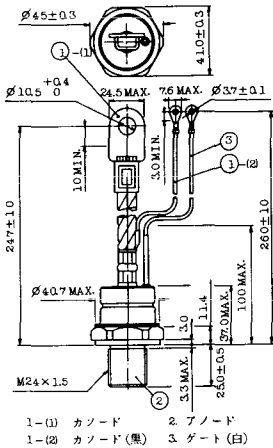
**T-7 (13-13A1A)**



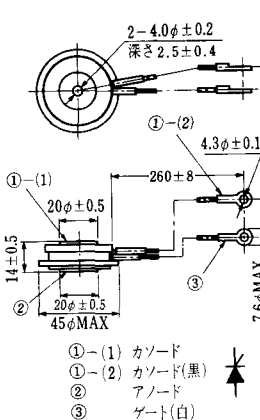
1. ゲート
2. カソード
3. アノード(ケース)



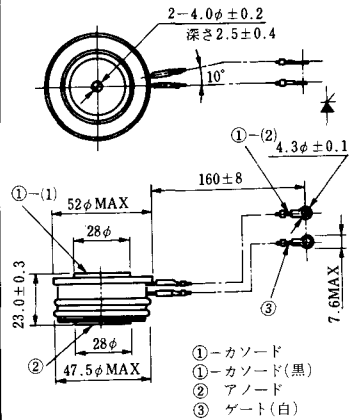
**T-17 (13-42A1A)**



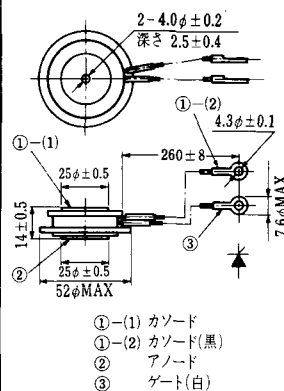
**T-18 (13-45D1A)**



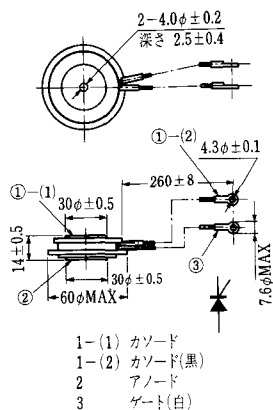
**T-19 (13-52B1A)**



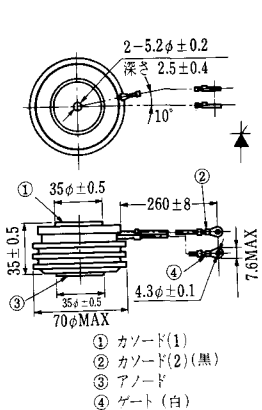
**T-20 (13-52C1A)**



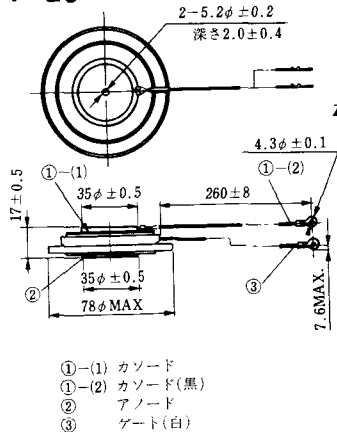
**T-21 (13-60A1A)**



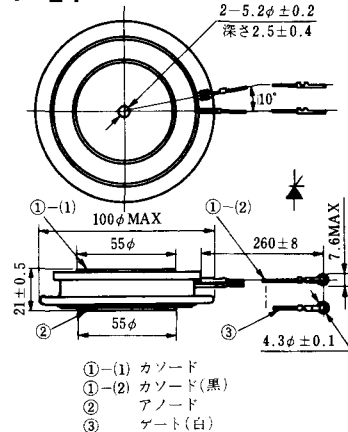
**T-22 (13-70C1A)**



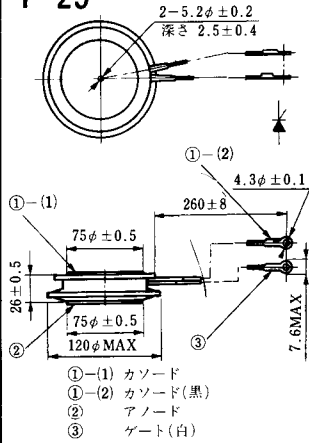
**T-23 (13-78A1A)**



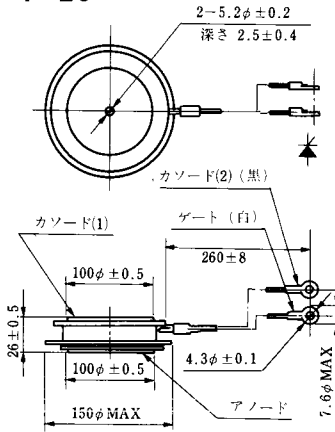
**T-24 (13-100C1A)**



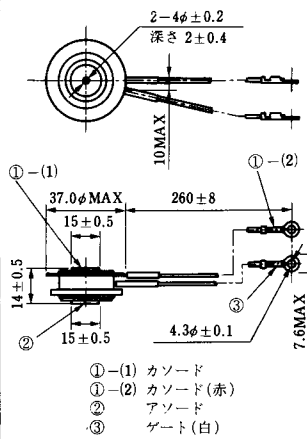
**T-25** (13-120A2A)



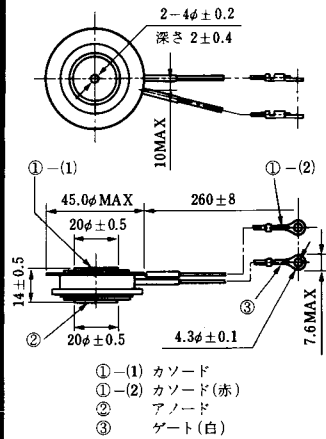
**T-26** (13-150A1A)



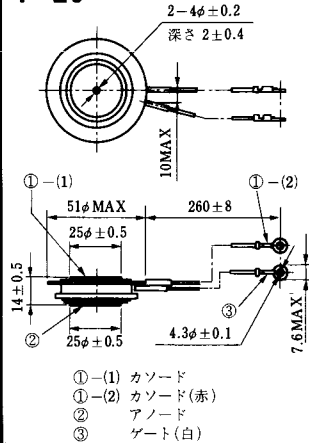
**T-27** (13-37A1A)



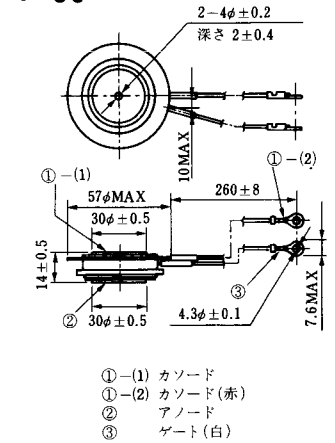
**T-28** (13-45E1A)



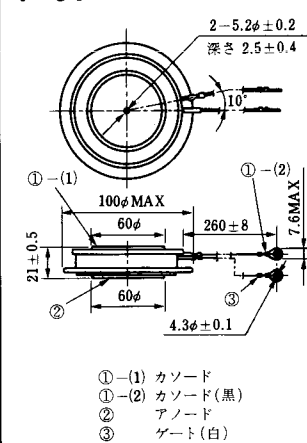
**T-29** (13-51A1A)



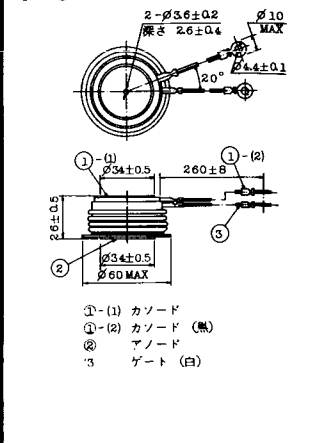
**T-30** (13-57A1A)



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

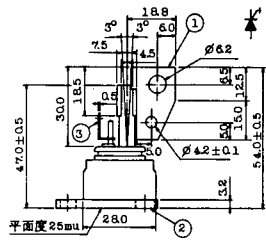
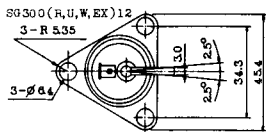


**T-32** (13-60E3A)



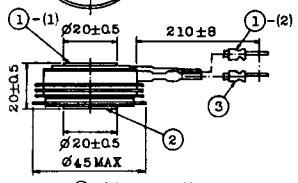
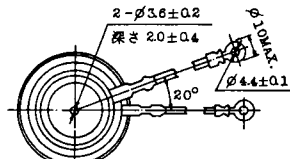


### T-41 (13-28A2A)



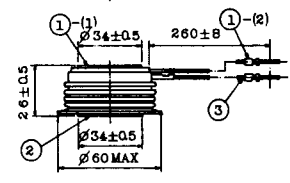
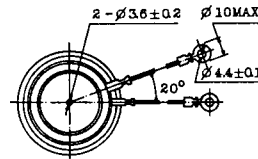
- 1 カソード
- 2 アノード
- 3 ゲート

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



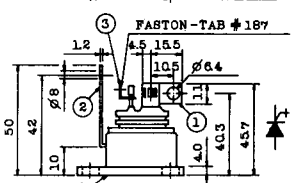
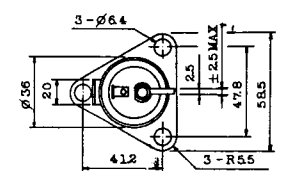
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



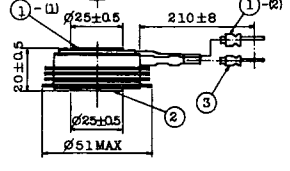
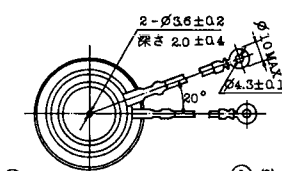
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



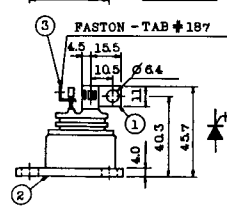
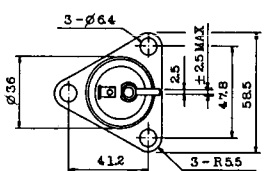
- 1 カソード
- 2 アノード
- 3 ゲート

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



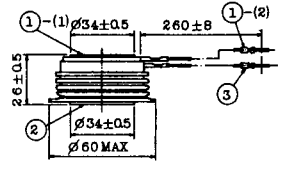
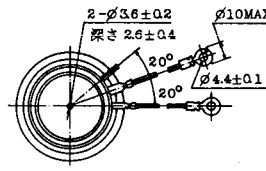
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



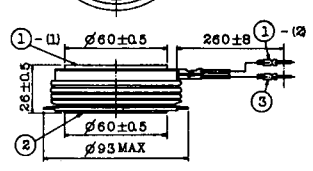
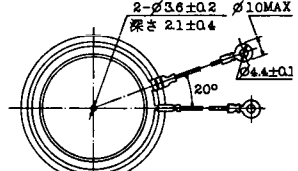
- 1 カソード
- 2 アノード
- 3 ゲート

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



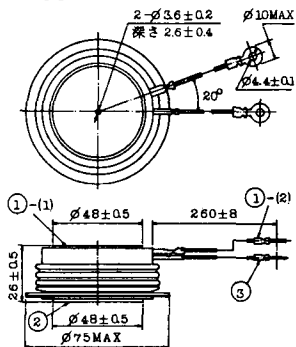
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



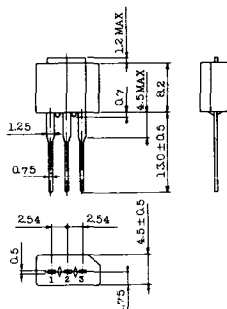
- ①-(1) カソード
- ①-(2) カソード(黒色)
- ② アノード
- ③ ゲート(白色)

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



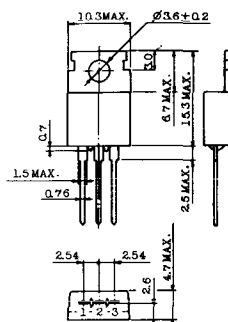
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



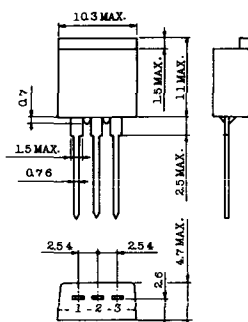
- 1 カソード
- 2 アノード
- 3 ゲート

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



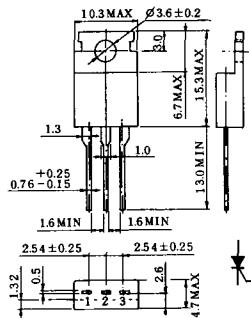
- 1 カソード
- 2 アノード
- 3 ゲート

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



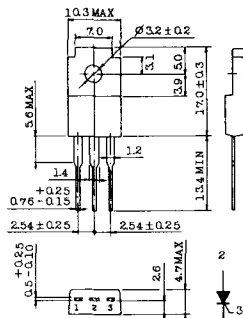
- 1 カソード
- 2 アノード
- 3 ゲート

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



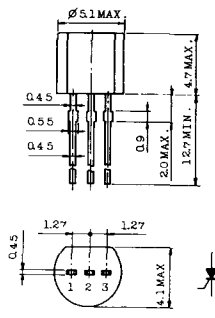
- 1 カソード
- 2 アノード
- 3 ゲート

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



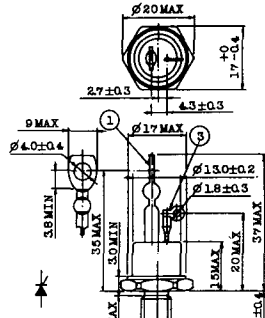
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 アノード

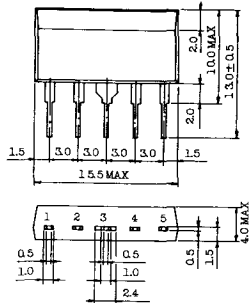
**T-56** (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

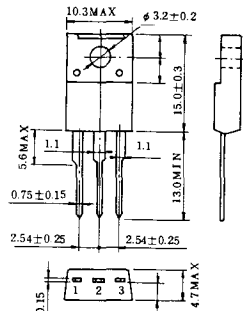


T-57 (12-16C1A)



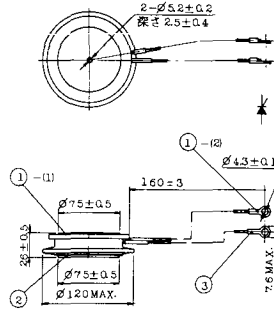
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



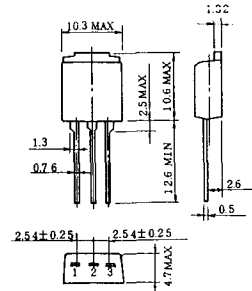
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



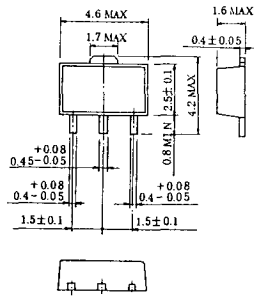
- 1-1) カソード
- 1-12) カソード (黒)
- 2) アノード
- 3) ゲート (白)

T-60



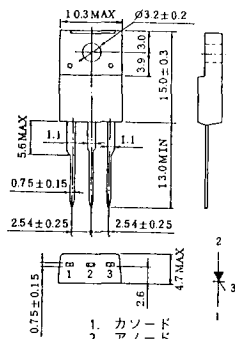
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



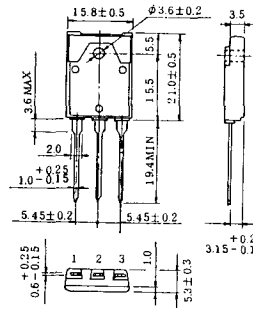
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



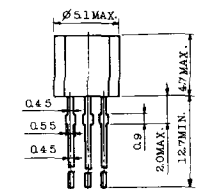
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



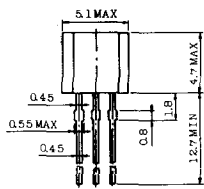
1. カソード
2. アノード
3. ゲート

TT-1



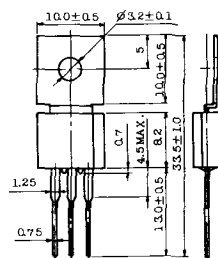
- 1. ゲート
- 2. T<sub>2</sub>
- 3. T<sub>1</sub>

TT-2



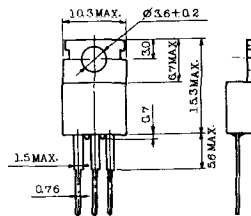
- 1. T<sub>1</sub>
- 2. ゲート
- 3. T<sub>2</sub>

TT-3



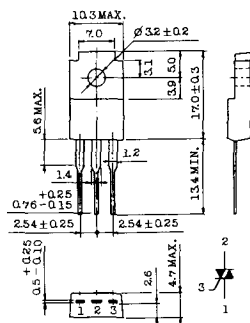
- 1. T<sub>1</sub>
- 2. T<sub>2</sub>
- 3. ゲート

TT-4



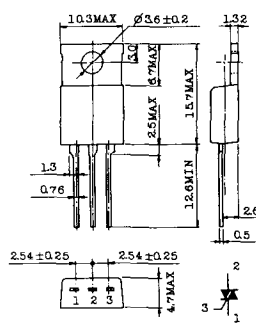
- 1. T<sub>1</sub>
- 2. T<sub>2</sub>
- 3. ゲート

TT-5



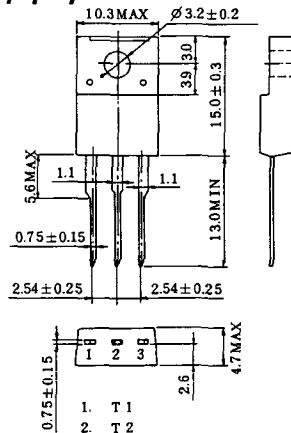
- 1. T<sub>1</sub>
- 2. T<sub>2</sub>
- 3. ゲート

TT-6



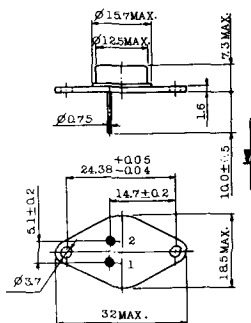
- 1. T<sub>1</sub>
- 2. T<sub>2</sub> (放熱板)
- 3. ゲート

TT-7



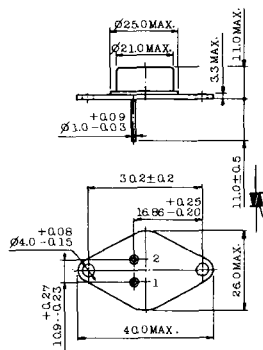
- 1. T<sub>1</sub>
- 2. T<sub>2</sub>
- 3. ゲート

TT-8



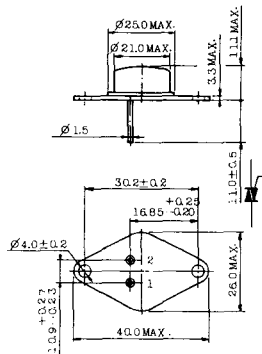
- 1. ゲート
- 2. T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



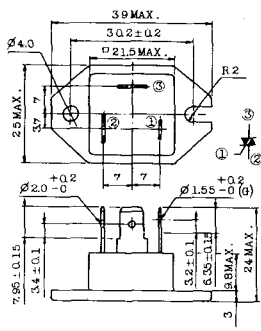
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-10



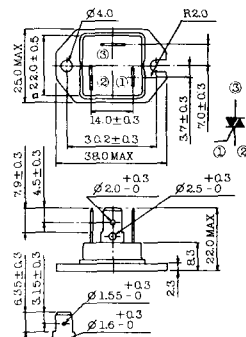
1. ゲート
2. T<sub>1</sub>
3. T<sub>2</sub> (ケース)

TT-11



1. ゲート (フッ素樹脂子 #187)
2. T<sub>1</sub> ( " #250)
3. T<sub>2</sub> ( " #250)

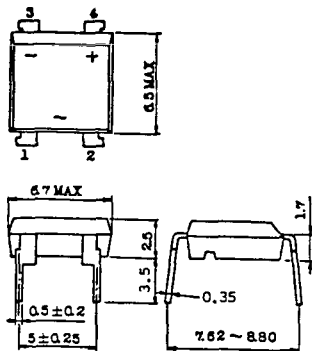
TT-12



ゲート端子詳細

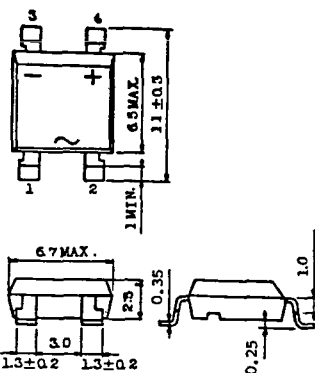
- ① ゲート (フッ素樹脂子 #187)
- ② T<sub>1</sub> ( " #250)
- ③ T<sub>2</sub> ( " #250)

TT-13



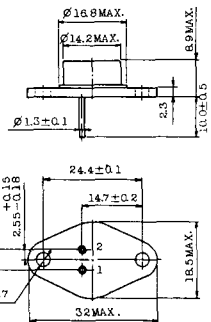
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



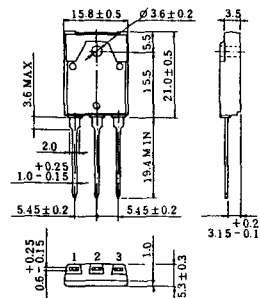
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-15 (13-14A1B)

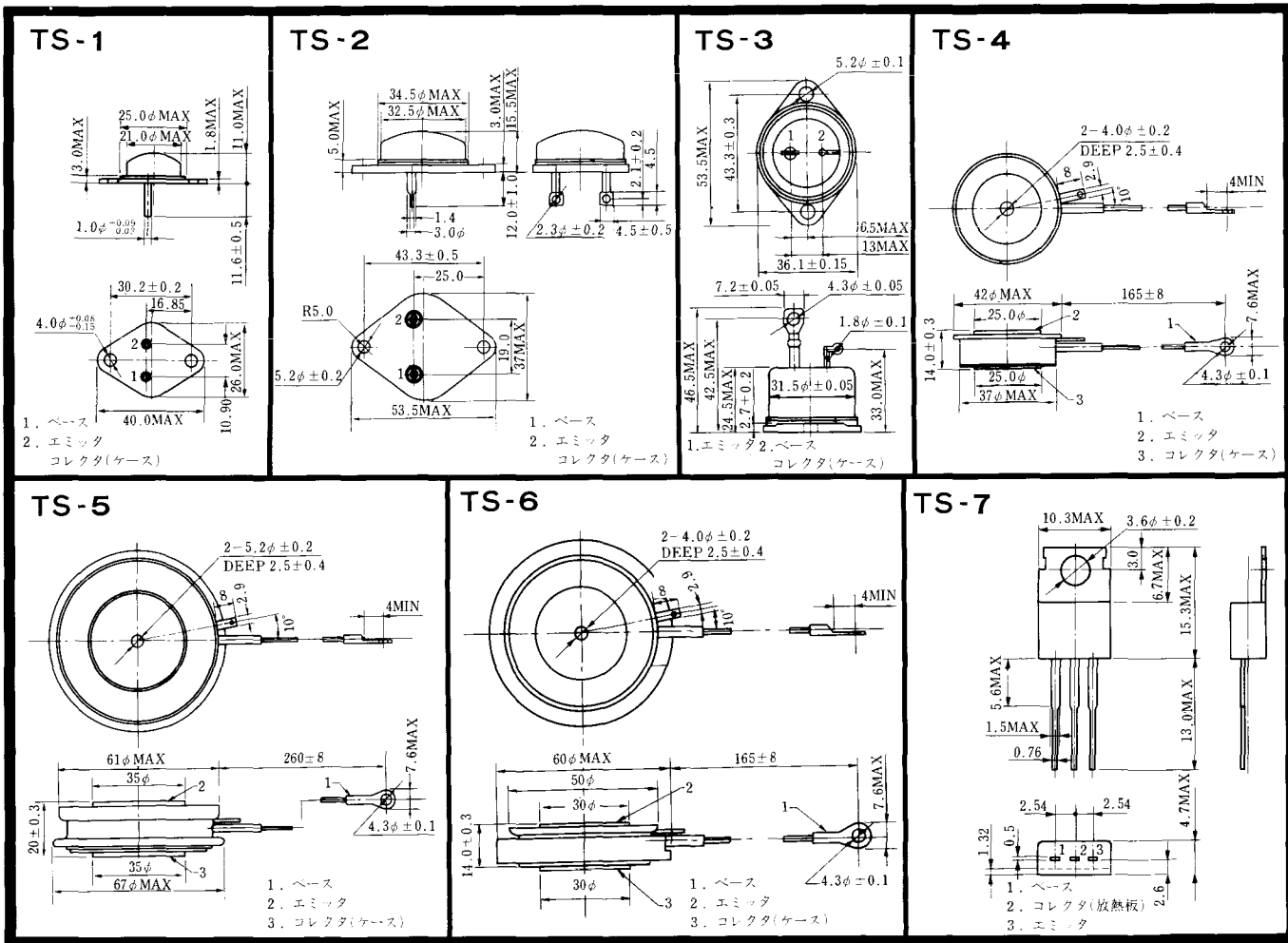


1. ゲート
2. T<sub>1</sub>
- T<sub>2</sub> (ケース)

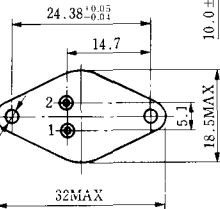
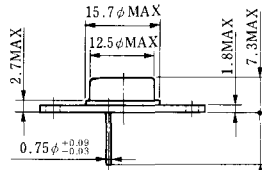
TT-16 (13-16A1A)



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

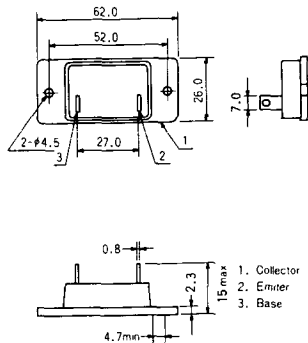


# TS-8

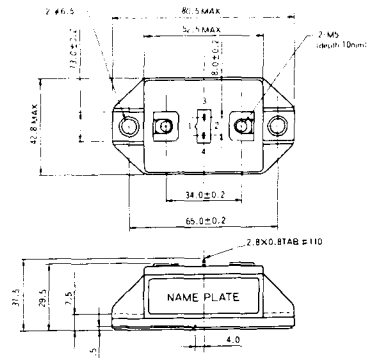


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

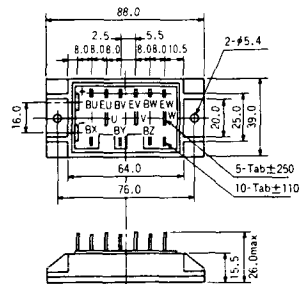
### S-62A1A



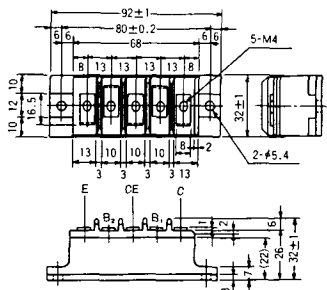
### S-80A1A



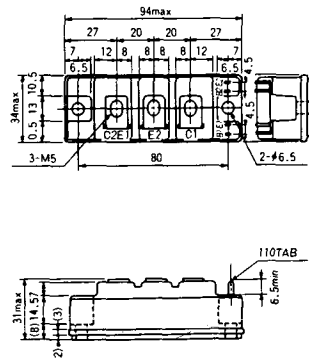
### S-88D1A



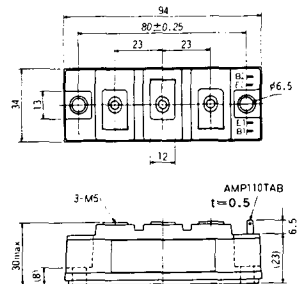
### S-92B1A



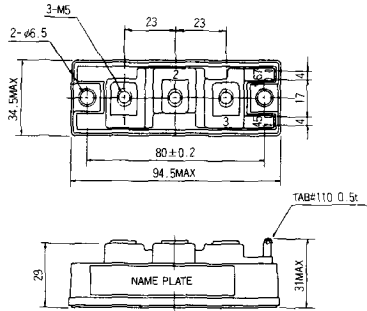
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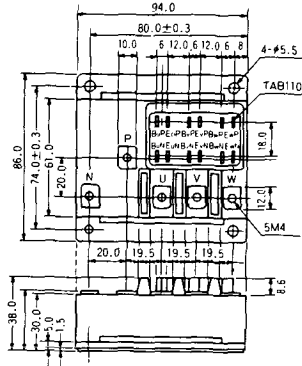
### S-94B1B



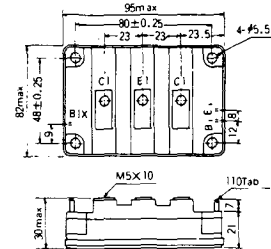
S-94B2A



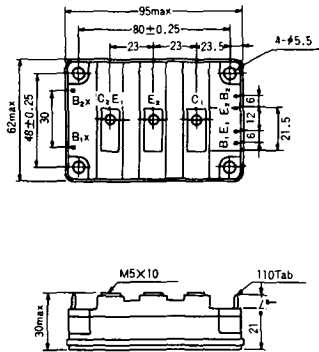
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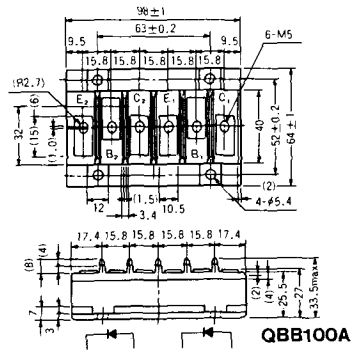
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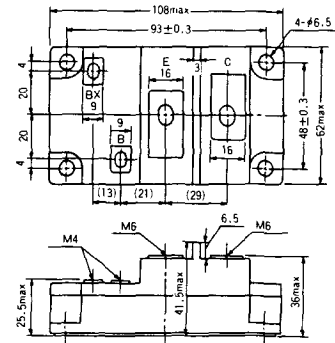
S-95B1A



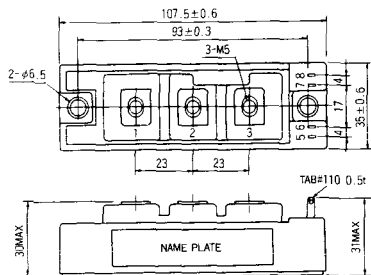
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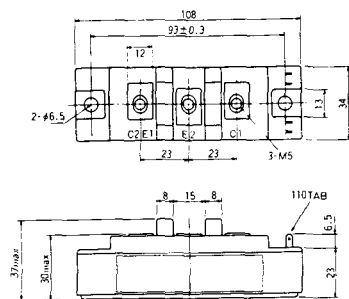
S-108A2A



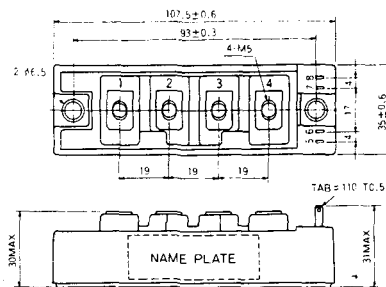
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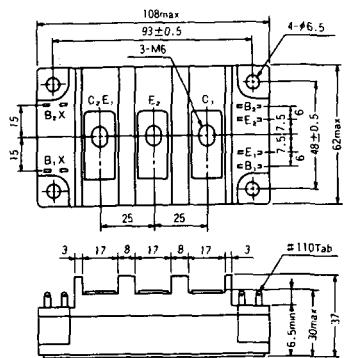
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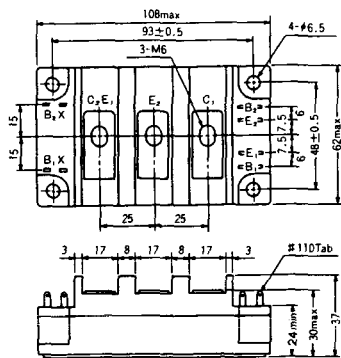
S-108B1C



S-108B2A

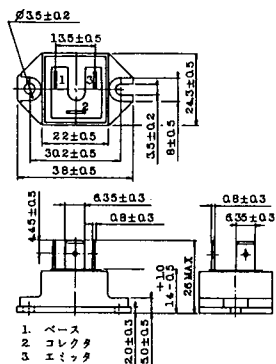


S-108B2B

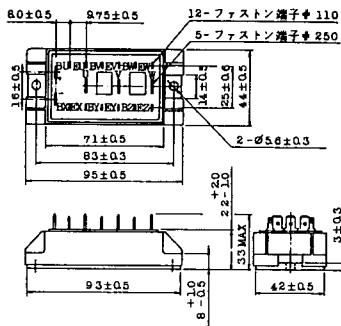




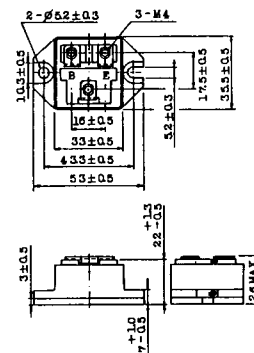
### 2-22B1A



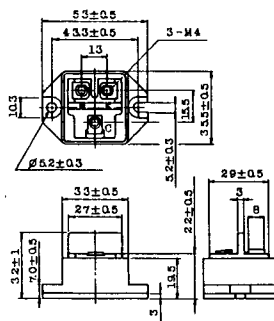
### 2-27A4A



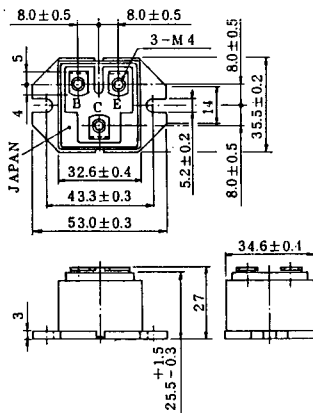
### 2-33C1A



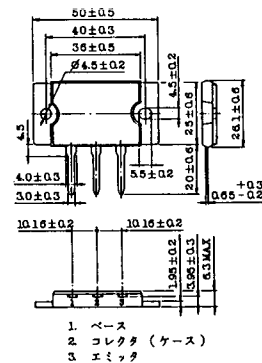
### 2-33D1A



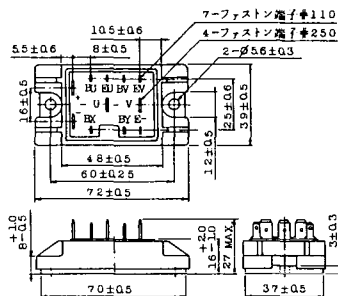
### 2-33F1A



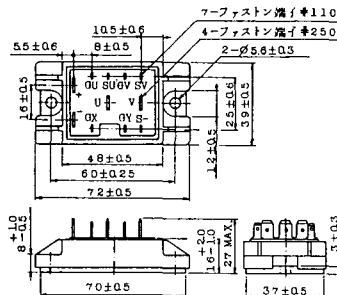
### 2-37A1A



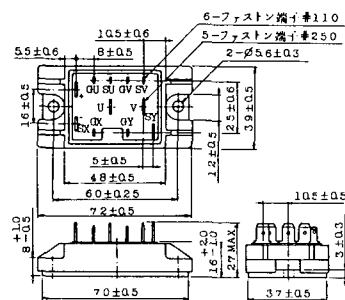
2-48A3A



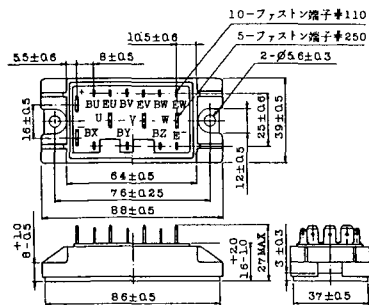
2-48A3B



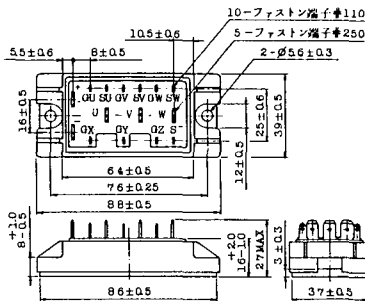
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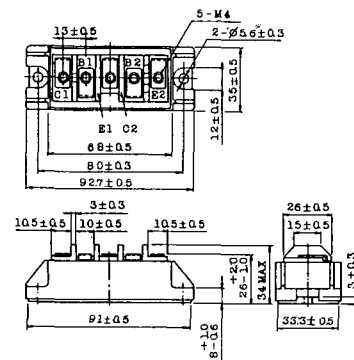
2-64A2A



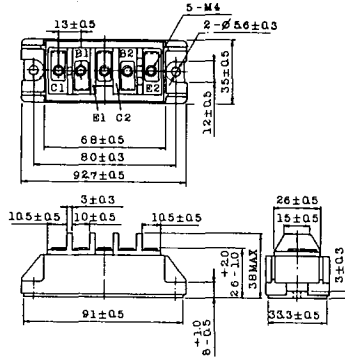
2-64A2B



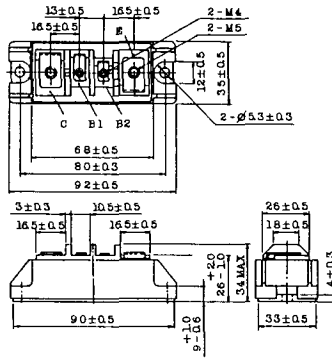
2-68A2A



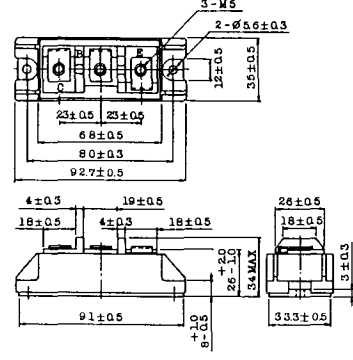
2-68B2A



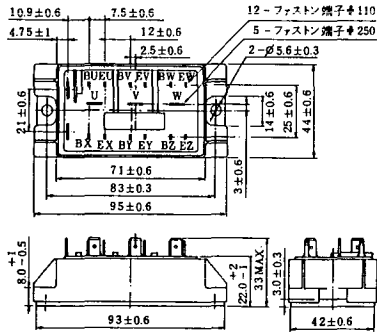
2-68C1A



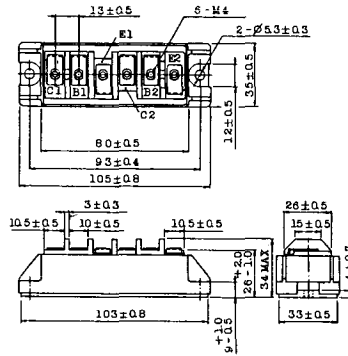
2-68D2A



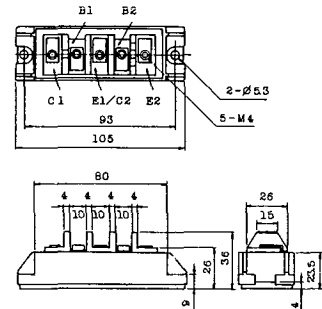
2-72A3A



2-80A1A

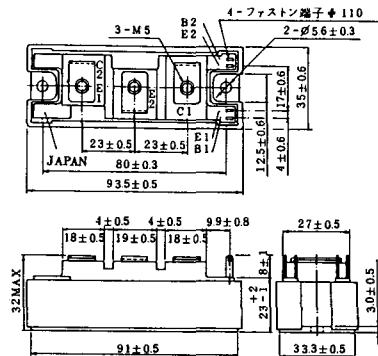


2-80B1A

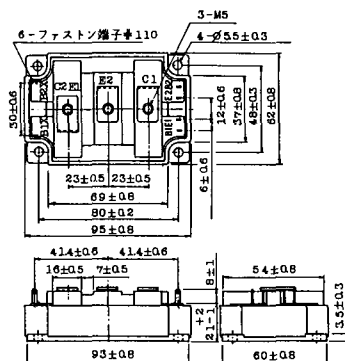




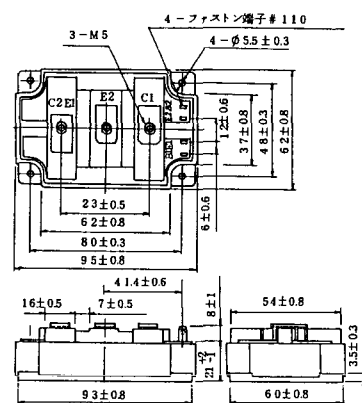
### 2-94D1A



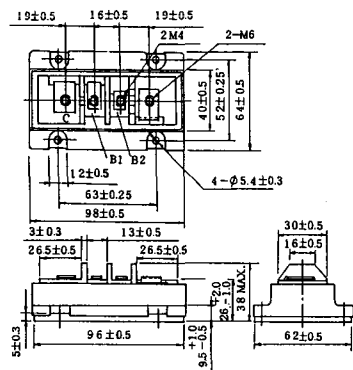
### 2-96A3A



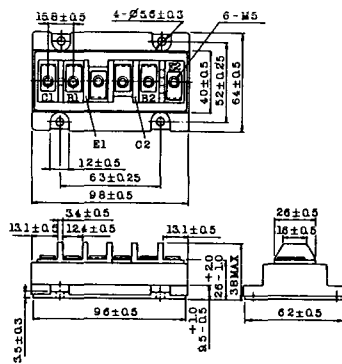
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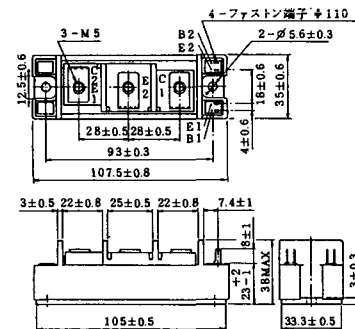
### 2-98B1A



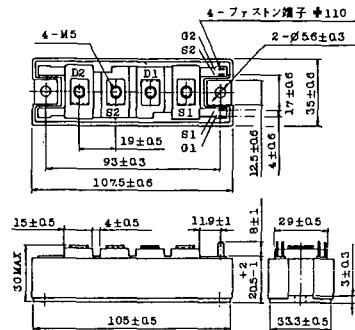
### 2-98C2A



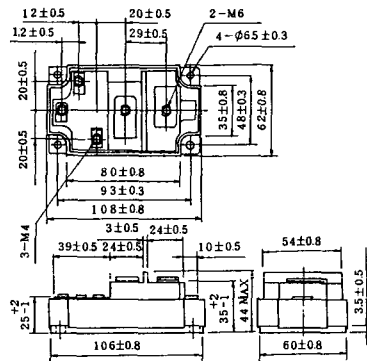
### 2-108A2A



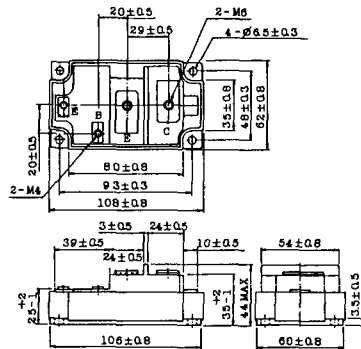
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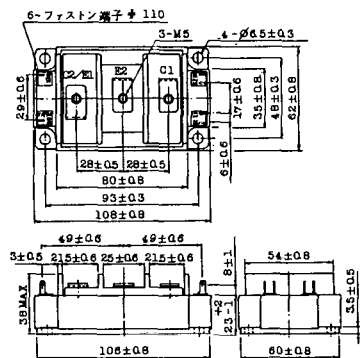
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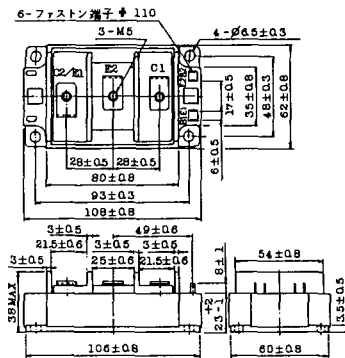
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### 2-109B3A

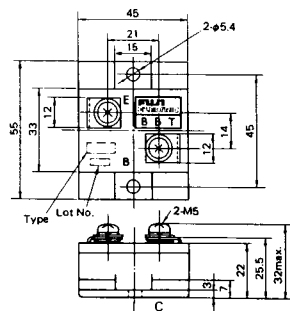


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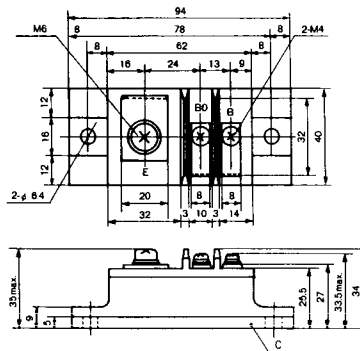
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BBTII  
1D200A-020



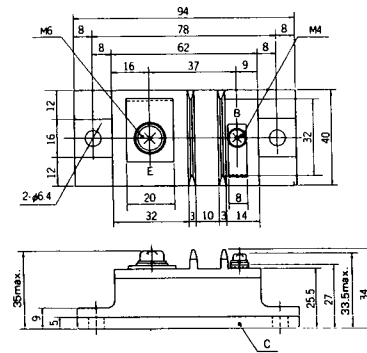
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ETM36-030  
ETN36-030  
ETN35-030



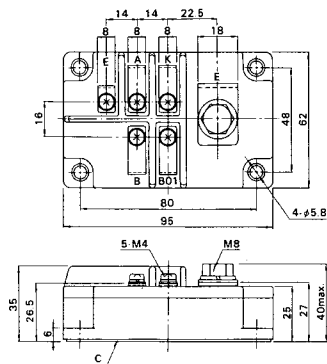
### BBT-III

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ETN01-055  
ET1257

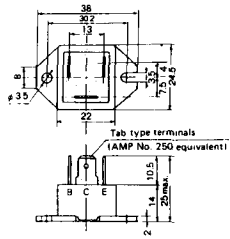


### BBT-IV

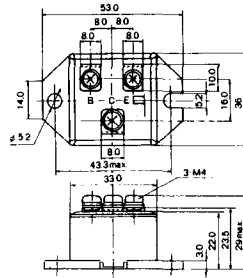
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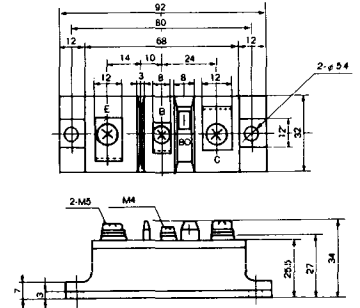
M-101



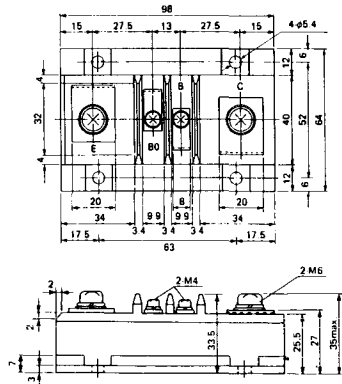
M-102



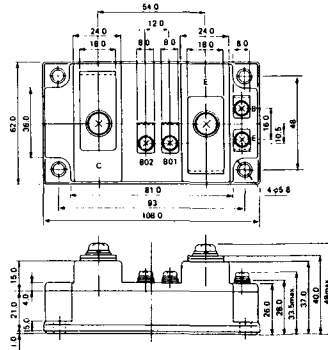
M-103



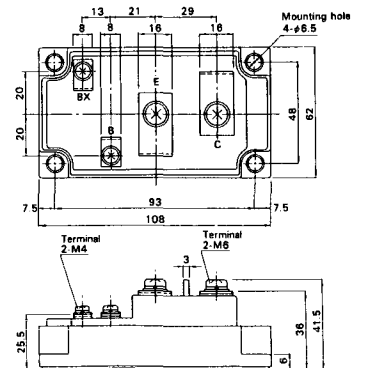
M-104



M-105

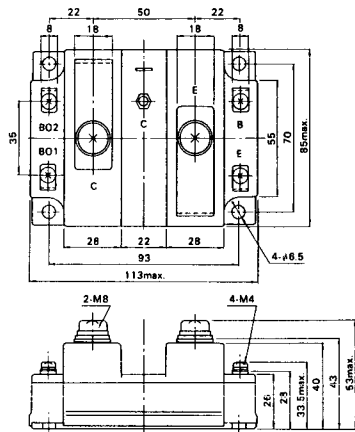


M-106

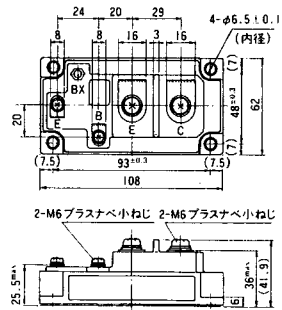




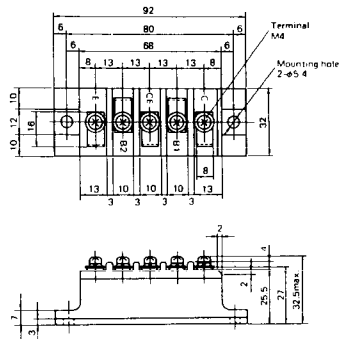
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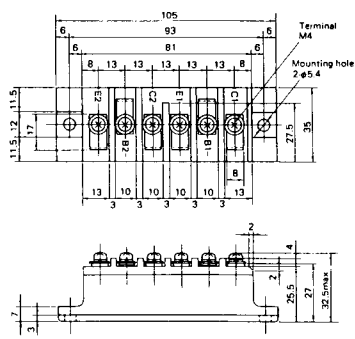
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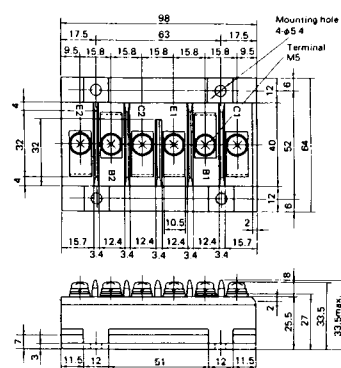
M-201



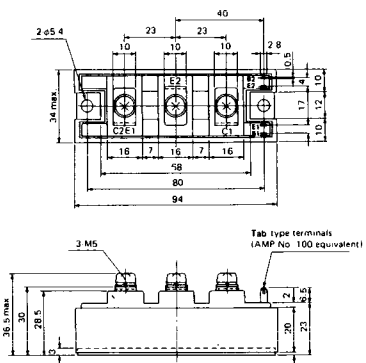
M-202



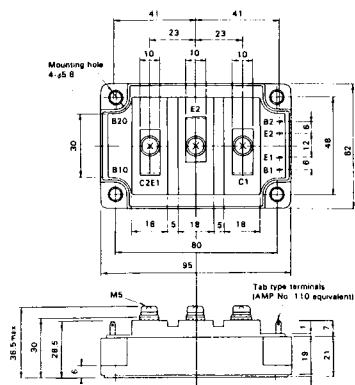
M-203



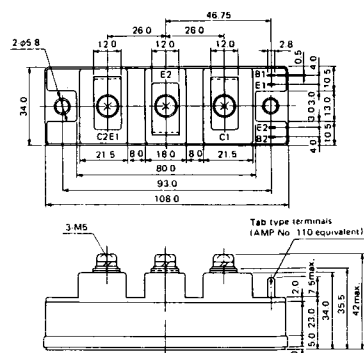
M-204



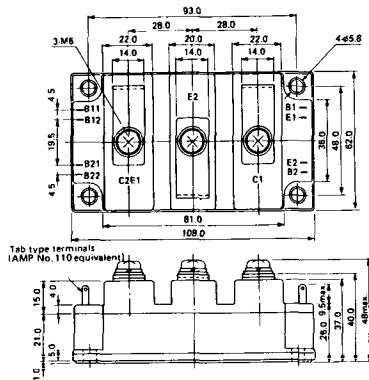
M-205



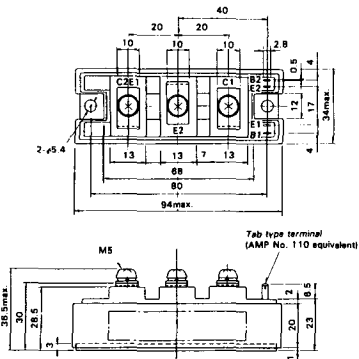
M-206



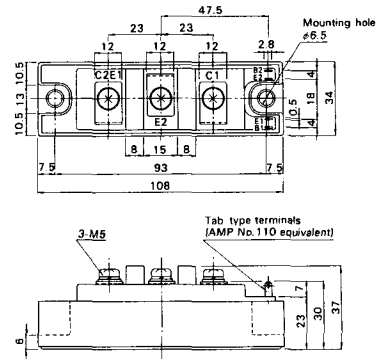
M-207



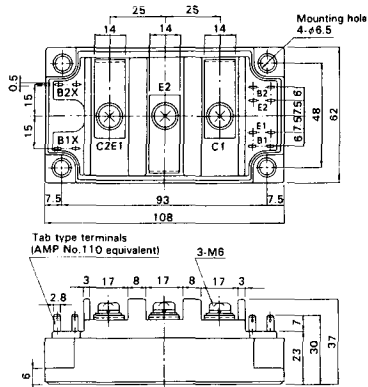
M-208



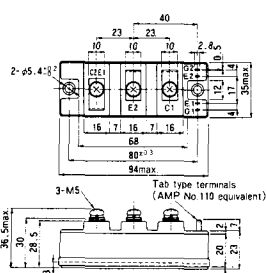
M-209



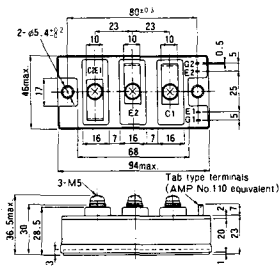
M-210



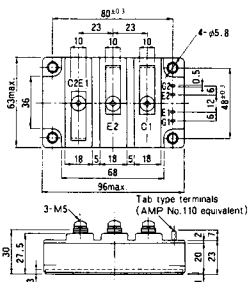
M-211



M-212

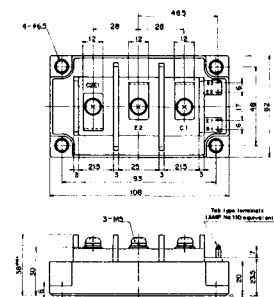


M-213

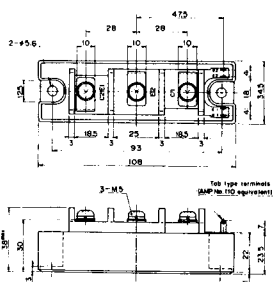


M-214

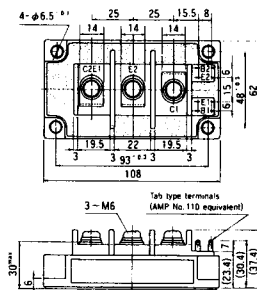
M-215



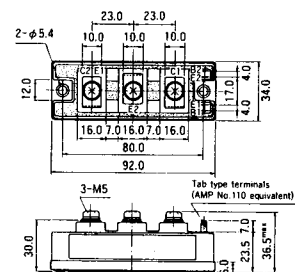
M-216



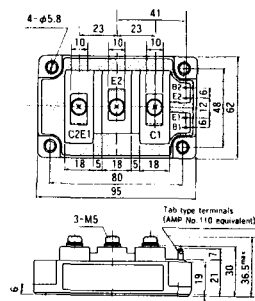
M-217



M-218

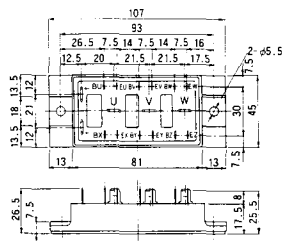


M-219

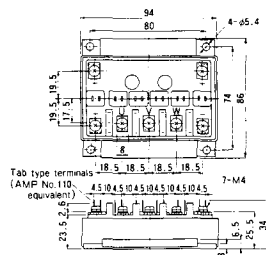




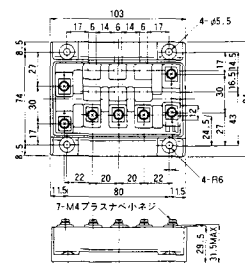
M-607



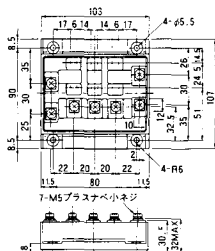
M-608



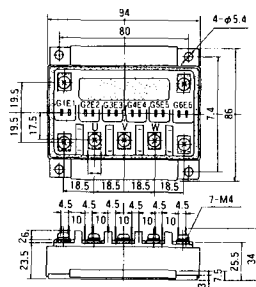
M-609



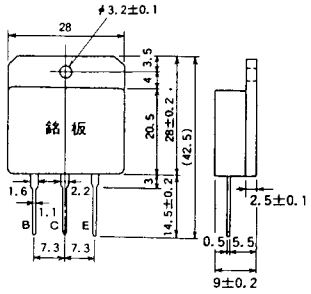
M-610



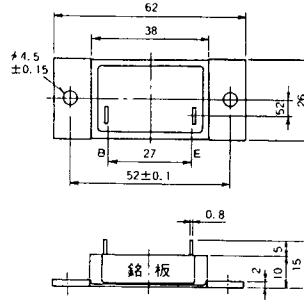
M-616



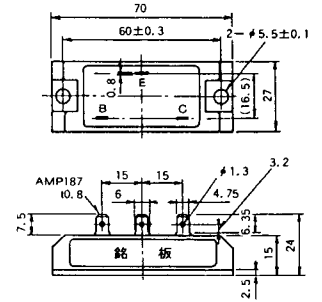
M-1A1A



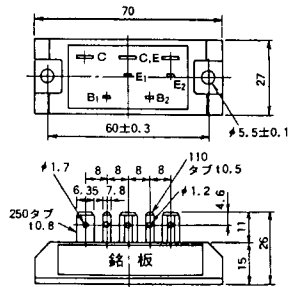
M-2A1A



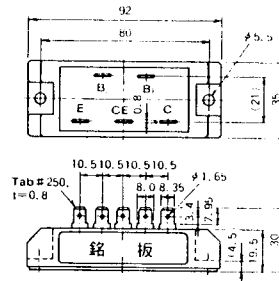
M-2B1A



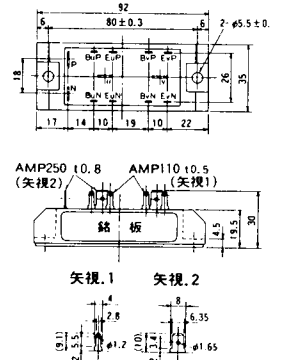
M-2B2A



M-2C2A

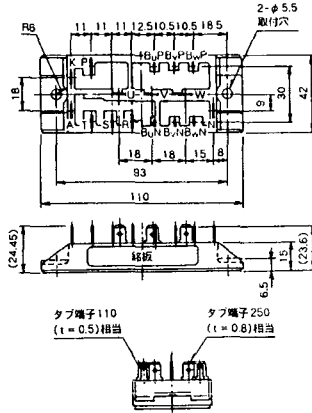


M-2D4A

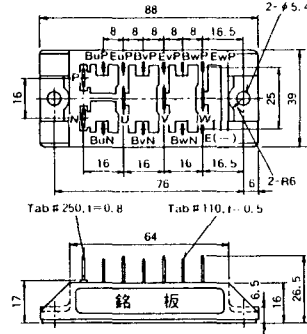




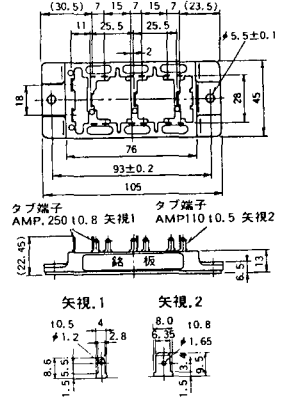
### M-2E6A



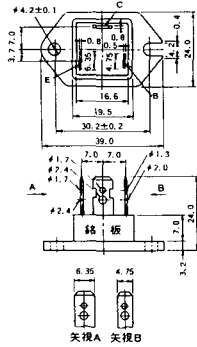
### M-2F6A



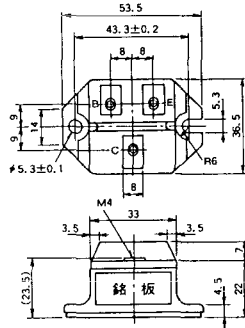
### M-2G6A



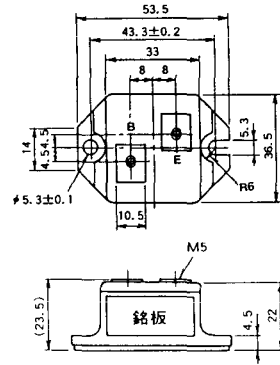
### M-3A1A



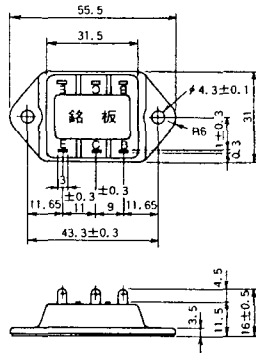
### M-3B1A



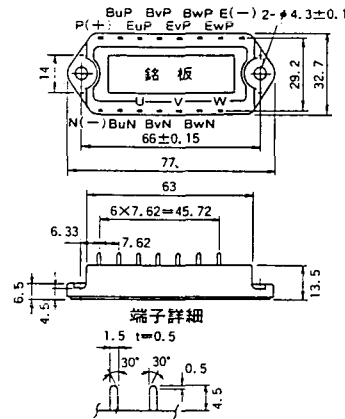
### M-3B1B



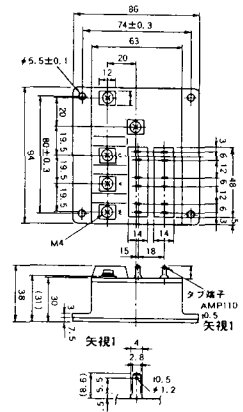
M-3C1A



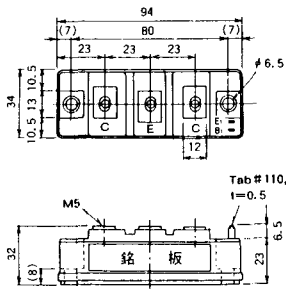
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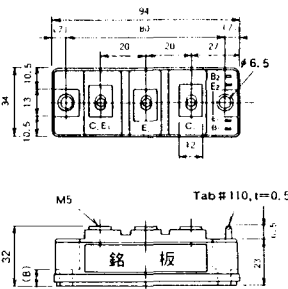
M-3E6A



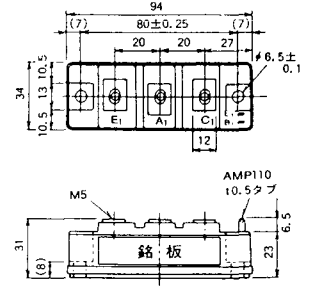
M-4A1A



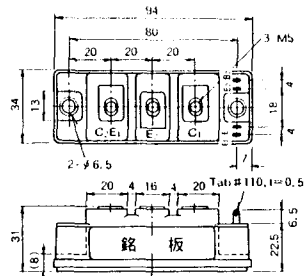
M-4A2A



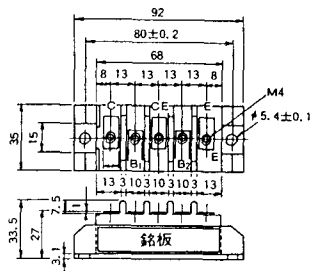
M-4A1B



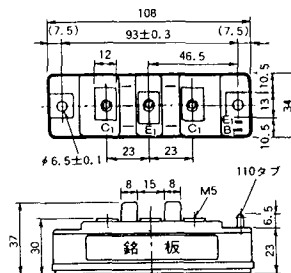
M-4A2B



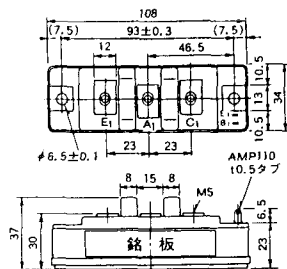
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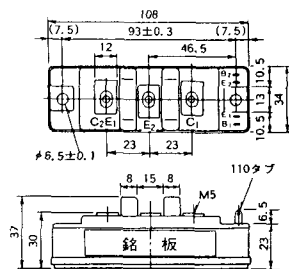
M-5A1A



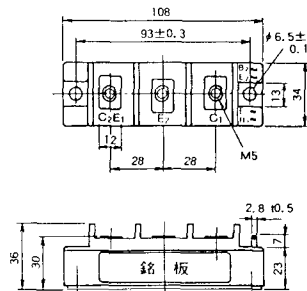
M-5A1B



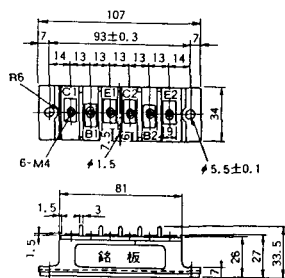
M-5A2A



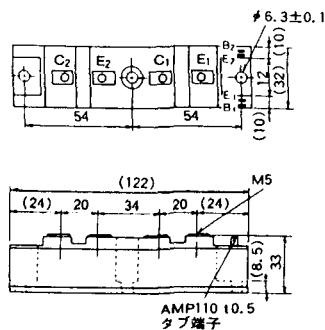
M-5B2A



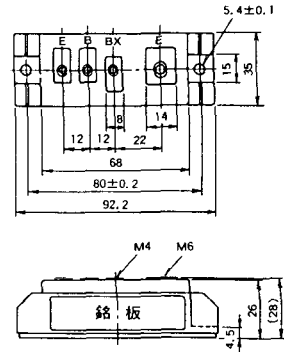
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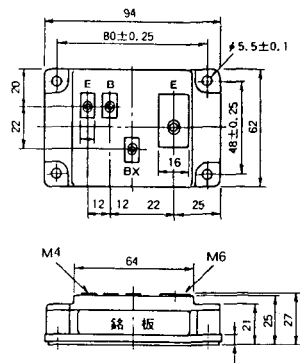
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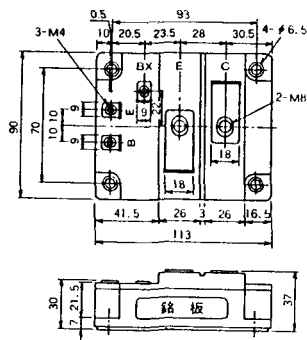
### M-6A1A



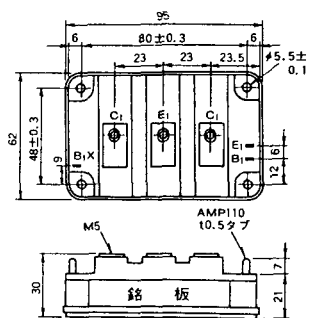
### M-7A1A



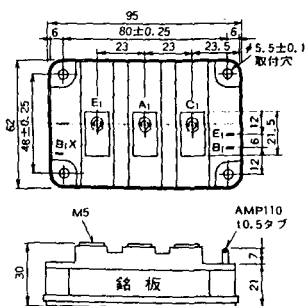
### M-7B1A



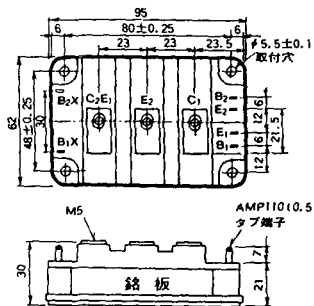
### M-8A1A



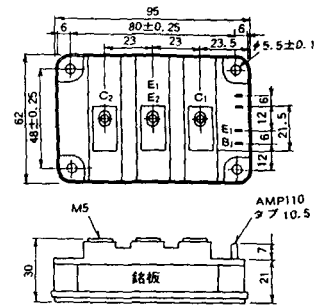
M-8A1B



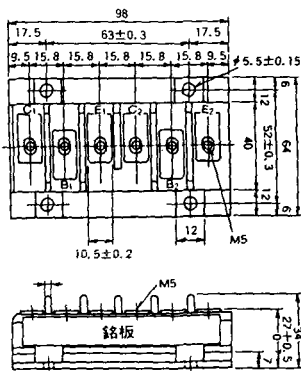
M-8A2A



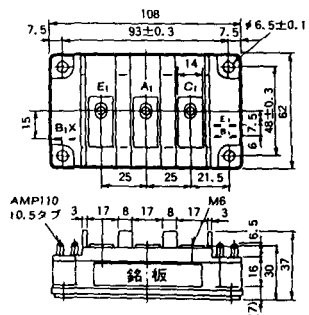
M-8A2B



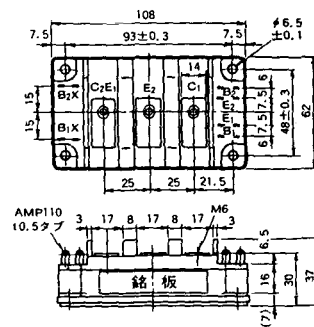
M-8B2A



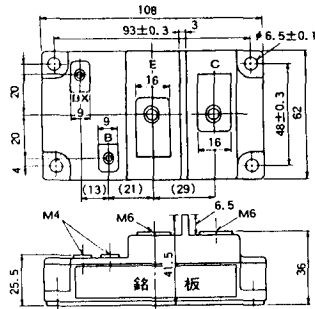
M-9A1A



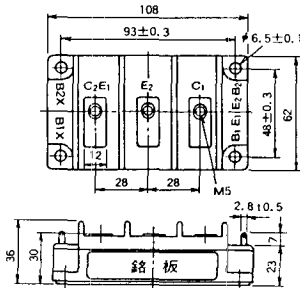
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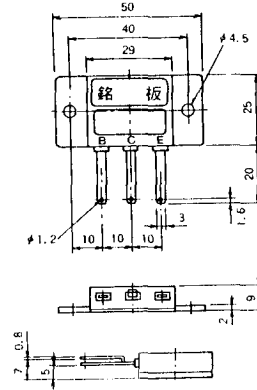
M-9B1A



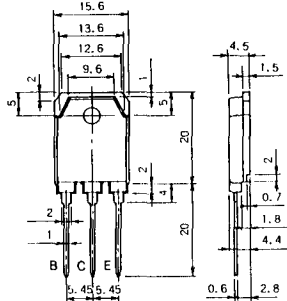
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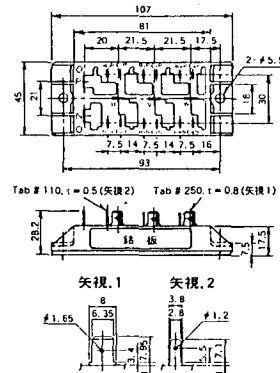
M-1A1B



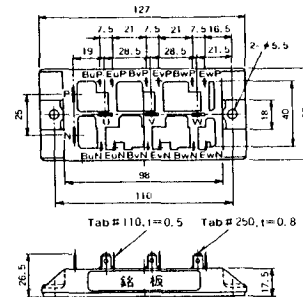
M-1A1C



M-2E6B

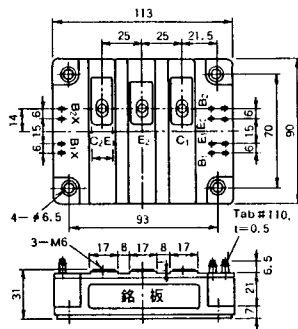


M-2E6C

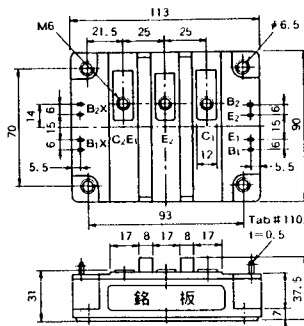




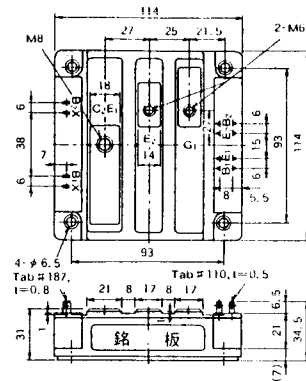
M-10A2A



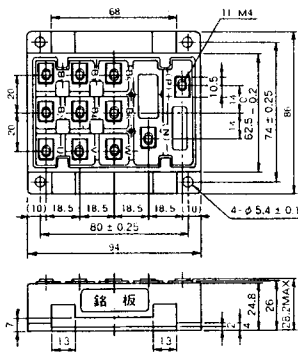
M-10A2B



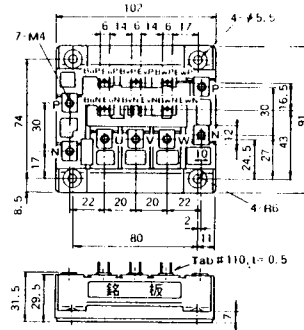
M-11A2A



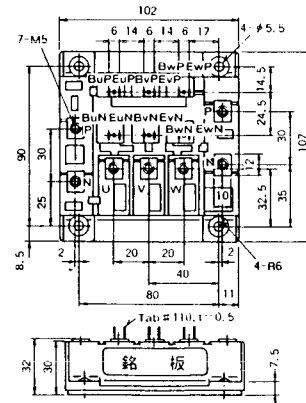
M-12A6A



M-12B6A

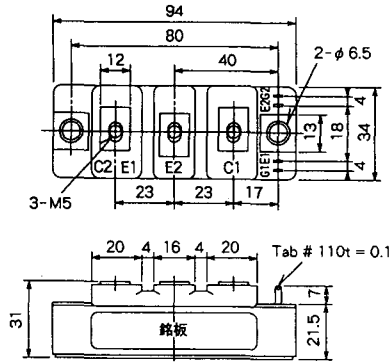


M-12B6B

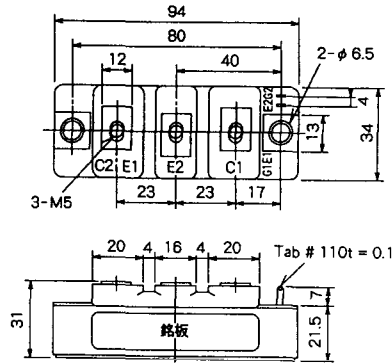




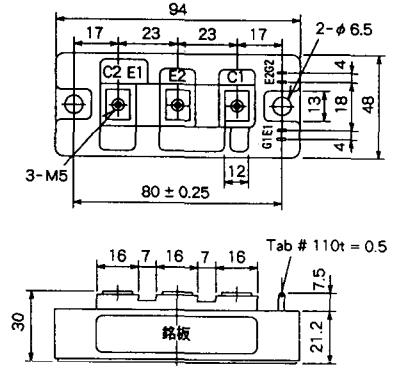
### M-4A2D



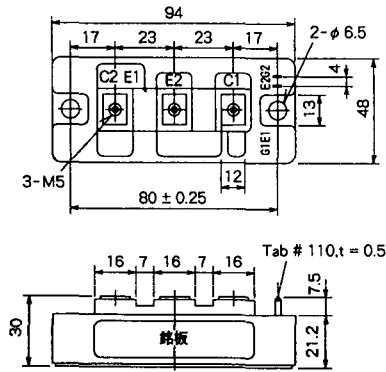
### M-4A2E



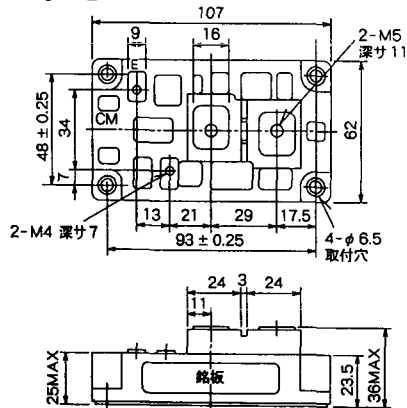
### M-4C2A



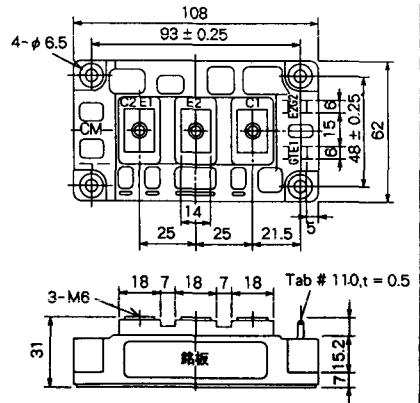
### M-4C2B



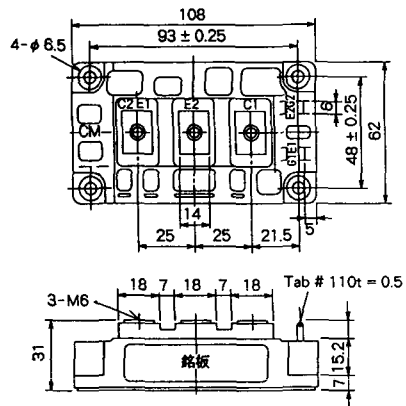
### M-9B1C



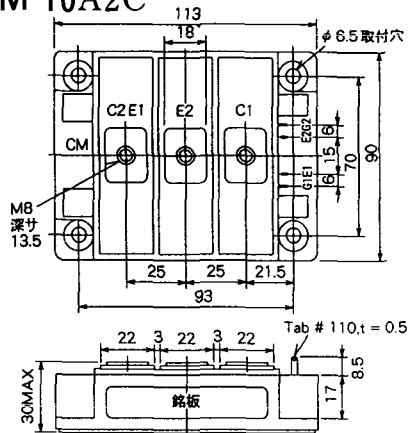
### M-9D2A



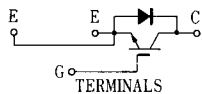
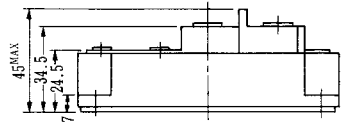
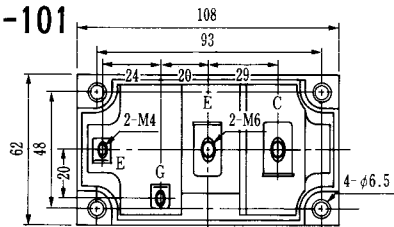
M-9D2B



M-10A2C



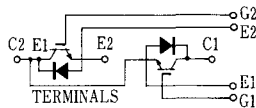
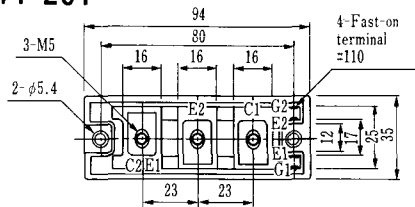
H-101



Weight :480g

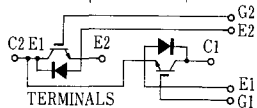
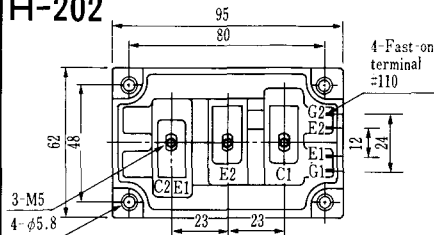
TERMINALS

### H-201



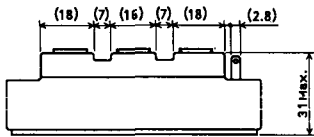
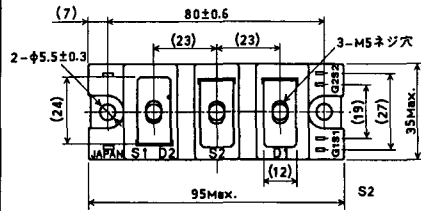
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

