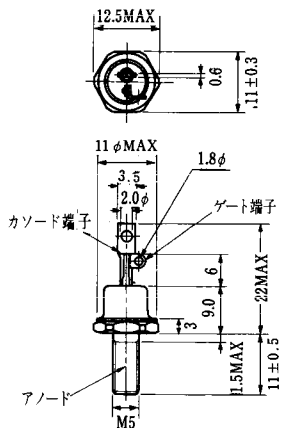


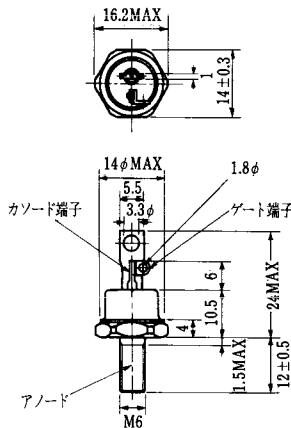
SG1000R22			■外形図番号 T-34 (13-66A1A)							
○ピーク線返しオフ電圧 1300V, 実効オン電流 250A			■電気的特性							
■最大定格			*1 スナバ回路, $R_s=20\Omega$ , $C_s=2\mu\text{F}$							
*2 $R_{GK}=20\Omega$										
記号	SG1000R22		単位		記号	測定条件	Min	Typ	Max	単位
$V_{RRM}$	100		V		$I_{RRM}$	$T_j=115^\circ\text{C}$ , $V_D=V_{RRM}^{*2}$			50	mA
$V_{DRM}$	1300		V		$I_{DRM}$	$T_j=115^\circ\text{C}$ , $V_D=V_{DRM}^{*2}$			50	mA
$I_{TQM}$	1000 *1		A		$V_{TM}$	$T_c=25^\circ\text{C}$ , $I_{TM}=1000\text{A}$			2.8	V
$I_{TRMS}$	250		A		$V_{GT}$	$T_c=25^\circ\text{C}$ , $V_D=12\text{V}$ ,			2.0	V
$I_{TSM}$	5000/5500 (50Hz/60Hz, 正弦半波1サイクル波高値)		A		$I_{GT}$	$R_L=1\Omega^{*2}$			350	mA
$I^2t$			A <sup>2</sup> S		$V_{GD}$	$T_c=115^\circ\text{C}$ , $V_D=\frac{1}{2}V_{DRM}^{*2}$	0.2			V
$di/dt$	200 ( $V_D=\frac{1}{2}V_{DRM}$ , $I_C=5\text{A}$ , $t_r\leq 1\mu\text{s}$ , $f=50\text{Hz}$ )		A/ $\mu\text{s}$		$I_{GD}$		10			mA
$P_{GFM}$	20		W		$V_{GQ}$	$I_r=1000\text{A}$ , $V_D=\frac{2}{3}V_{DRM}$		35		V
$P_{GRM}$	8000		W		$I_{GQ}$	$dv/dt=350\text{V}/\mu\text{s}$ , $T_c=110^\circ\text{C}$		250		A
$P_{GFAV}$	4		W		$dv/dt$	$T_j=115^\circ\text{C}$ , $V_D=\frac{2}{3}V_{DRM}^{*2}$	350			V/ $\mu\text{s}$
$V_{GRM}$	15		V		$I_H$	$T_c=25^\circ\text{C}$ , $R_L=2\Omega^{*2}$		5		A
$I_{GFM}$	10		A		$t_r$	$T_c=110^\circ\text{C}$ , $I_{TM}=1000\text{A}$			12	$\mu\text{s}$
$T_j$	115		°C		$I_{kv}$	$I_{GR}=250\text{A}$ , $V_D=\frac{2}{3}V_{DRM}$			15	$\mu\text{s}$
$T_{JE}$	-40~115		°C		$di_g/dt$	$di_g/dt=30\text{A}/\mu\text{s}^{*1}$				
					$R_{th}$	接合部-フィン間, DC			0.04	°C/W

SG1000R, U, W, EX, 23				■外形図番号 T-47 (13-60E1A)									
○チョップパ, インバータ用				■電気的特性									
○400A, 1300V-2500V													
■最大定格													
記号	SG1000R23	SG1000U23	SG1000W23	SG1000EX23	単位		記号	測定条件	Min	Typ	Max	単位	
$V_{RRM}$	15				V		$I_{RRM}$	$T_j=125^\circ\text{C}$ , $V_D=V_{RRM}$			100	mA	
$V_{DRM}$	1300	1600	1800	2500	V		$I_{DRM}$	$T_j=125^\circ\text{C}$ , $V_D=V_{DRM}$ , $R_{GK}=20\Omega$			20	mA	
$I_{TQM}$	1000 ( $V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$ , $C_s=2\mu\text{F}$ , $R_s=20\Omega$ , $T_j=125^\circ\text{C}$ )				A		$V_{TM}$	$T_c=25^\circ\text{C}$ , $I_{TM}=1000\text{A}$			2.5	V	
$I_{TRMS}$	400 ( $T_j=70^\circ\text{C}$ )				A		$V_{GT}$	$T_c=25^\circ\text{C}$ , $V_D=24\text{V}$	0.85	1.2		V	
$I_{TSM}$	6500/7100 (50Hz/60Hz, 正弦半波1サイクル)				A		$I_{GT}$	$R_L=1\Omega$			600	1000	mA
$I^2t$					A <sup>2</sup> S		$V_{GD}$	$T_c=125^\circ\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$	0.3			V	
$di/dt$	250 ( $I_{GP}=18\text{A}$ , $t_r=1\mu\text{s}$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{TM}=1000\text{A}$ , $f=50\text{Hz}$ , $T_j=125^\circ\text{C}$ )				A/ $\mu\text{s}$		$I_{GD}$		5			mA	
$I_{GFM}$	40 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 20%)				A		$t_d$	$T_c=25^\circ\text{C}$ , $V_D=\frac{1}{2}V_{DRM}$ , $I_{GP}=18\text{A}$			2.0	$\mu\text{s}$	
$P_{GFAV}$	8				W		$t_{st}$	$I_{TM}=1000\text{A}$ , $di/dt=250\text{A}/\mu\text{s}$			8.0		
$I_{GRMS}$	50				A		$dv/dt$	$T_j=125^\circ\text{C}$ , $V_D=\frac{2}{3}V_{DRM}$ , $V_{GK}=-4\text{V}$	900			V/ $\mu\text{s}$	
$P_{GRM}$	8000 (パルス幅: max. 20 $\mu\text{s}$ , duty: max. 2%)				W		$I_H$	$T_c=25^\circ\text{C}$ , $R_L=1\Omega$		10		A	
$V_{GRM}$	15				V		$t_r$	$T_c=120^\circ\text{C}$ , $I_{TM}=1000\text{A}$			16	$\mu\text{s}$	
$T_j$	125				°C		$t_{kv}$	$V_D=\frac{1}{2}V_{DRM}$ , $V_{DM}=\frac{2}{3}V_{DRM}$			18	$\mu\text{s}$	
$T_{JE}$	-40~125				°C		$t_{val}$	$C_s=2\mu\text{F}$ , $R_s=20\Omega$			60		
							$I_{GR}$	$di_g/dt=-30\text{A}/\mu\text{s}$		240	280	A	
							$R_{th}$	接合部-フィン間, DC			0.05	°C/W	

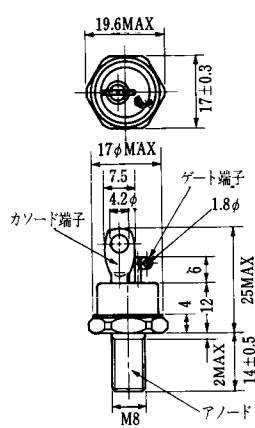
FD-1



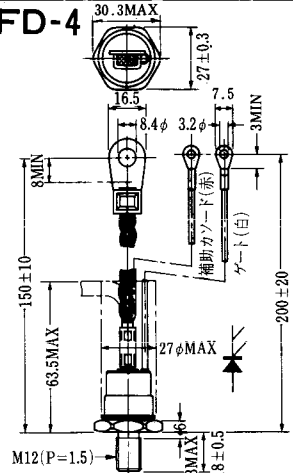
FD-2



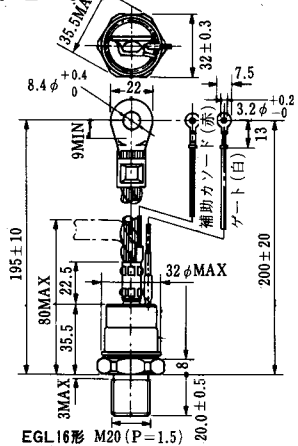
FD-3



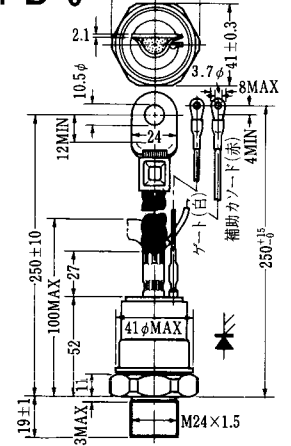
FD-4



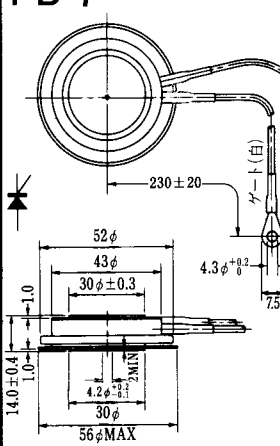
FD-5



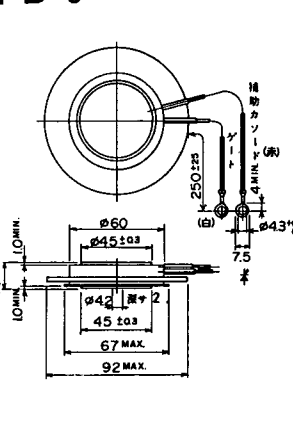
FD-6



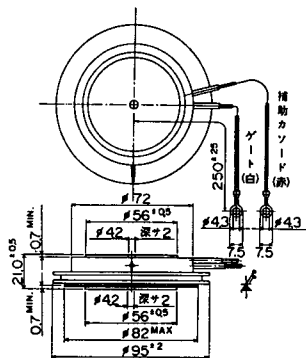
FD-7



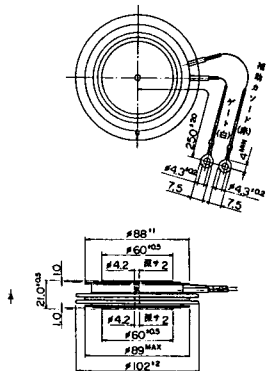
FD-8



FD-9

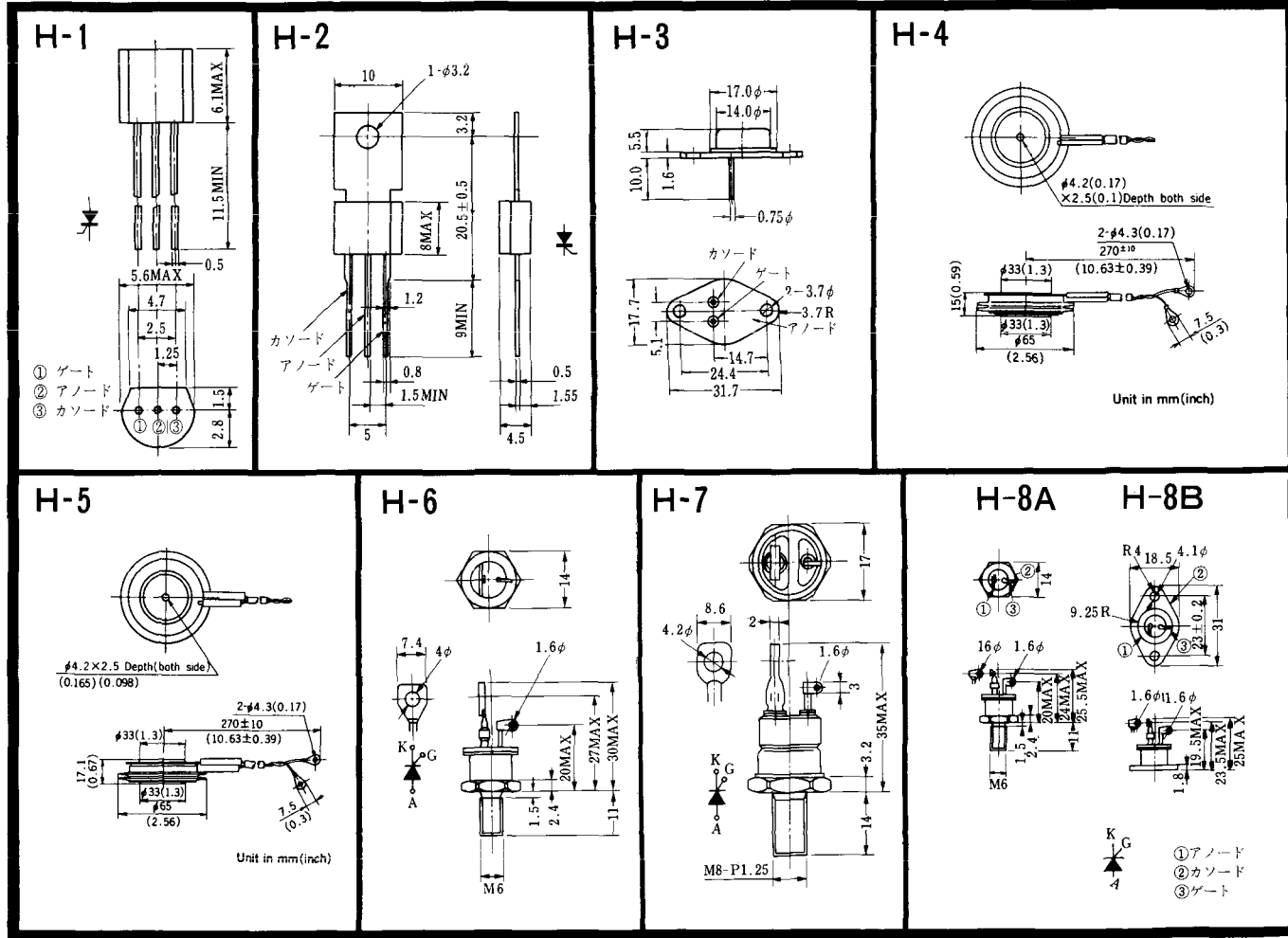


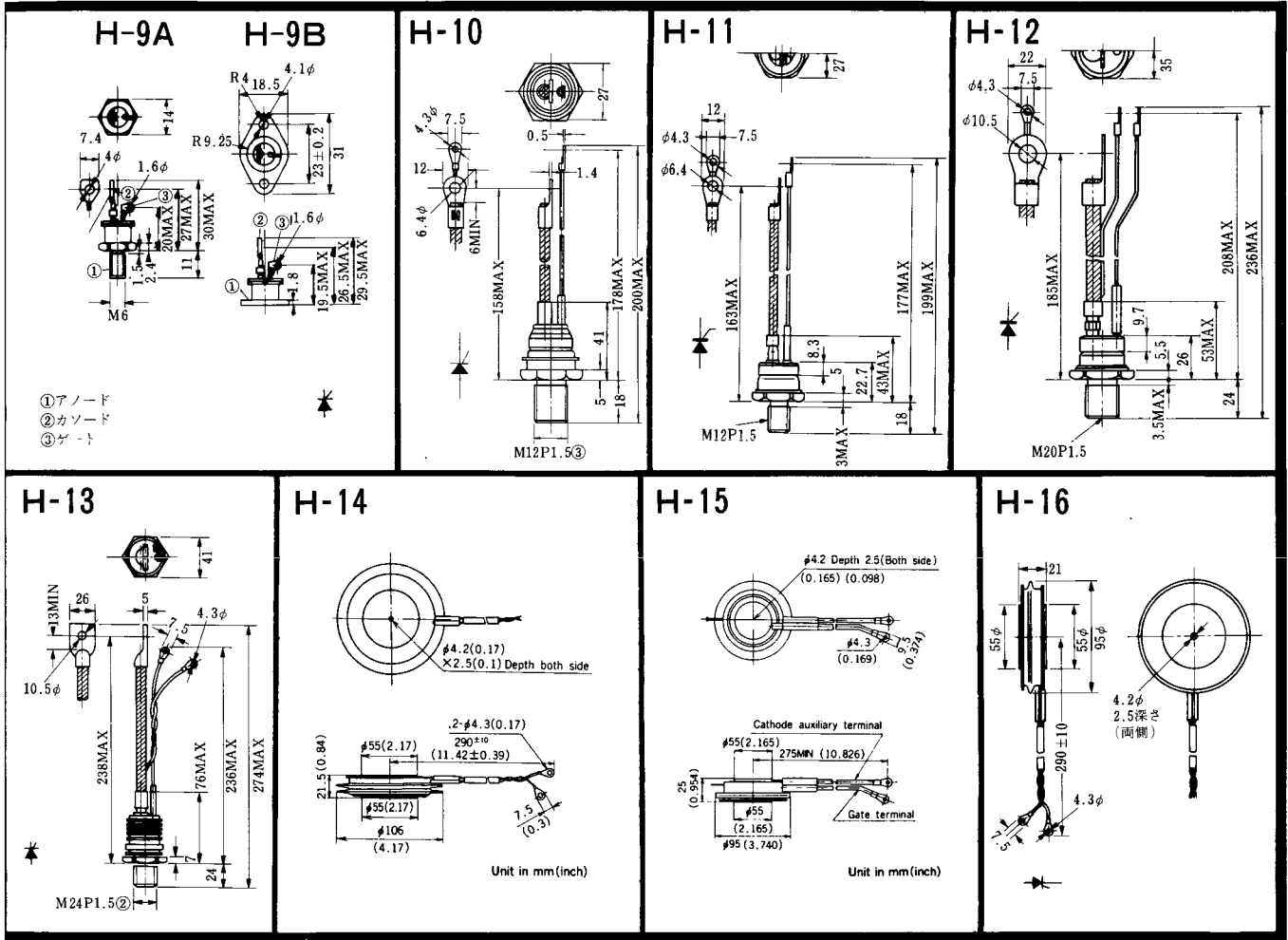
FD-10



FD-11

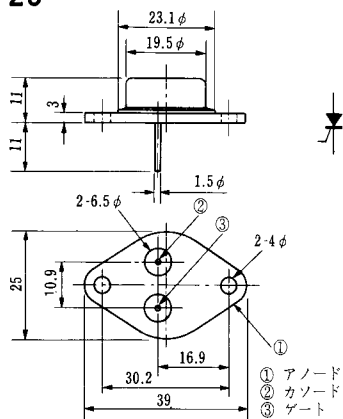
FD-12



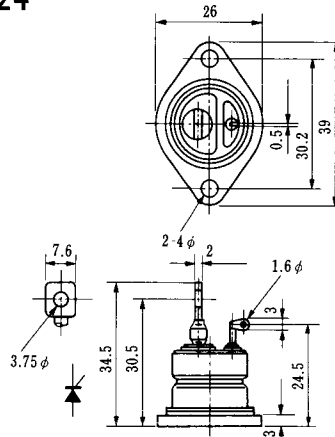




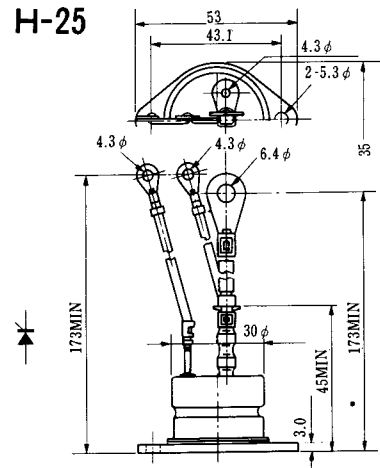
### H-23



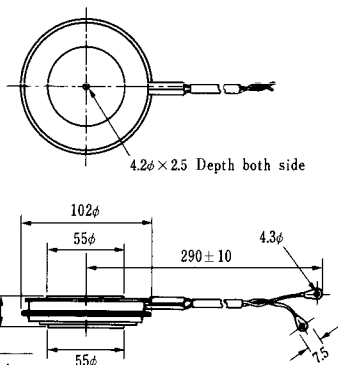
### H-24



### H-25



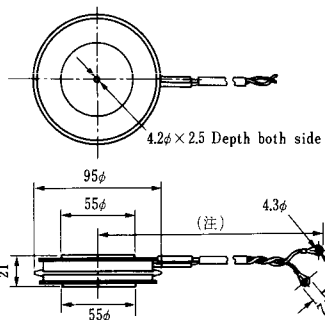
### H-26



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

### H-27

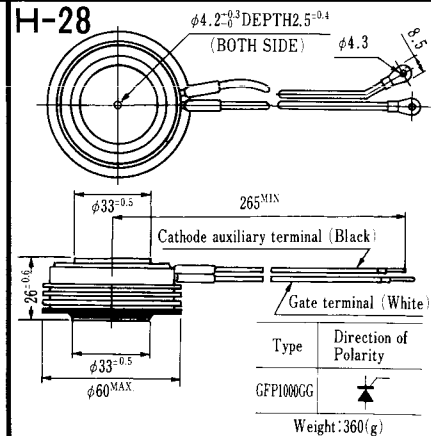


Type	Direction of polarity
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CF11V	
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(注) CC11V : 400 ± 10  
CF11V : 250 ± 10

### H-28

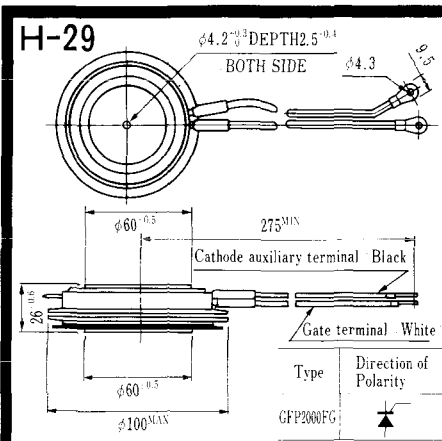


Type	Direction of Polarity
------	-----------------------

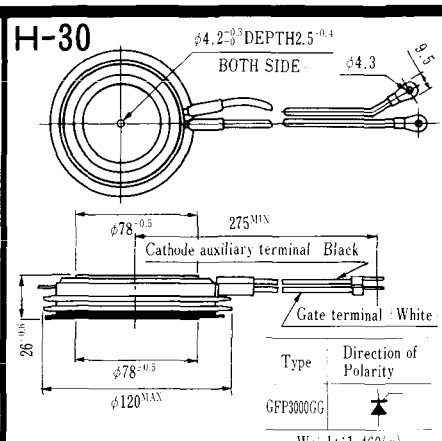
GFP100GG	
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Weight: 360(g)

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



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

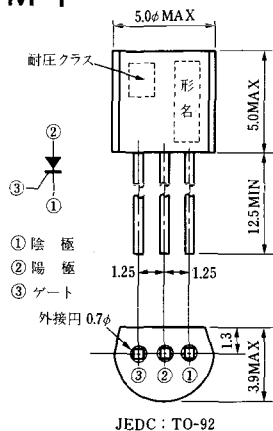


Note: The thickness is a dimension in press at the rated mounting force. Weight: 1,460(g)

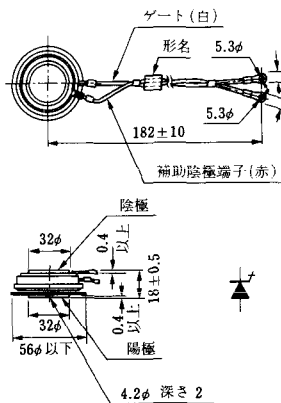




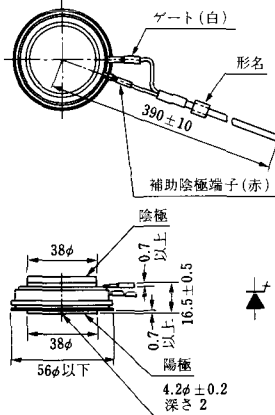
### M-1



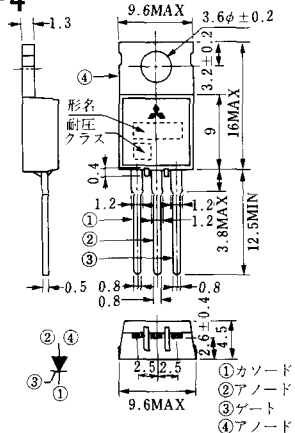
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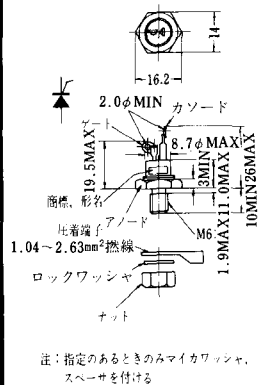
### M-3



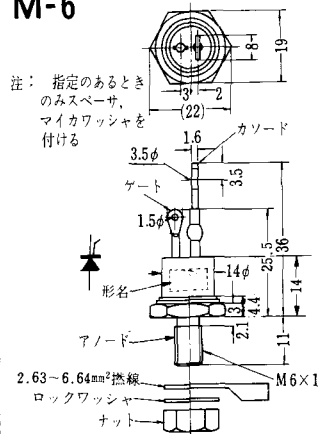
### M-4



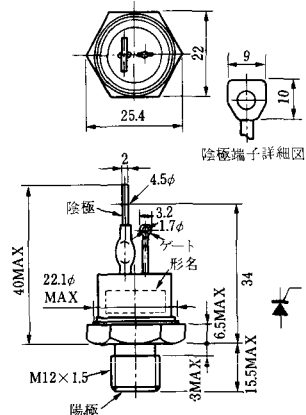
### M-5



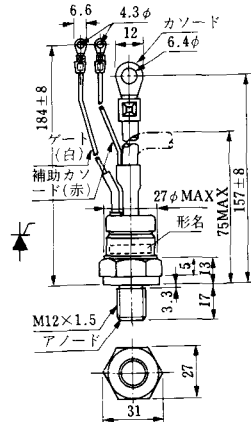
### M-6



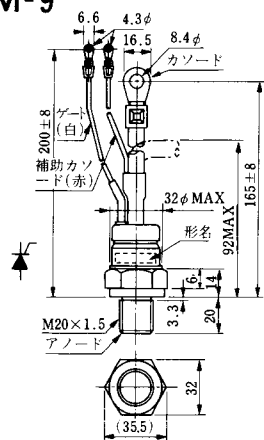
### M-7



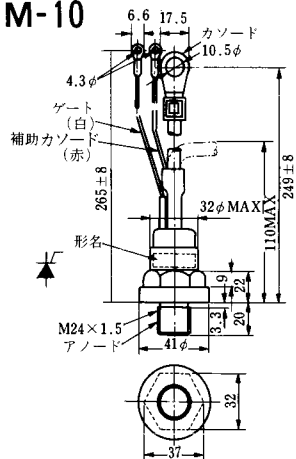
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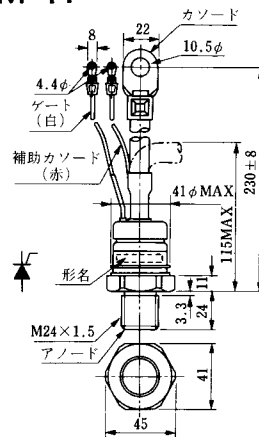
M-9



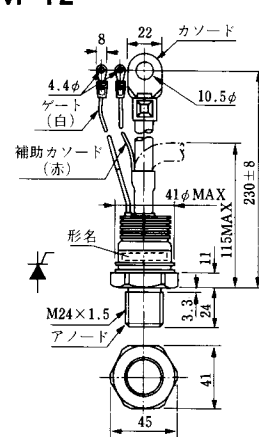
M-10



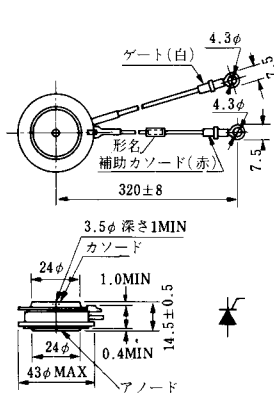
M-11



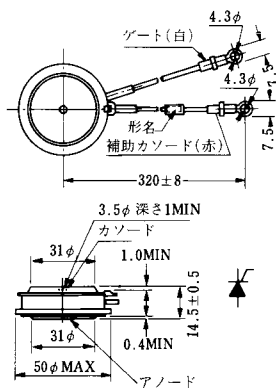
M-12



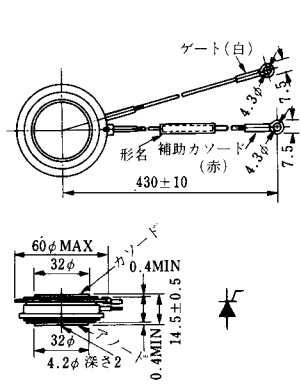
M-13



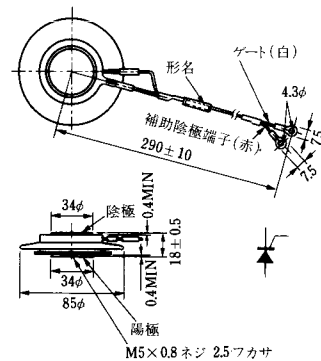
M-14

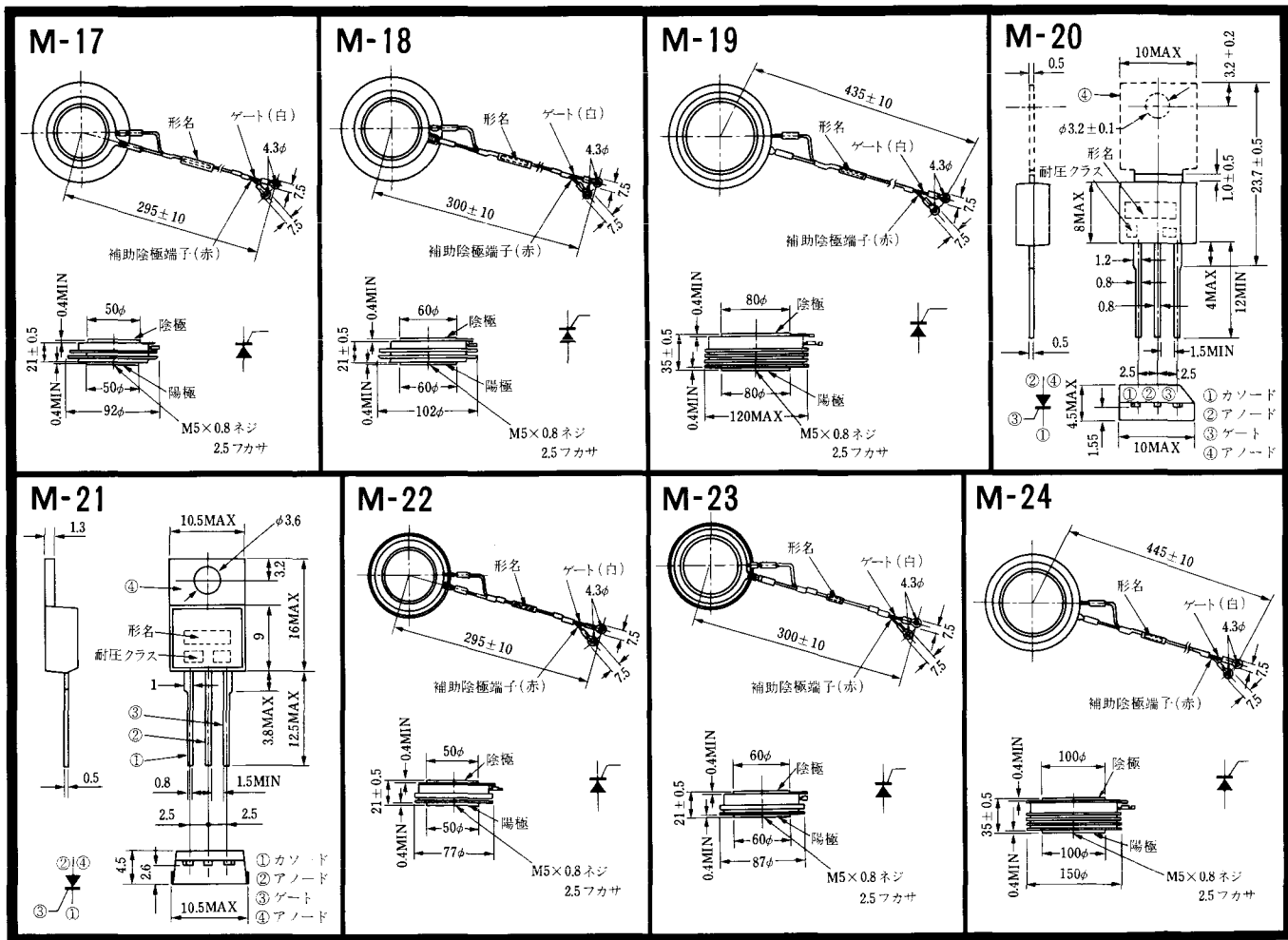


M-15

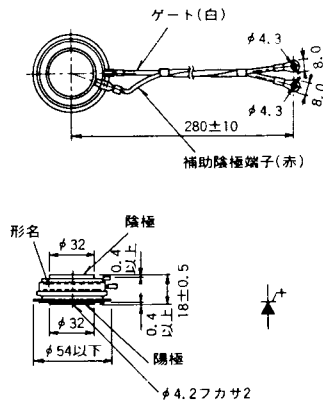


M-16

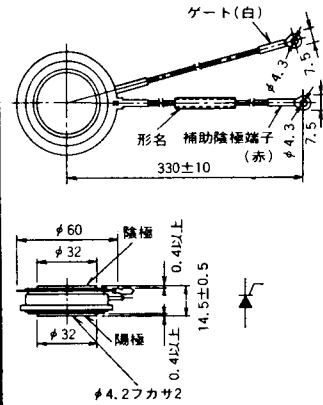




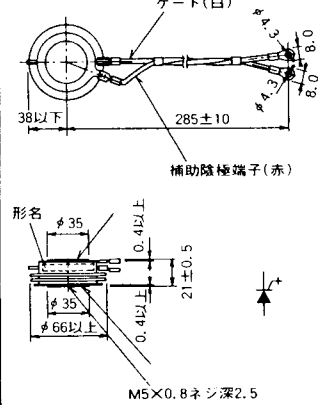
M-25



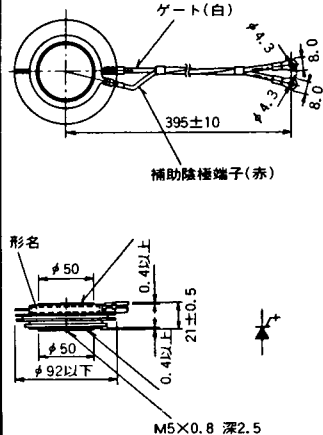
M-26



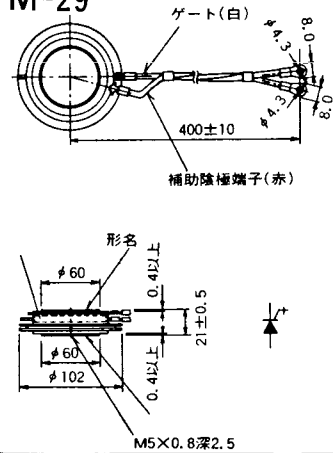
M-27



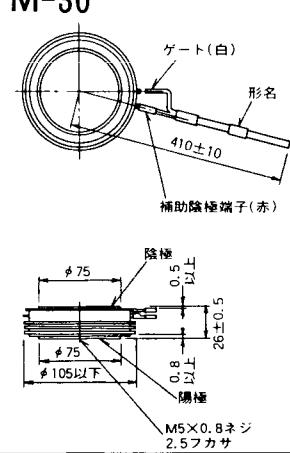
M-28



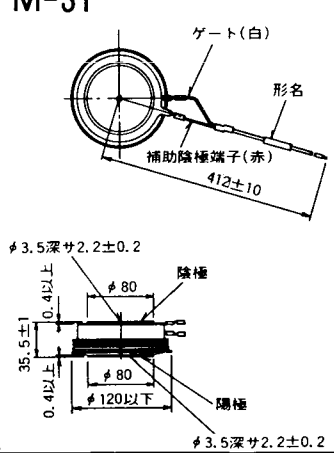
M-29



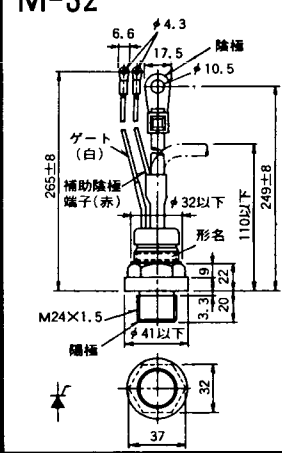
M-30



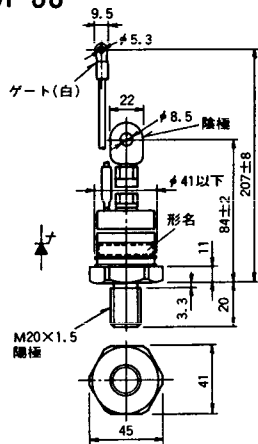
M-31



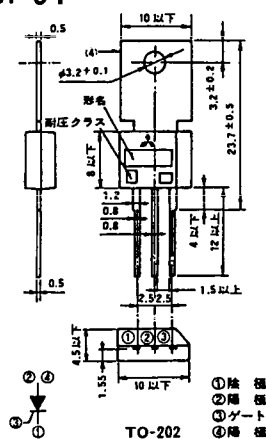
M-32



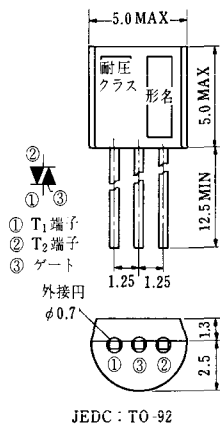
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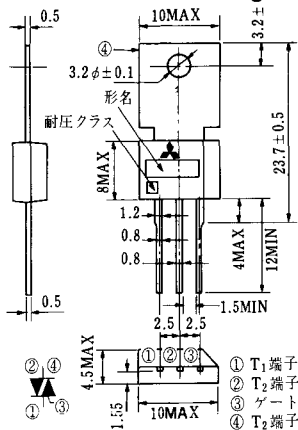
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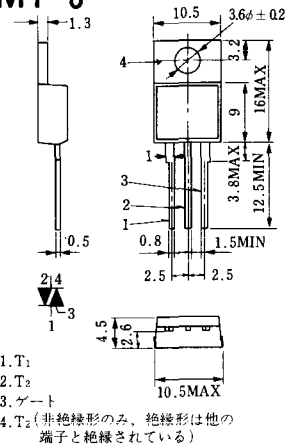
### MT-1



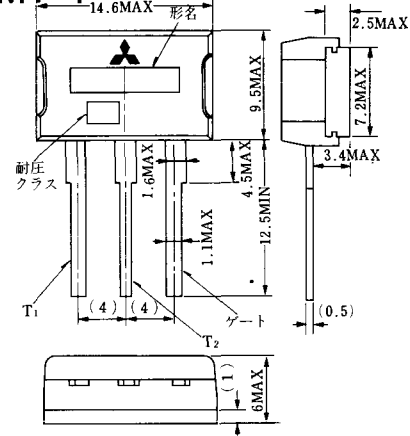
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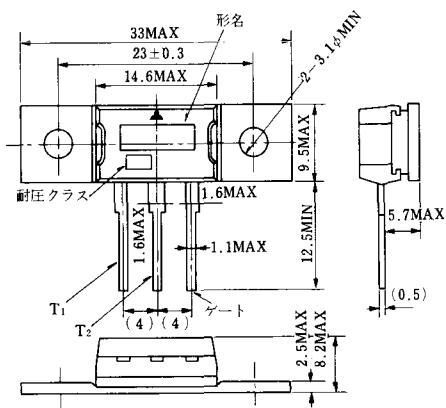
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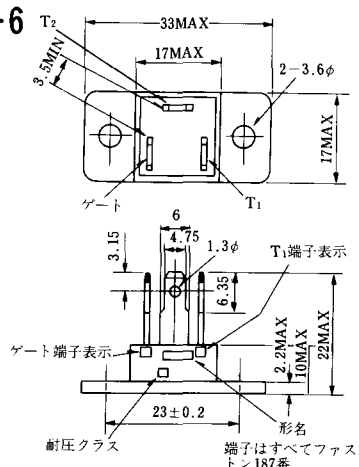
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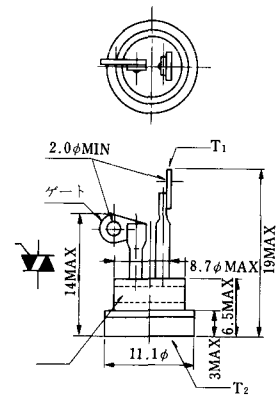
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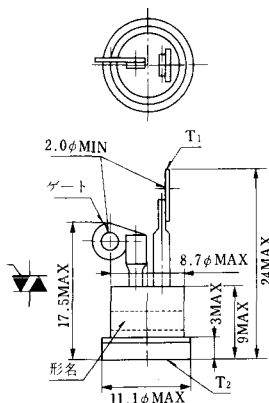
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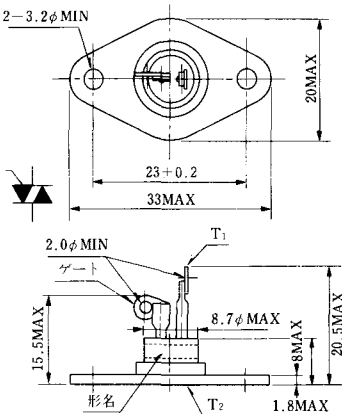
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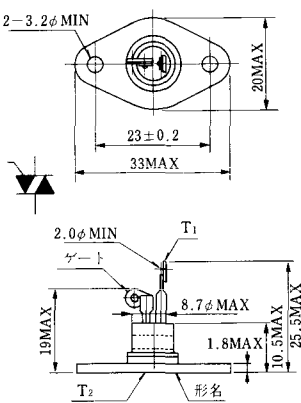
MT-8



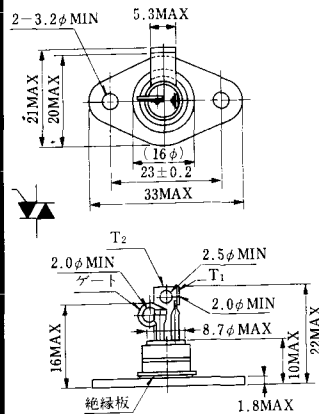
MT-9



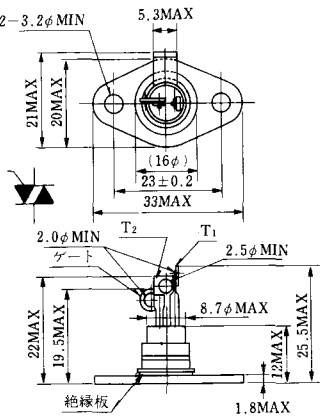
MT-10



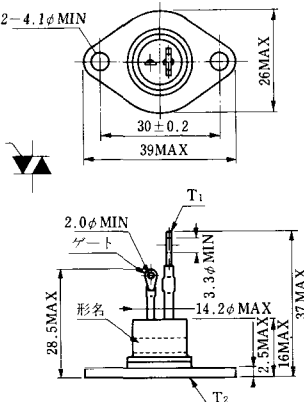
MT-11



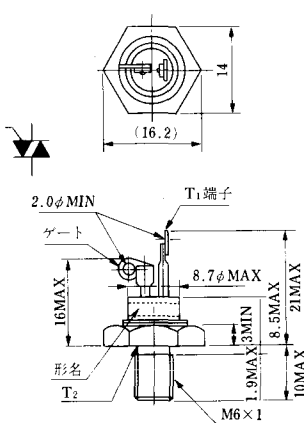
MT-12



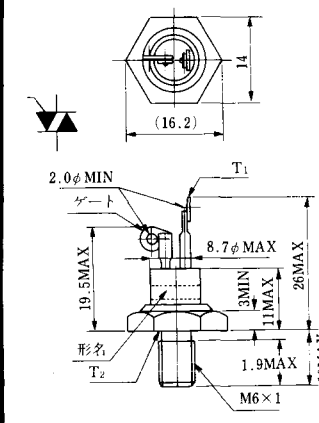
MT-13



MT-14

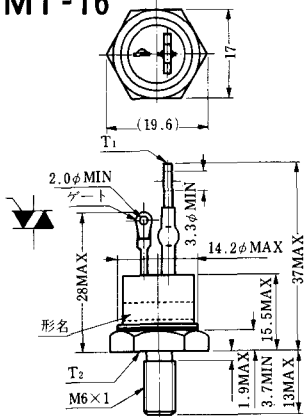


MT-15

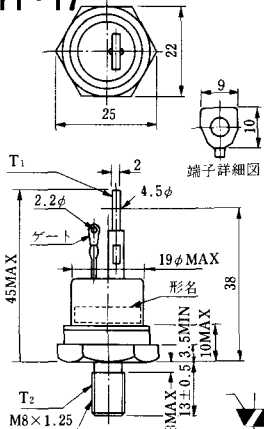




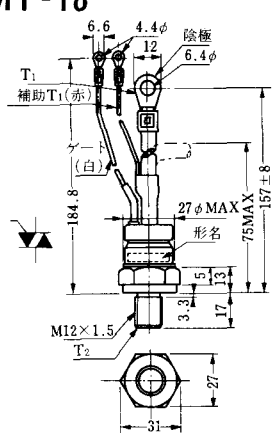
MT-16



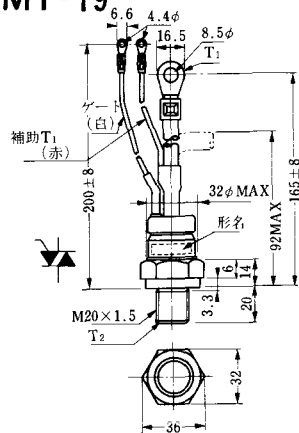
MT-17



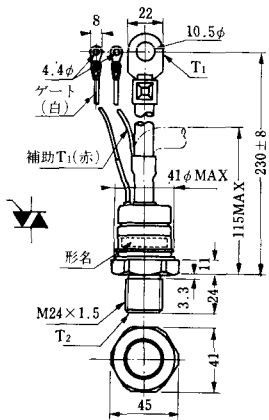
MT-18



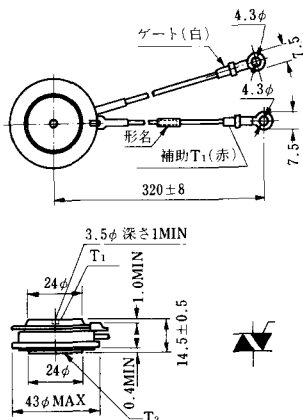
MT-19



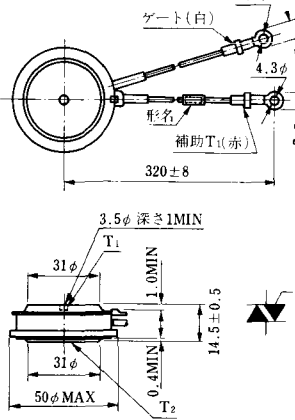
MT-20



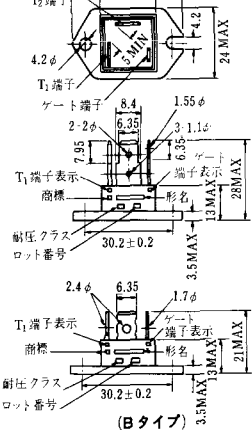
MT-21



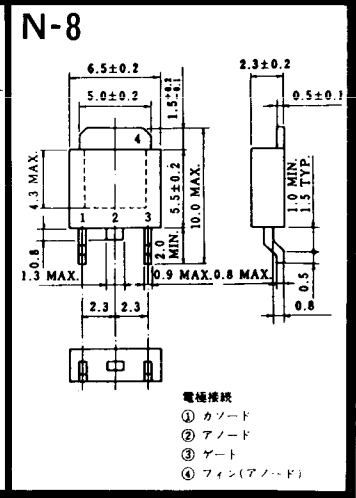
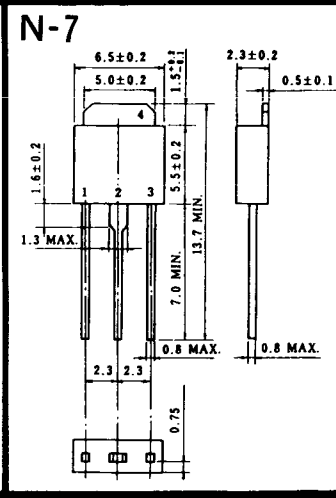
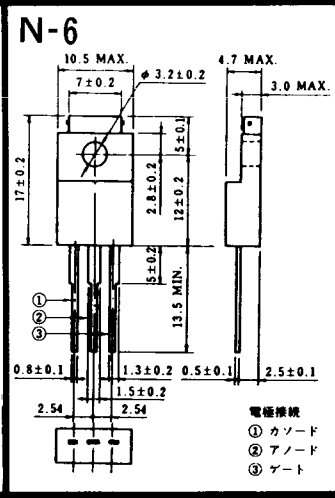
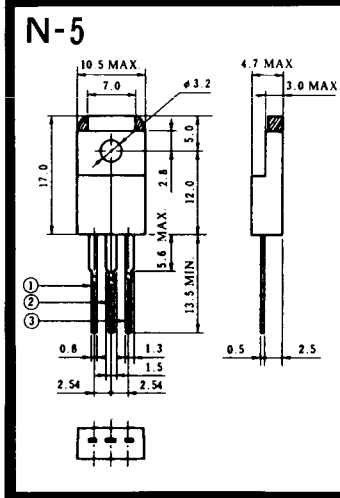
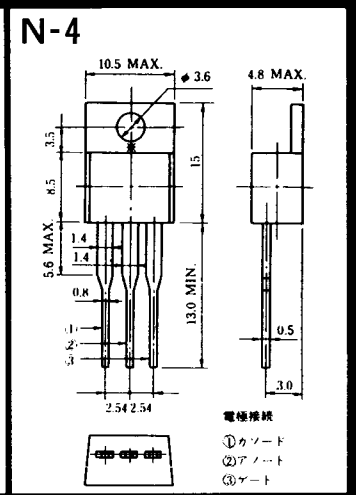
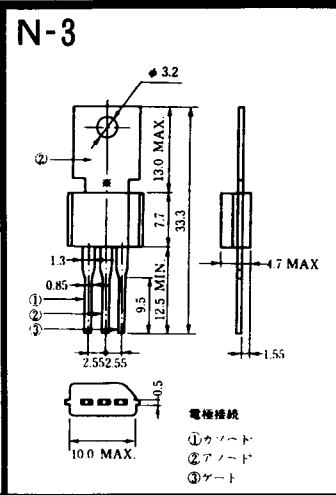
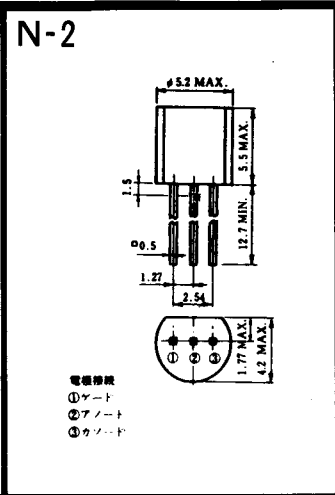
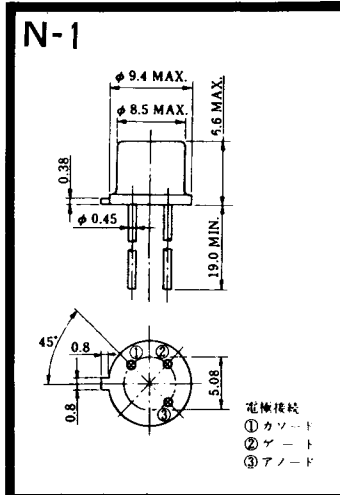
MT-22



MT-23



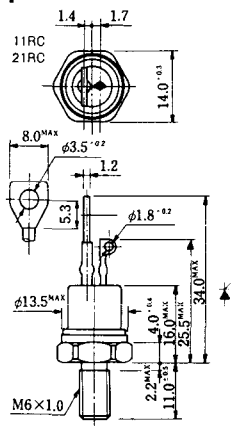






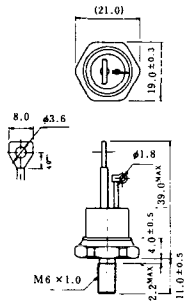


### NI-1



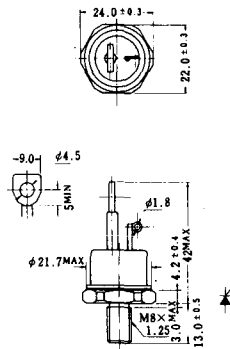
### NI-2

29RD



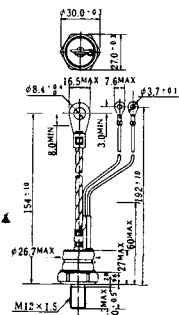
### NI-3

39RC  
59RC  
39RF  
59RF



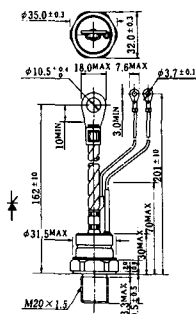
### NI-4

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



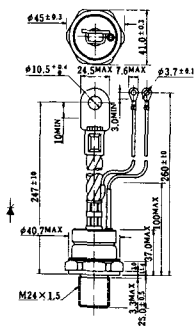
### NI-5

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



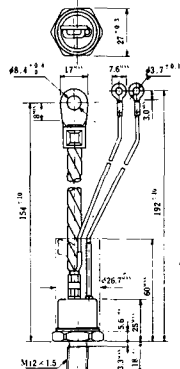
### NI-6

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



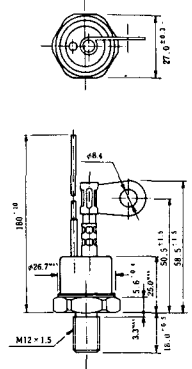
### NI-7

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

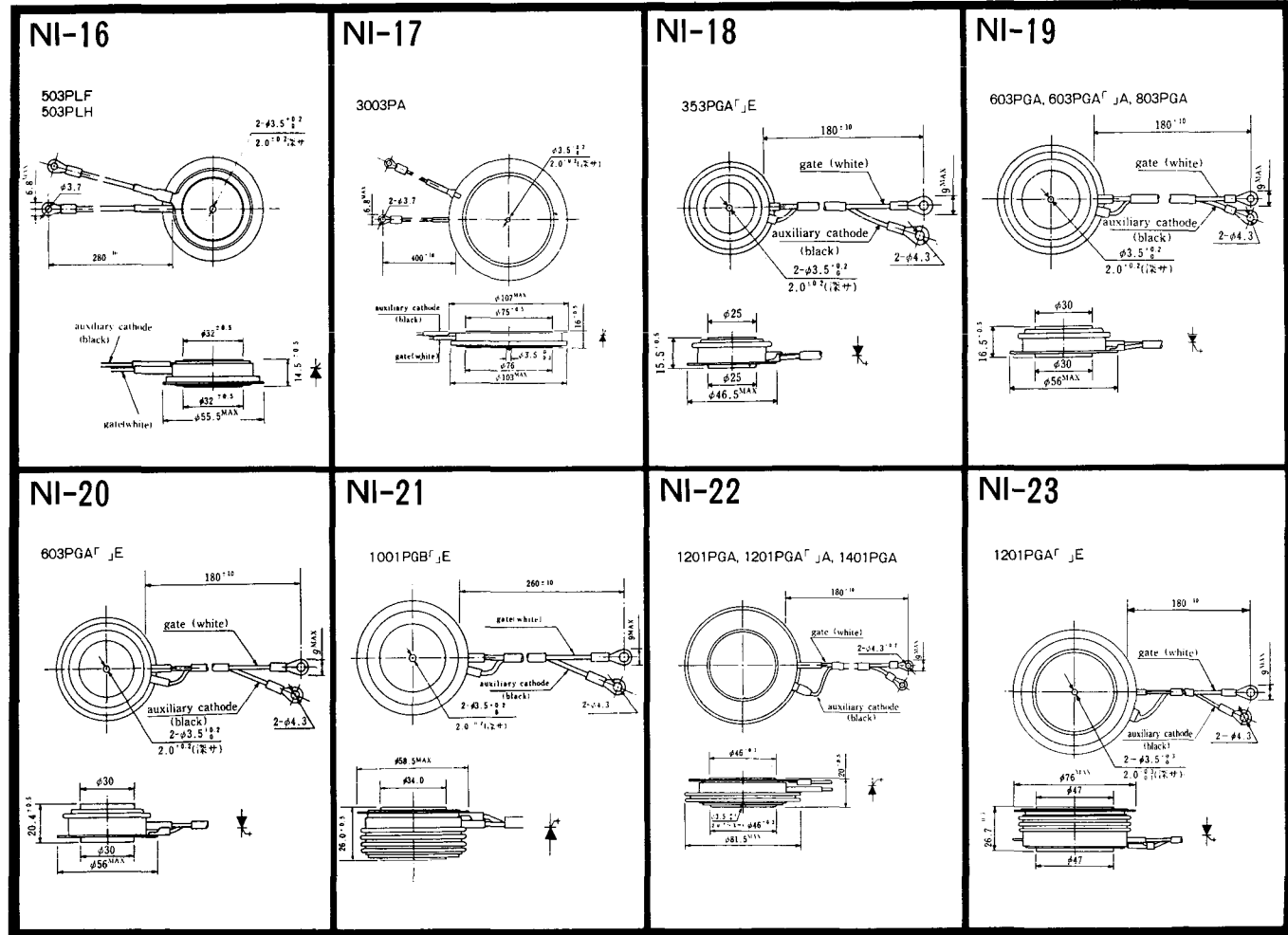


### NI-8

89RW  
129RW



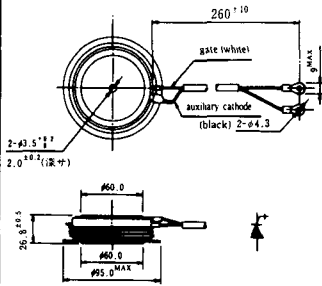






NI-24

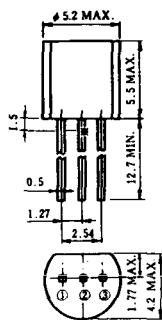
2001PGB<sup>r</sup> JE



NI-25

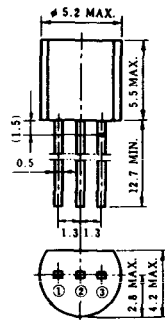
NI-26

### NT-1



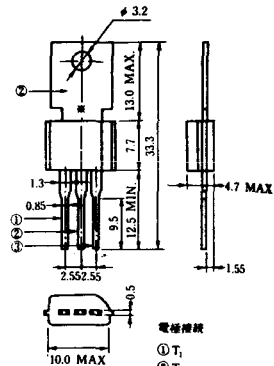
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-2



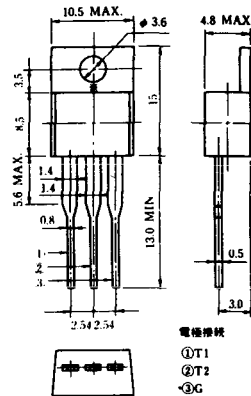
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-3



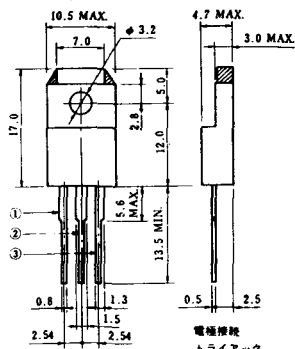
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート

### NT-4



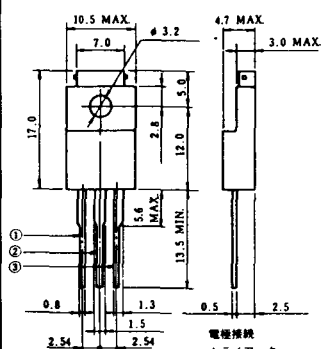
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G

### NT-5



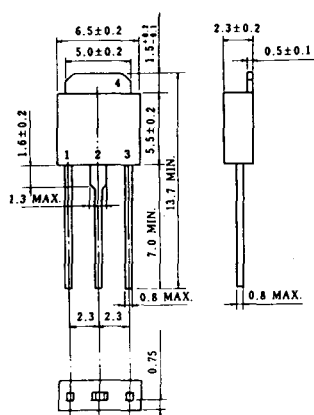
電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 4.2 g

### NT-6

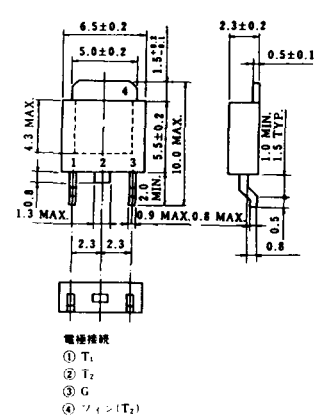


電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 4.2 g

### NT-7

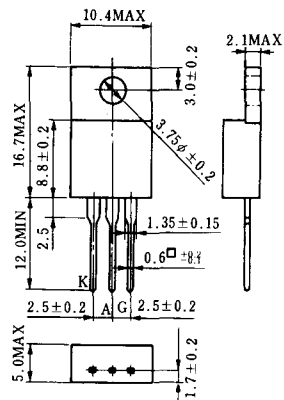


### NT-8

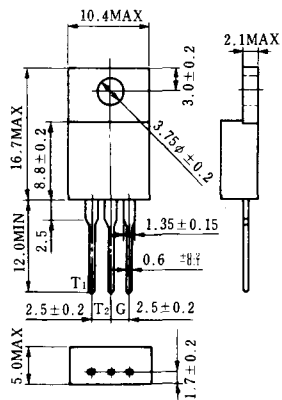


電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G  
④ シェン(T<sub>2</sub>)

### S-1



### ST-1

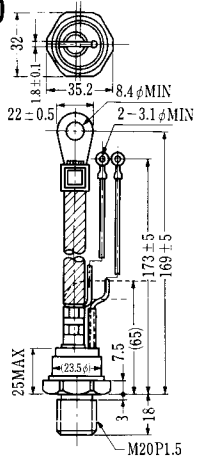




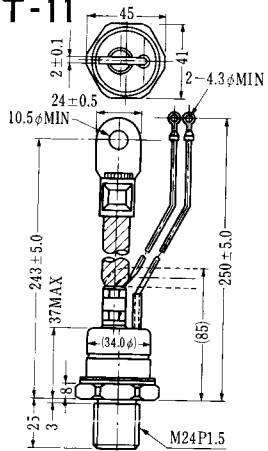




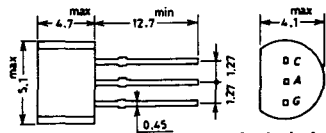
SAT-10



SAT-11

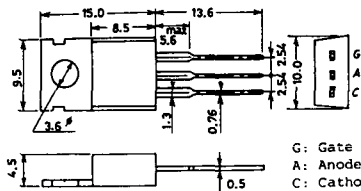


### SY-1 (1096A)



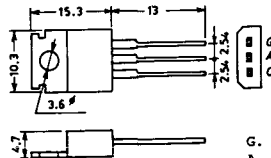
C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



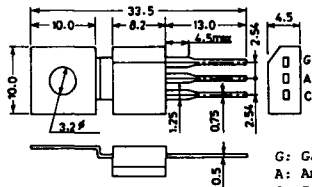
G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

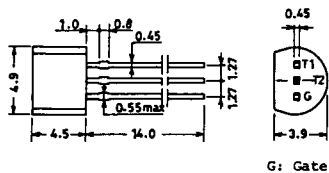
### SY-4 (1150)



G: Gate  
A: Anode  
C: Cathode

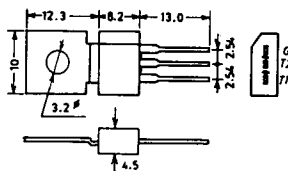


1097A

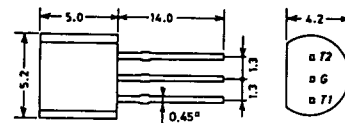


G: Gate

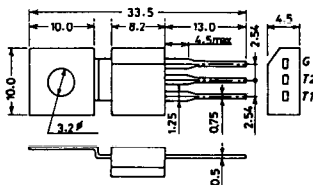
1102



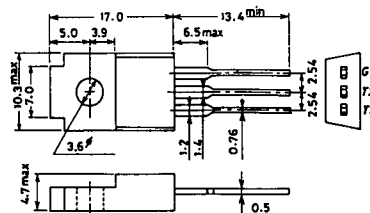
1141



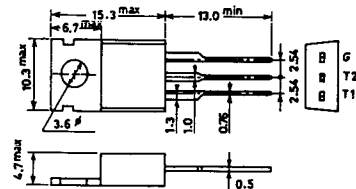
1142



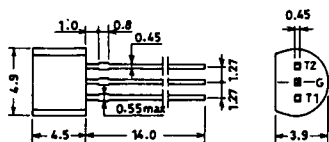
1144



1155

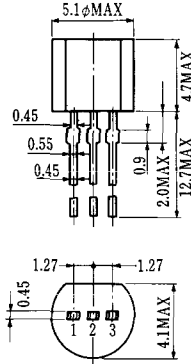


1192A



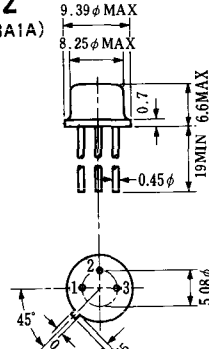
G: Gate

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



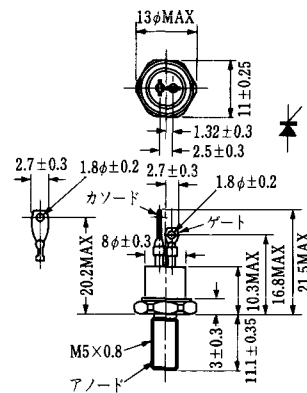
- 1 ゲート
- 2 アノード
- 3 カソード

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



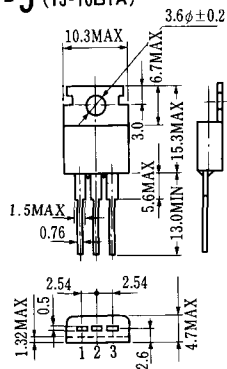
1. カソード
2. ゲート
3. アノード(ケース)

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



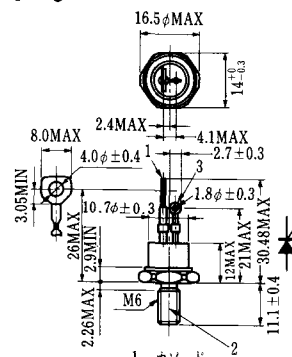
- 1 カソード
- 2 アノード
- 3 ゲート

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



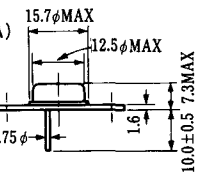
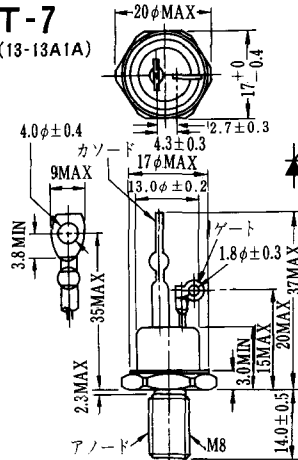
- 1 カソード
- 2 アノード
- 3 ゲート

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



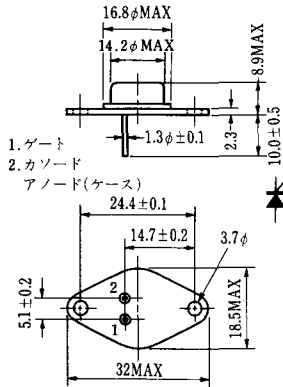
- 1 カソード
- 2 アノード
- 3 ゲート

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



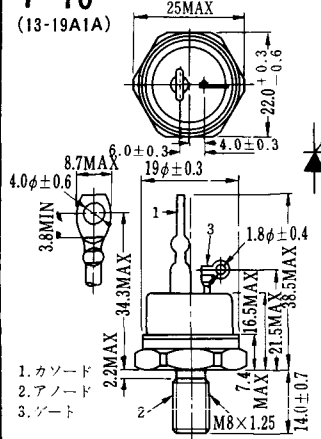
1. ゲート
2. カソード
3. アノード(ケース)

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



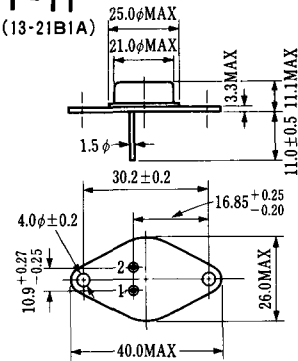
1. ゲート
2. カソード
- アノード(ケース)

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



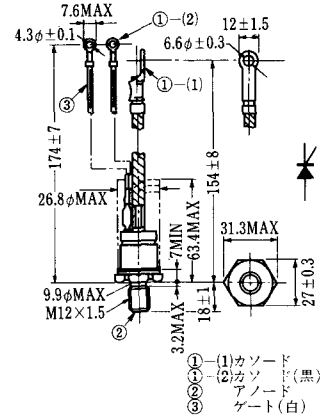
1. カソード
2. アノード
3. ゲート

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



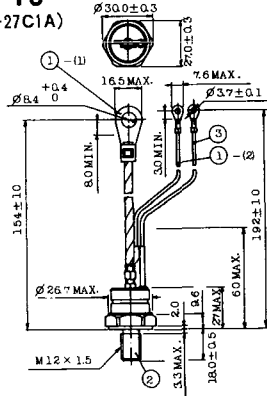
1. ゲート
2. カソード
- アノード(ケース)

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



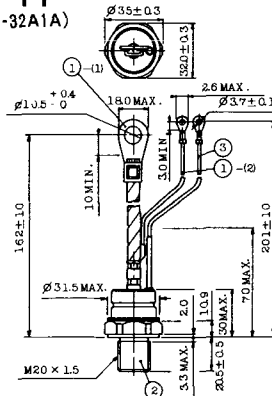
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



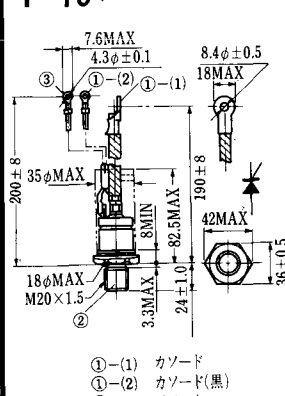
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



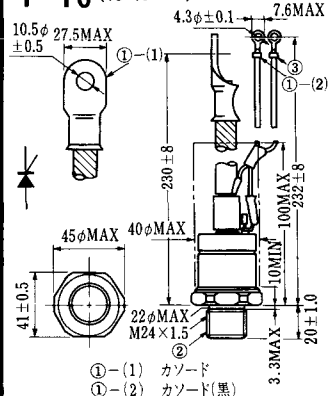
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



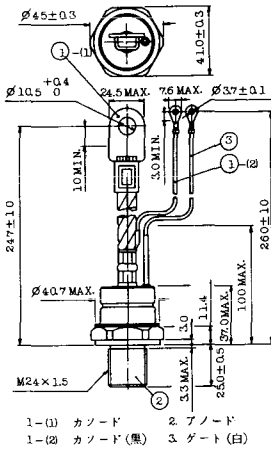
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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

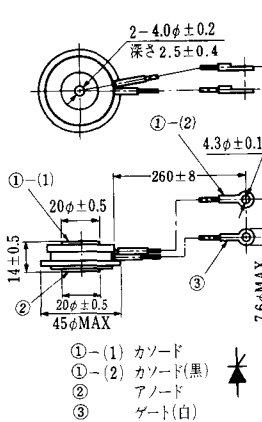


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

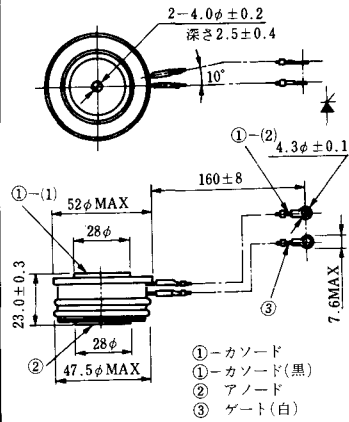
**T-17 (13-42A1A)**



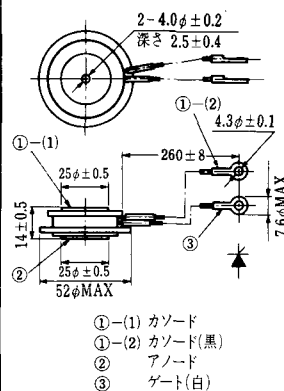
**T-18 (13-45D1A)**



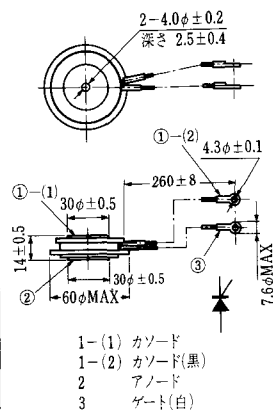
**T-19 (13-52B1A)**



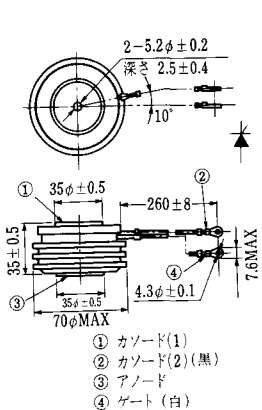
**T-20 (13-52C1A)**



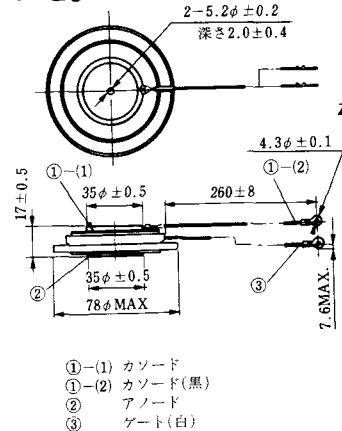
**T-21 (13-60A1A)**



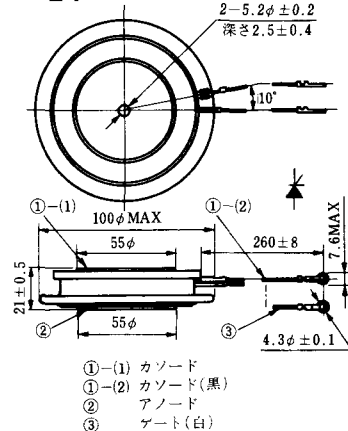
**T-22 (13-70C1A)**



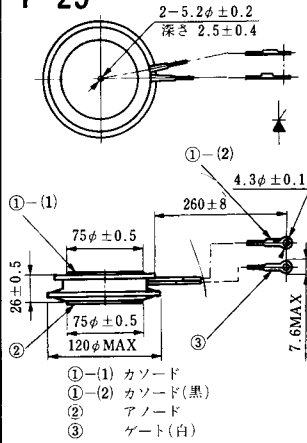
**T-23 (13-78A1A)**



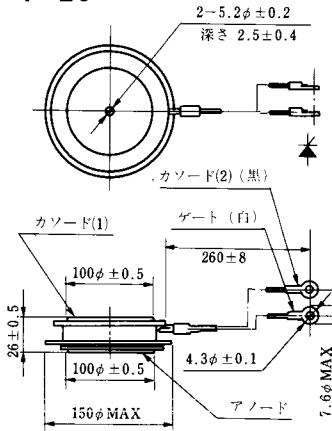
**T-24 (13-100C1A)**



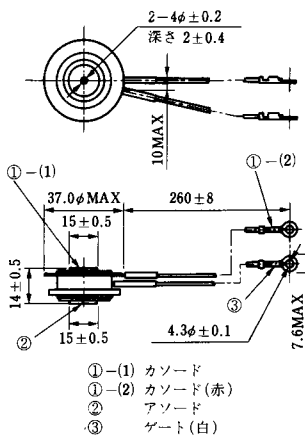
**T-25** (13-120A2A)



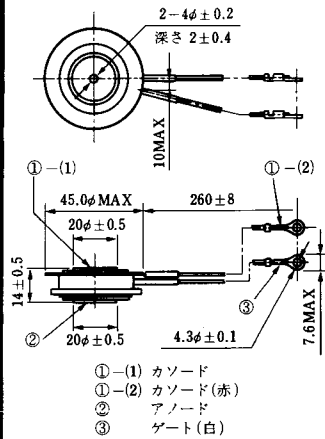
**T-26** (13-150A1A)



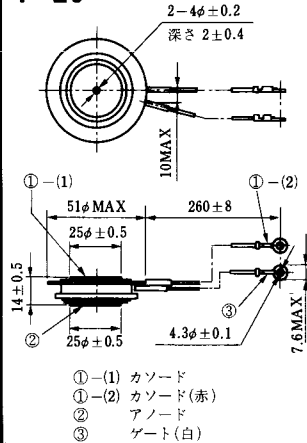
**T-27** (13-37A1A)



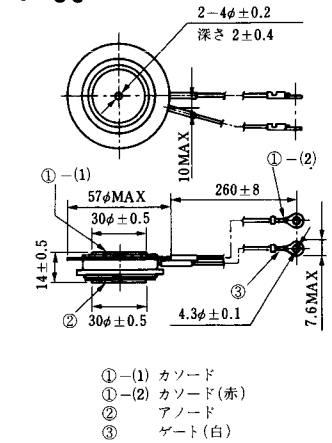
**T-28** (13-45E1A)



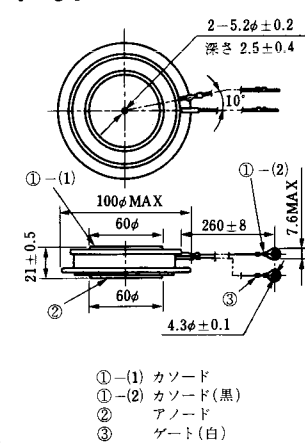
**T-29** (13-51A1A)



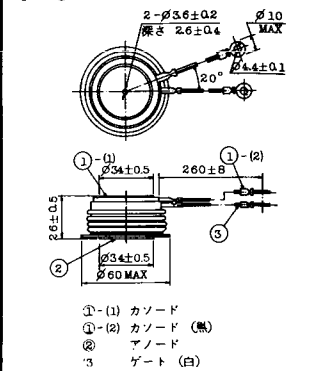
**T-30** (13-57A1A)



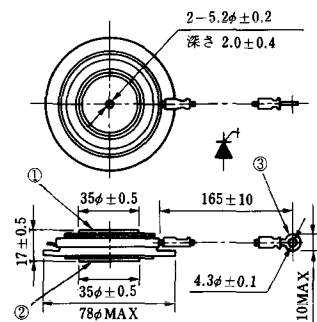
**T-31** (13-100E1A)



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

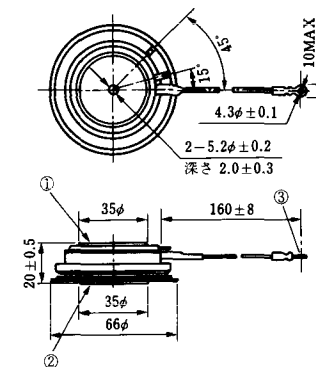


**T-33 (13-78B1A)**



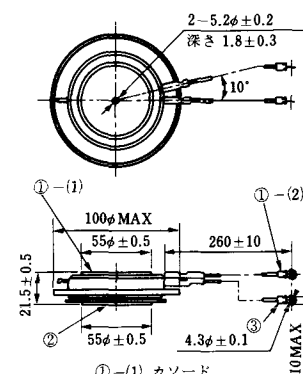
- ① カソード
- ② アノード
- ③ ゲート

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



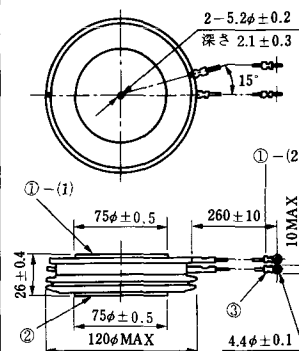
- ① カソード
- ② アノード
- ③ ゲート

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



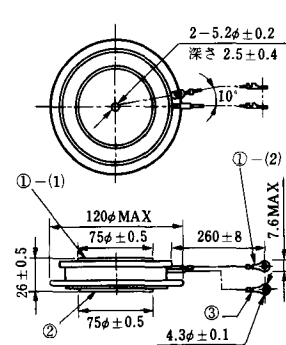
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



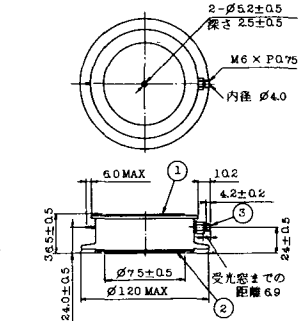
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



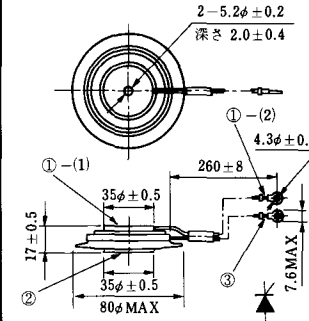
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



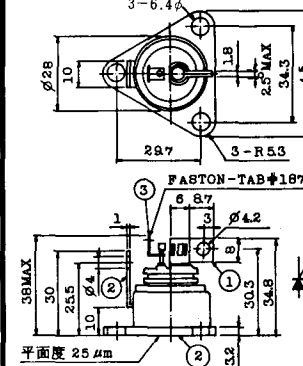
- ① カソード
- ② アノード
- ③ ゲート

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



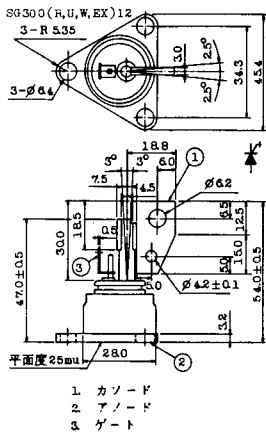
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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

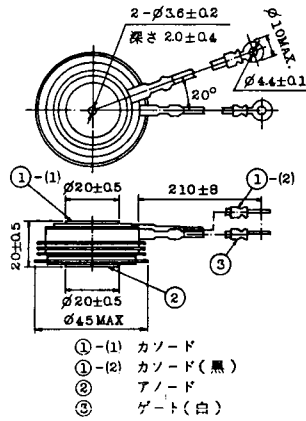


- 1. カソード
- 2. アノード
- 3. ゲート

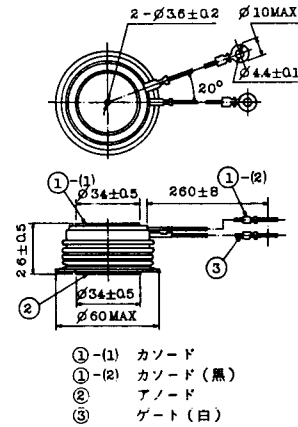
### T-41 (13-28A2A)



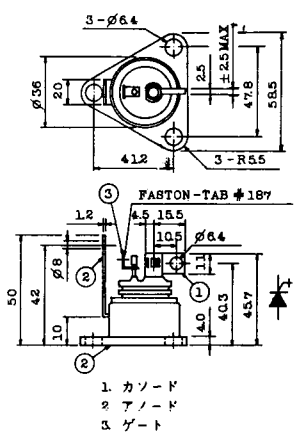
### T-42 (13-45F1A)



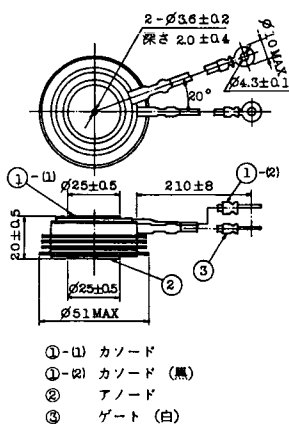
### T-43 (13-60E2A)



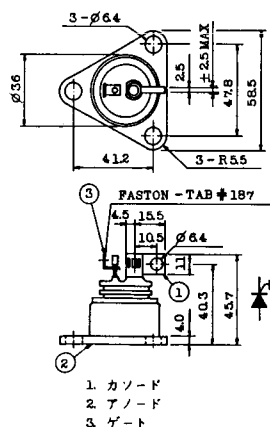
### T-44 (13-36A1A)



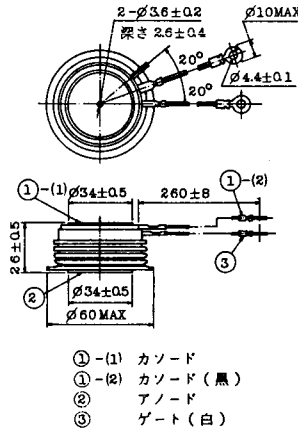
### T-45 (13-51B1A)



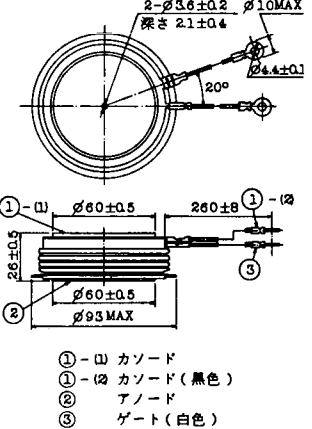
### T-46 (13-36B1A)



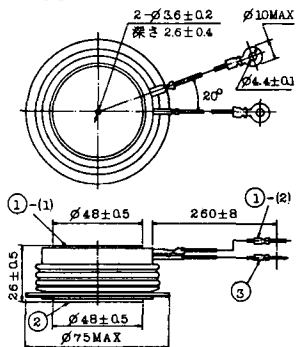
### T-47 (13-60E1A)



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

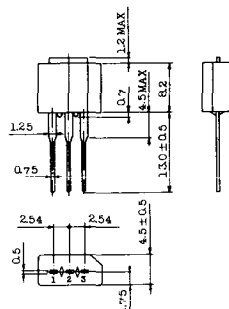


**T-49** (13-75A1A)



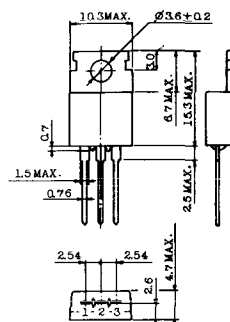
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

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



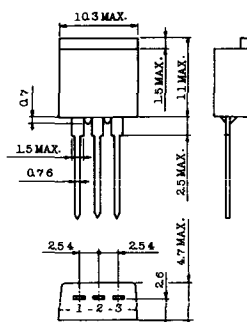
- 1 カソード
- 2 アノード
- 3 ゲート

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



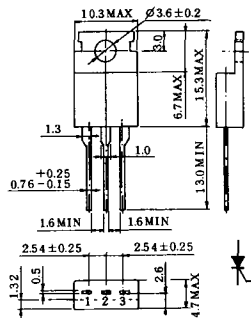
- 1 カソード
- 2 アノード
- 3 ゲート

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



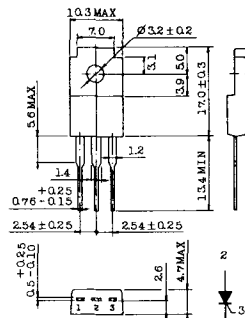
- 1 カソード
- 2 アノード
- 3 ゲート

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



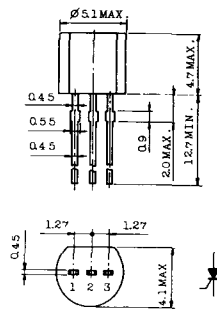
- 1 カソード
- 2 アノード
- 3 ゲート

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



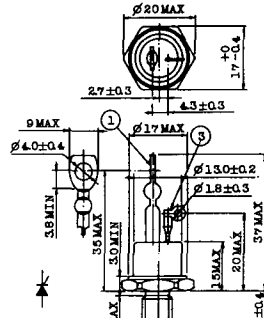
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 アノード

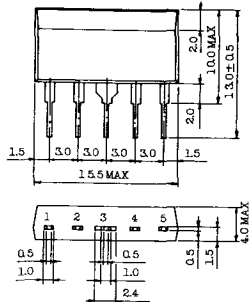
**T-56** (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

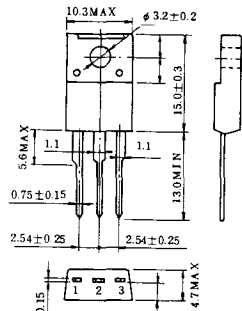


T-57 (12-16C1A)



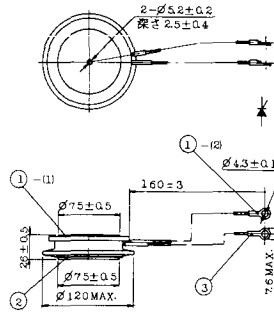
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



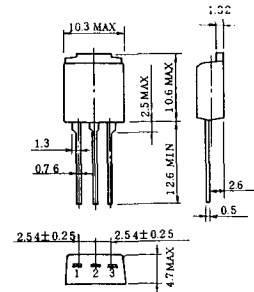
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



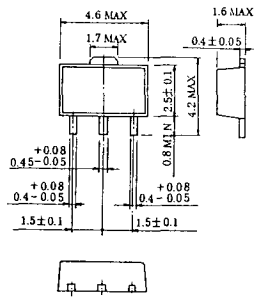
- 1-(1) カソード
- 1-(2) カソード (黒)
2. アノード
3. ゲート (白)

T-60



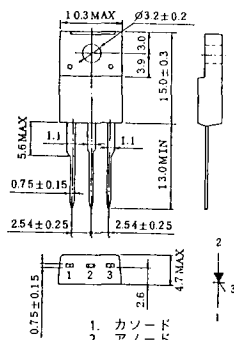
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



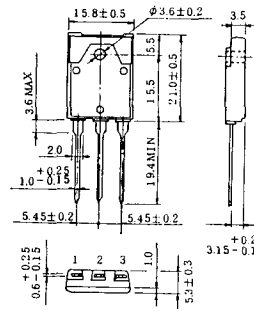
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



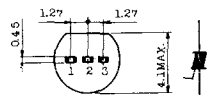
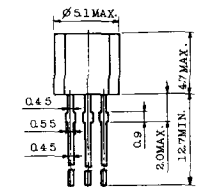
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



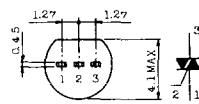
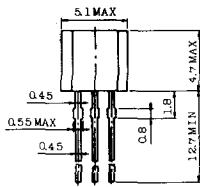
1. カソード
2. アノード
3. ゲート

TT-1



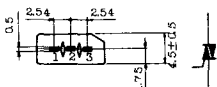
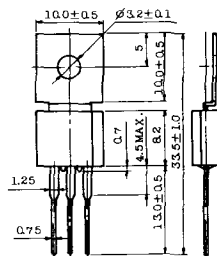
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



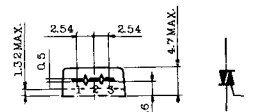
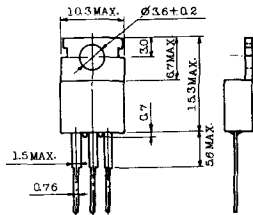
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



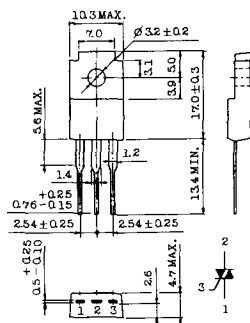
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



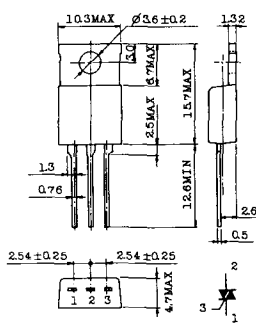
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



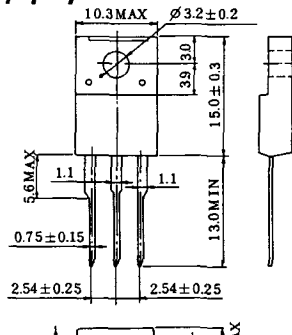
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



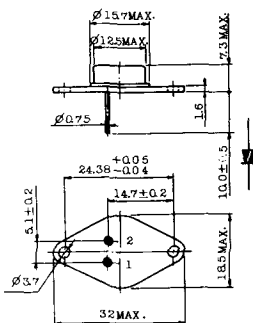
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



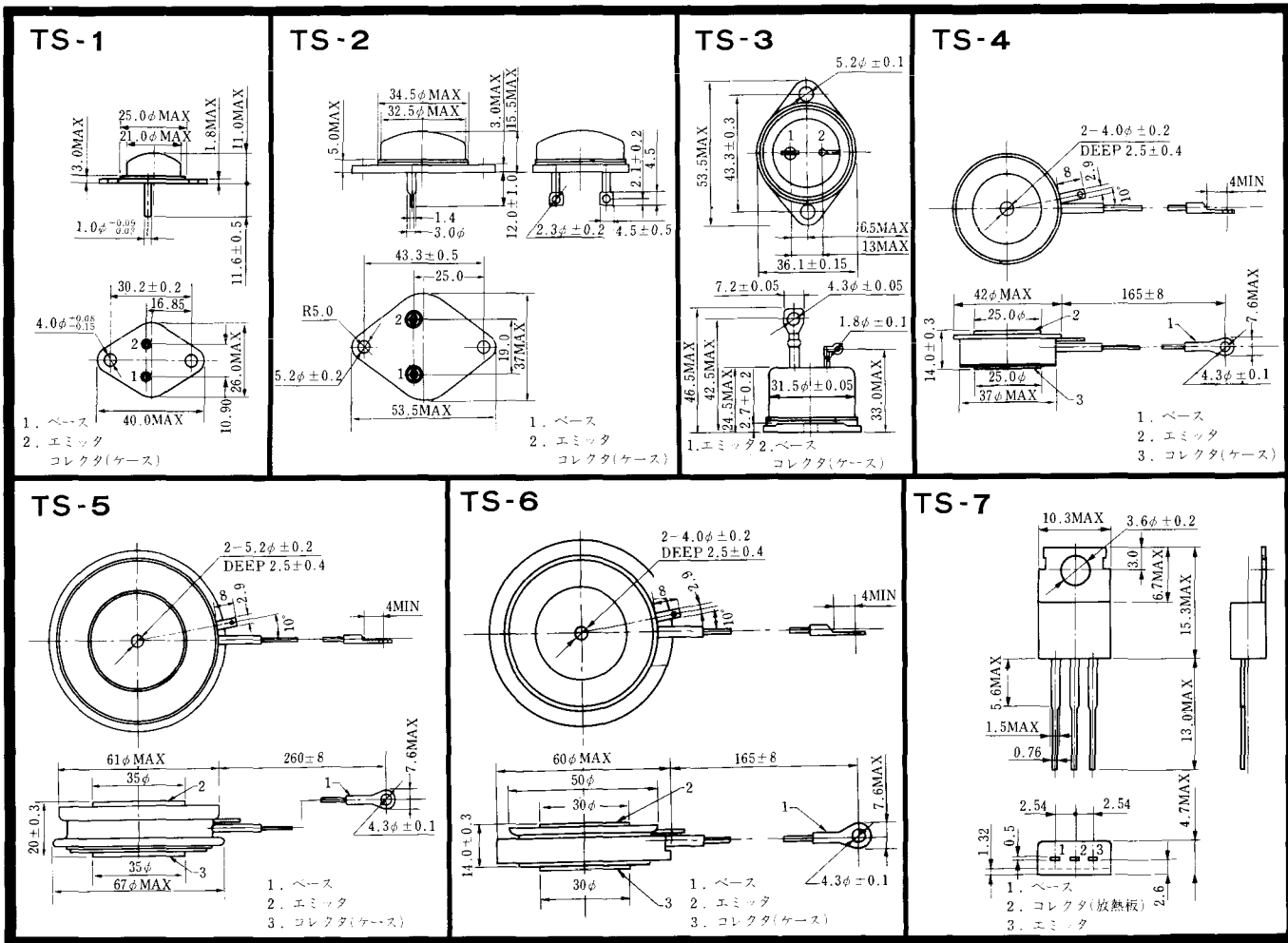
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-8

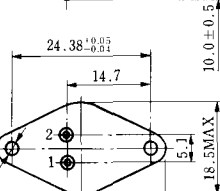
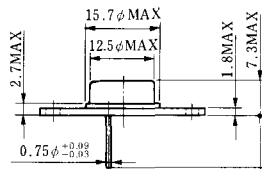


- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)



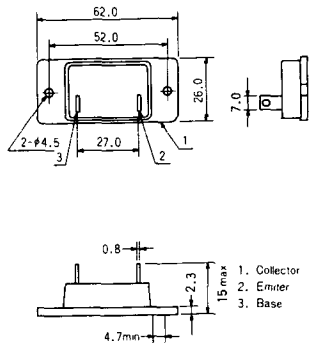


# TS-8

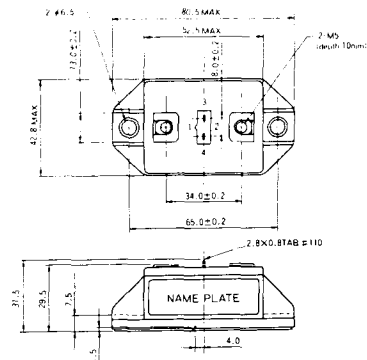


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

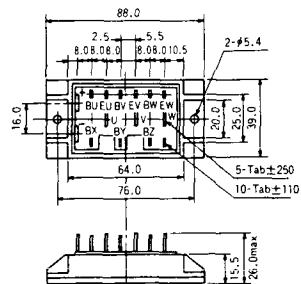
S-62A1A



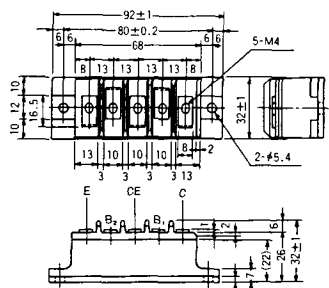
S-80A1A



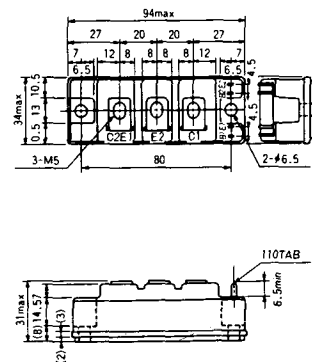
S-88D1A



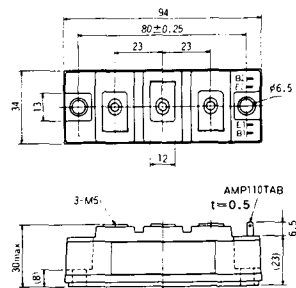
S-92B1A



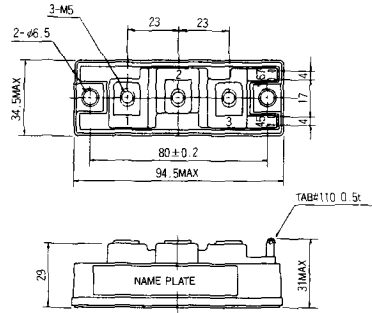
S-94B1A



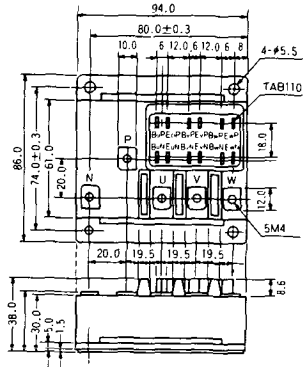
S-94B1B



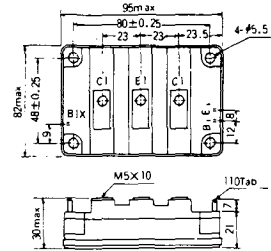
### S-94B2A



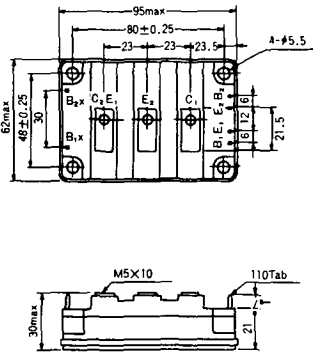
### S-94D1A



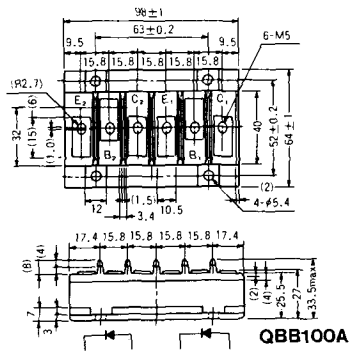
### S-95A1A



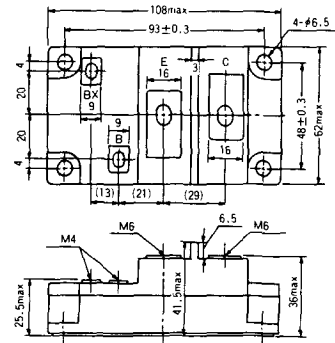
### S-95B1A



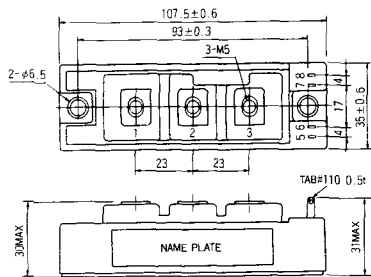
### S-98B1B



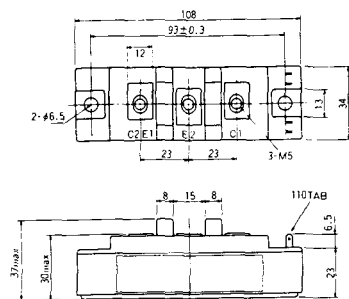
### S-108A2A



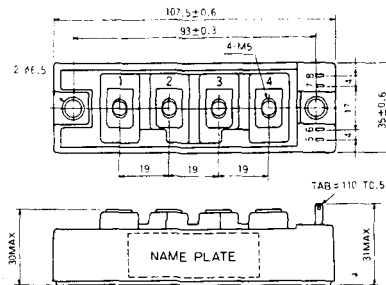
S-108B1A



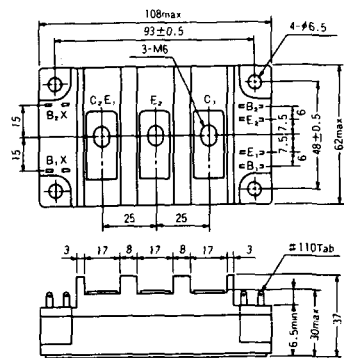
S-108B1B



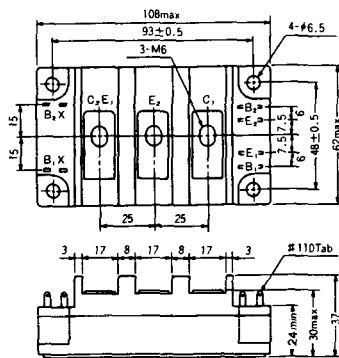
S-108B1C



S-108B2A

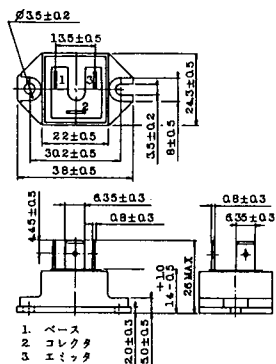


S-108B2B

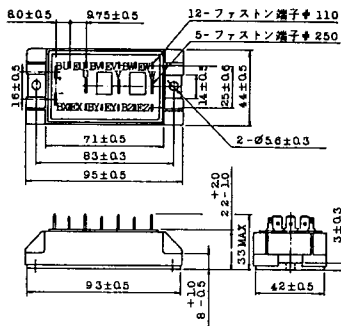




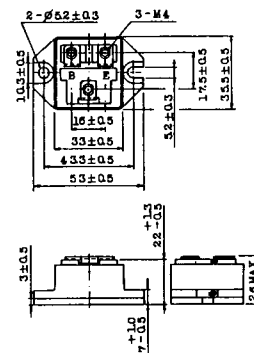
### 2-22B1A



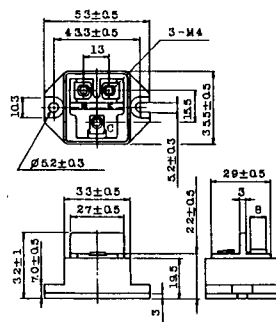
### 2-27A4A



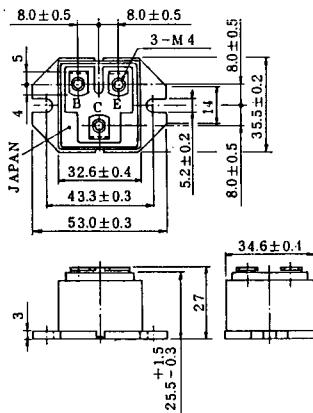
### 2-33C1A



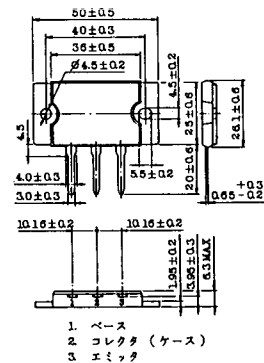
### 2-33D1A



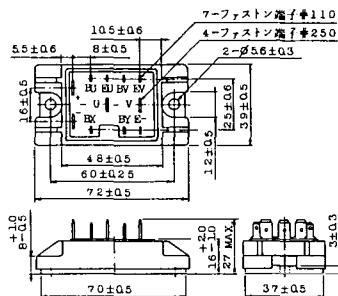
### 2-33F1A



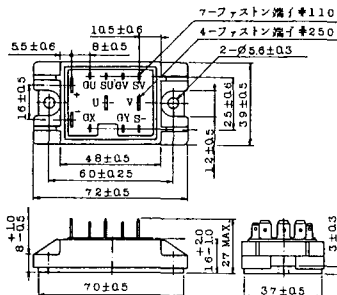
### 2-37A1A



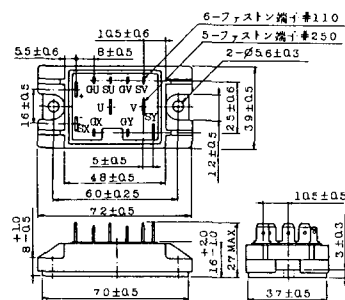
2-48A3A



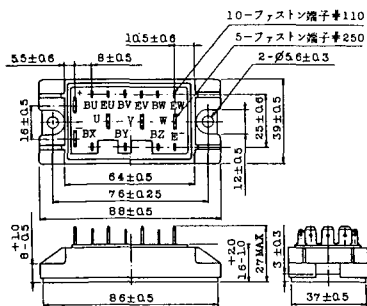
2-48A3B



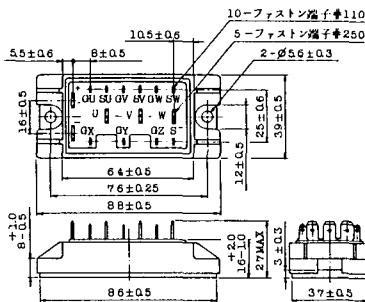
2-48A4A



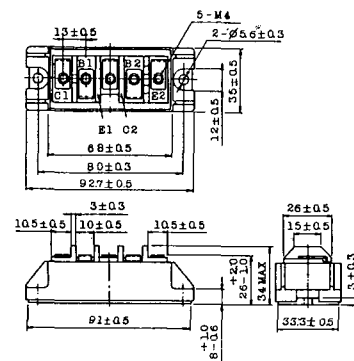
2-64A2A



2-64A2B



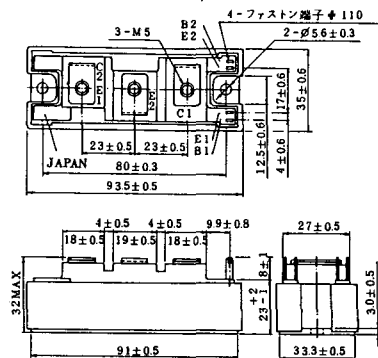
2-68A2A



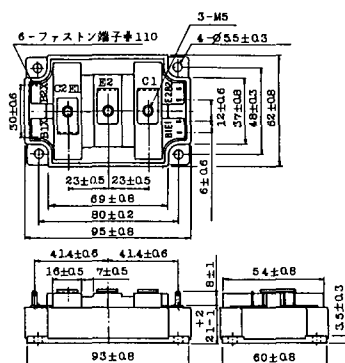




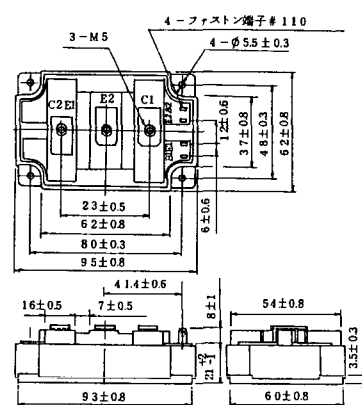
### 2-94D1A



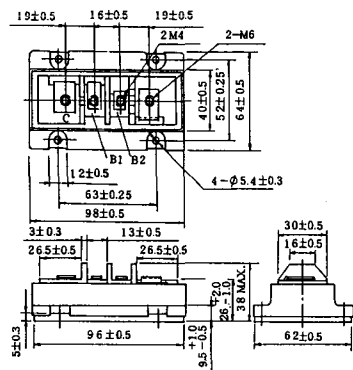
### 2-96A3A



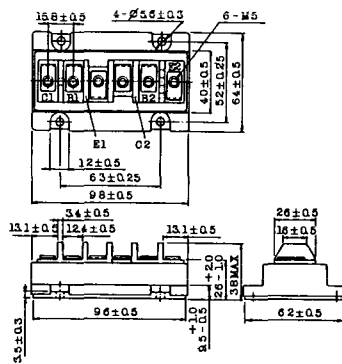
### 2-96A4A



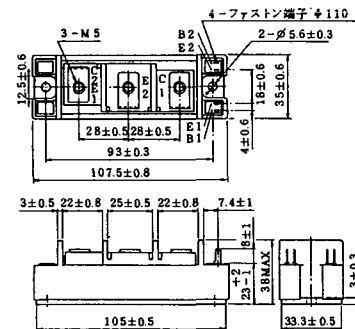
### 2-98B1A



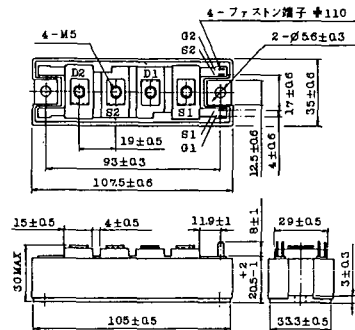
### 2-98C2A



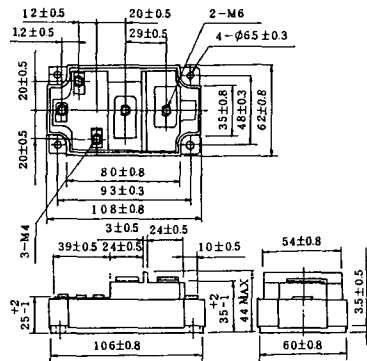
### 2-108A2A



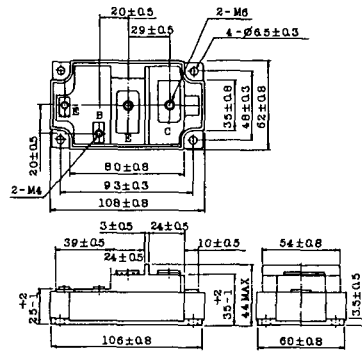
### 2-108B1A



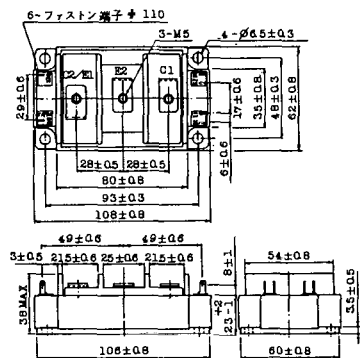
### 2-109A3A



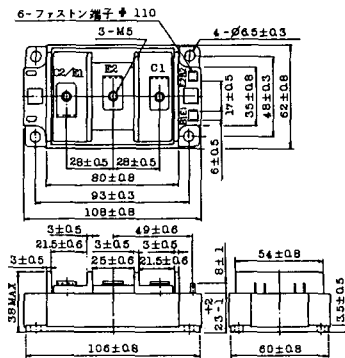
### 2-109A4A



### 2-109B3A

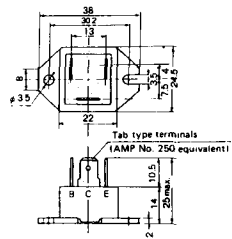


### 2-109B4A

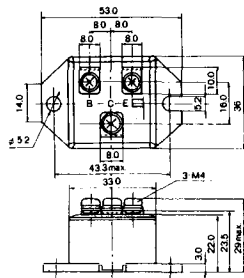




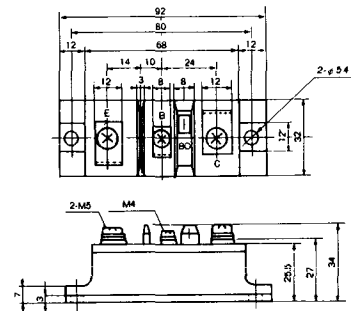
M-101



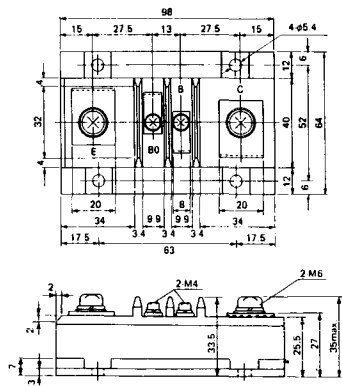
M-102



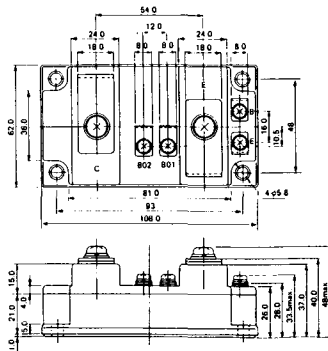
M-103



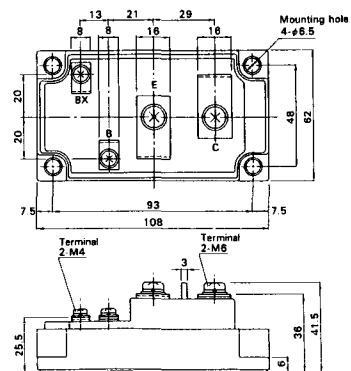
M-104



M-105

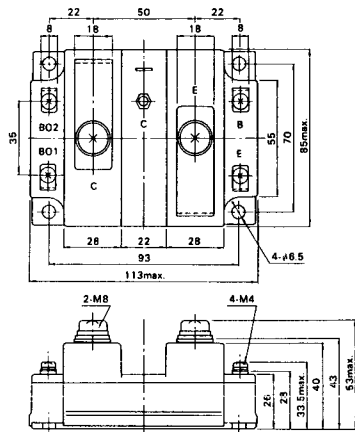


M-106

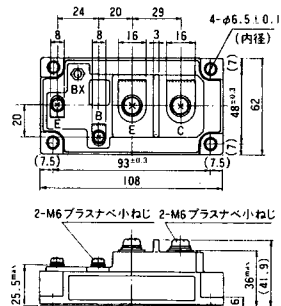




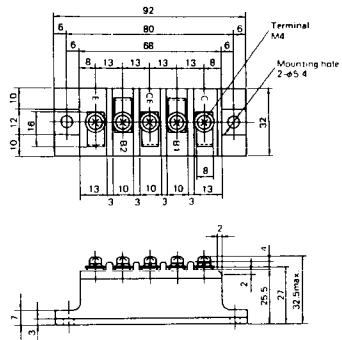
### M-107



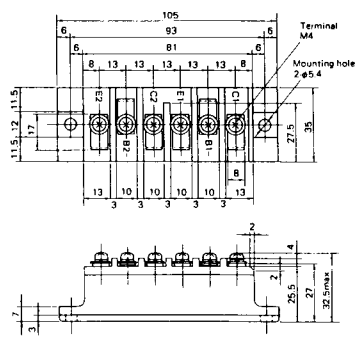
### M-116



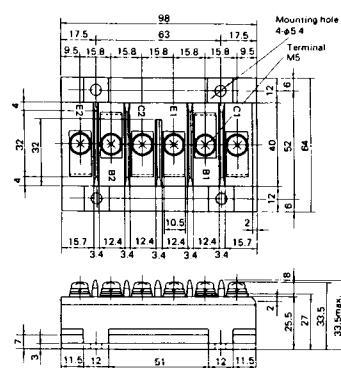
M-201



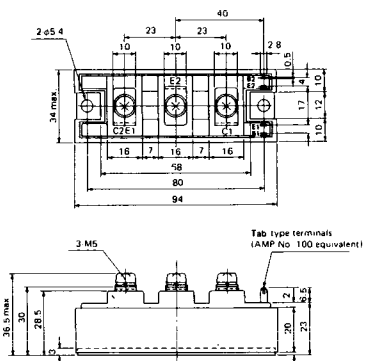
M-202



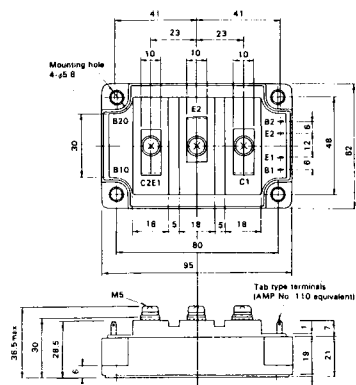
M-203



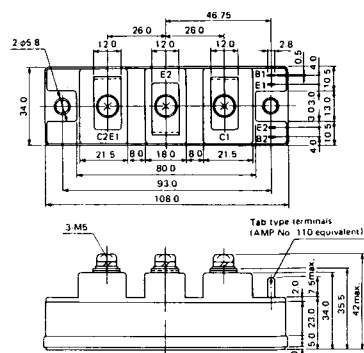
M-204



M-205

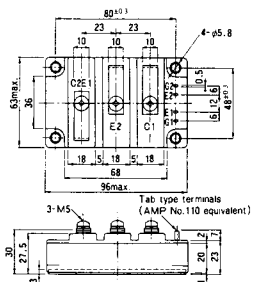


M-206



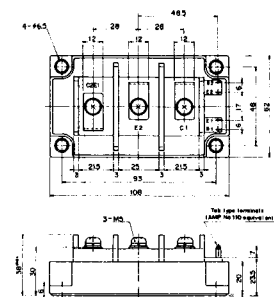


M-213

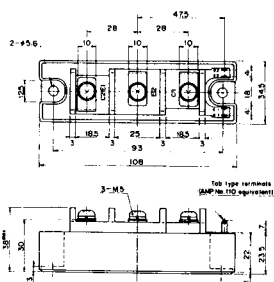


M-214

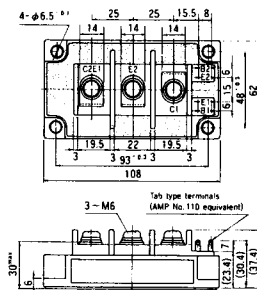
M-215



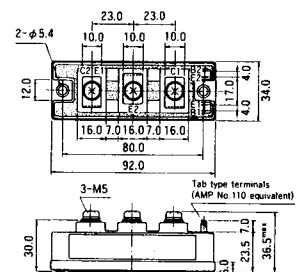
M-216



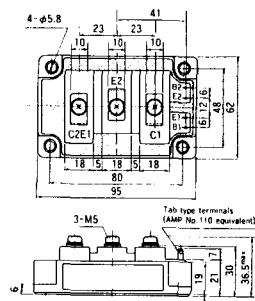
M-217



M-218

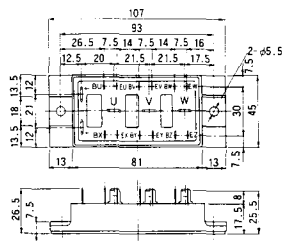


M-219

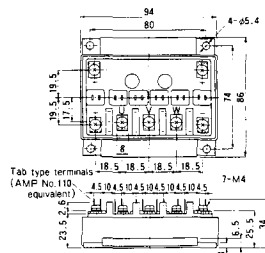




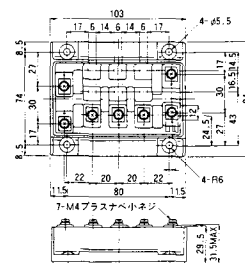
M-607



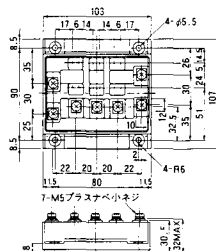
M-608



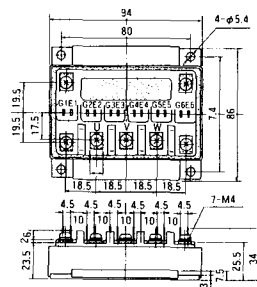
M-609



M-610



M-616

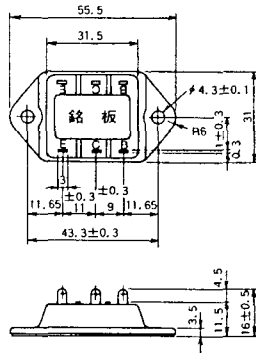




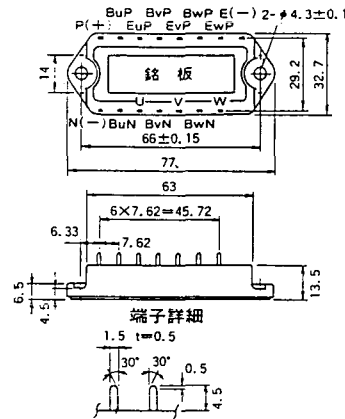




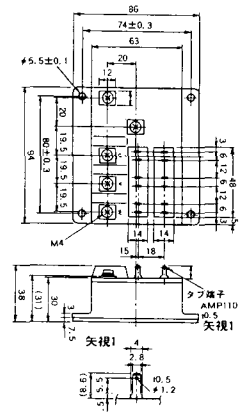
M-3C1A



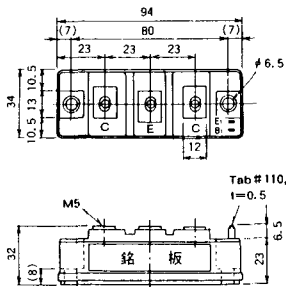
M-3D6A



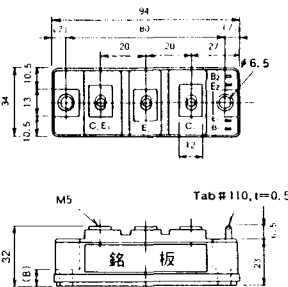
M-3E6A



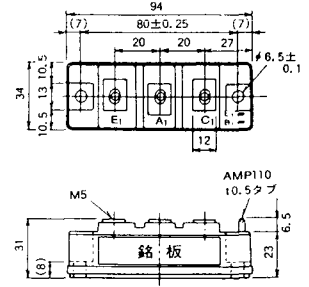
M-4A1A



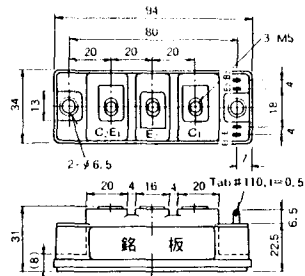
M-4A2A



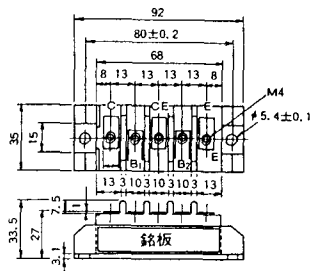
M-4A1B



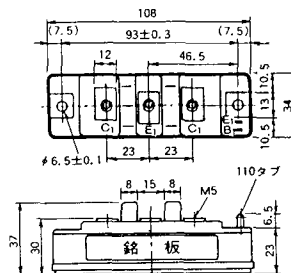
M-4A2B



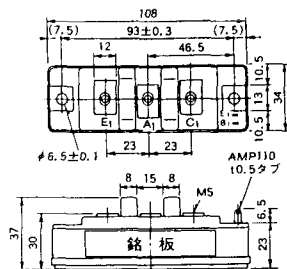
M-4B2A



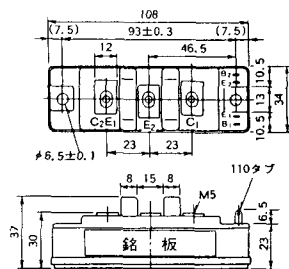
M-5A1A



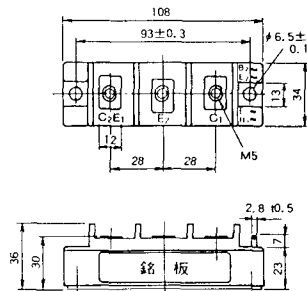
M-5A1B



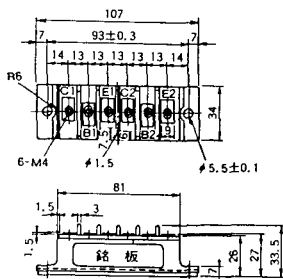
M-5A2A



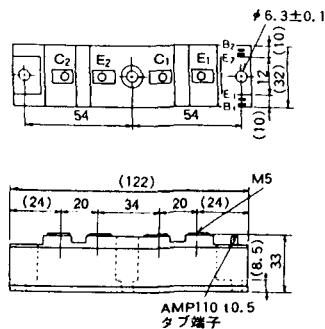
M-5B2A



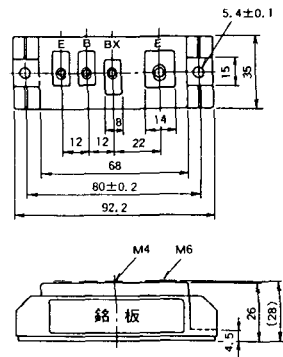
M-5C2A



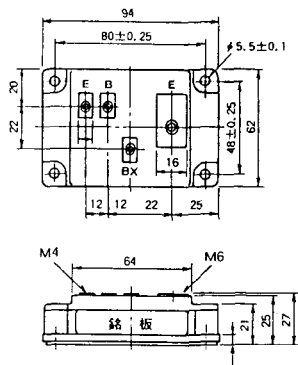
M-5D2A



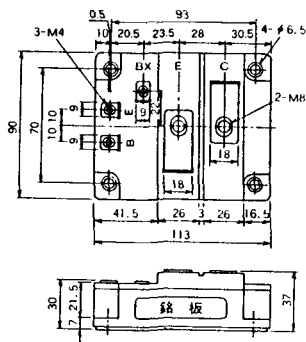
M-6A1A



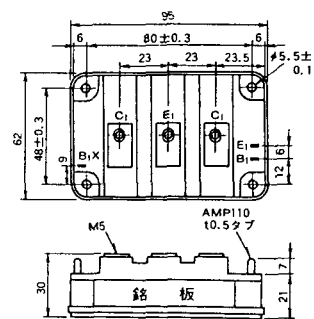
M-7A1A



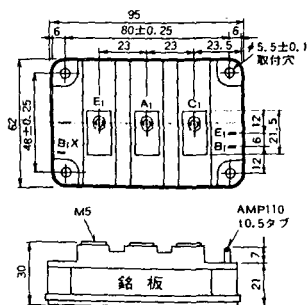
M-7B1A



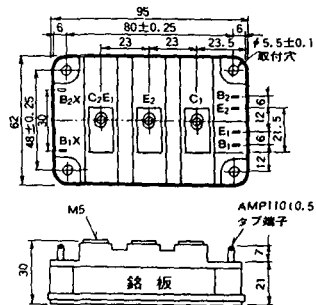
M-8A1A



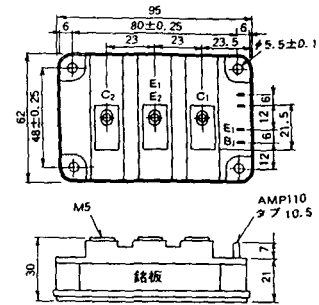
M-8A1B



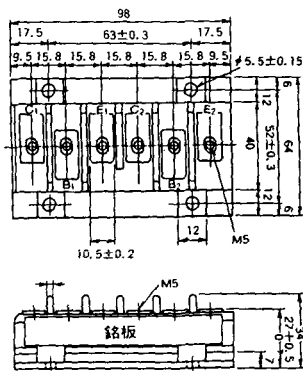
M-8A2A



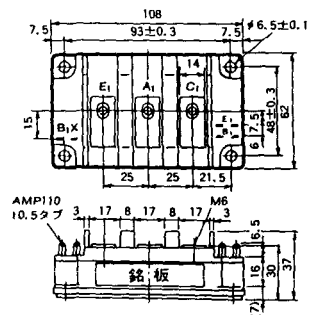
M-8A2B



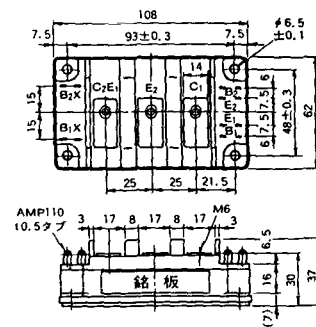
M-8B2A



M-9A1A



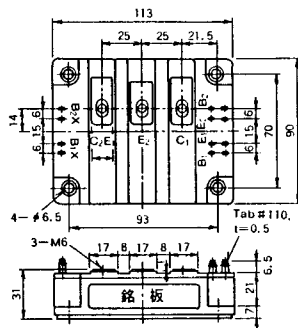
M-9A2A



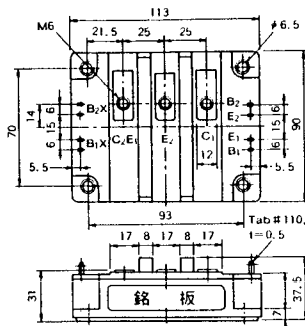




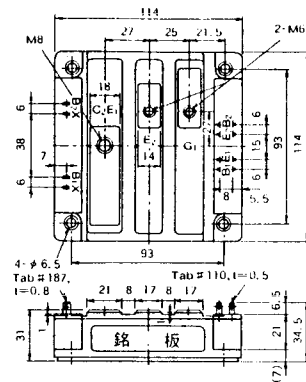
M-10A2A



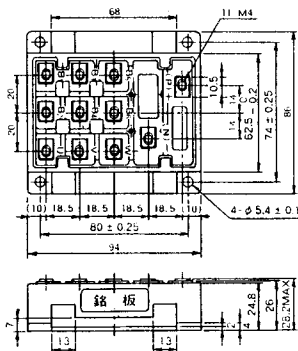
M-10A2B



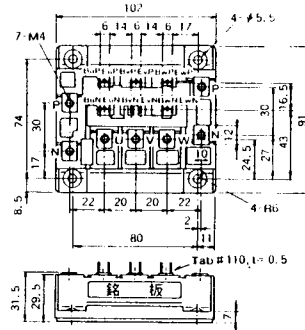
M-11A2A



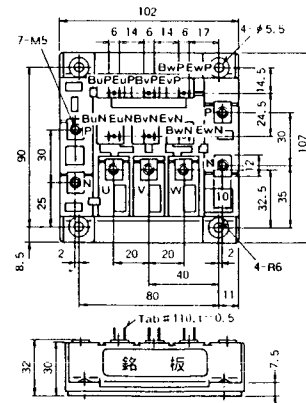
M-12A6A



M-12B6A



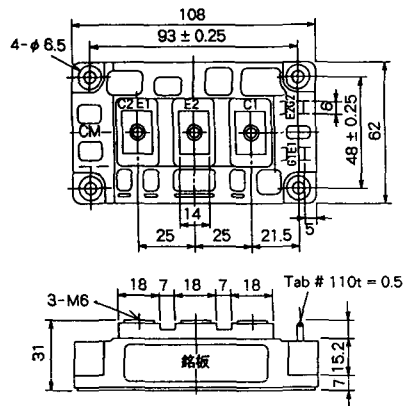
M-12B6B



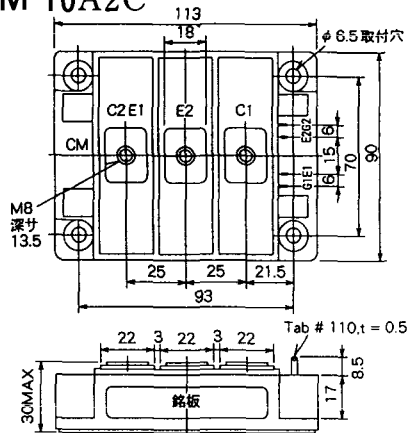




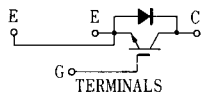
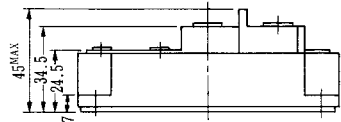
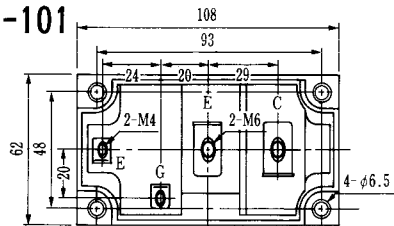
M-9D2B



M-10A2C

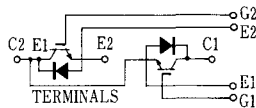
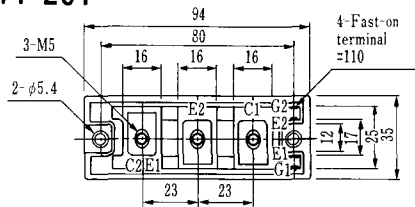


H-101



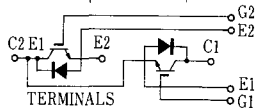
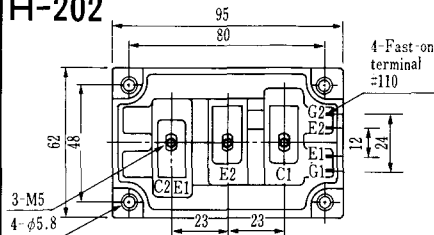
Weight :480g

### H-201



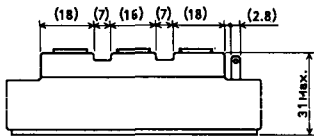
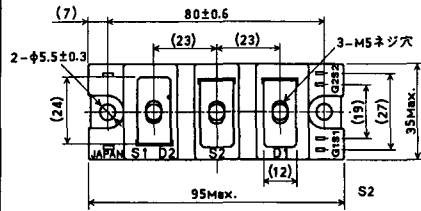
Weight: 200g

### H-202

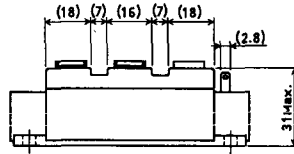
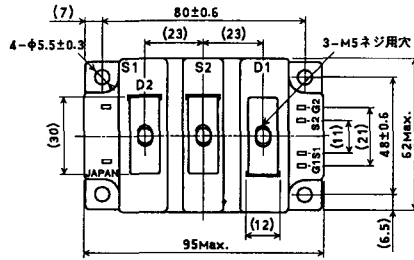


Weight: 360g

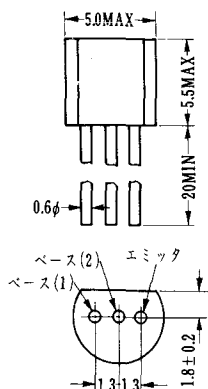
### LF-J



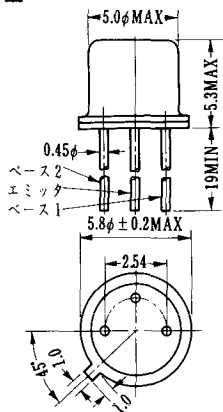
### LF-K



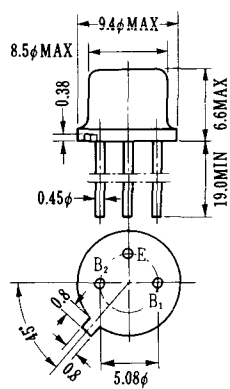
U-1



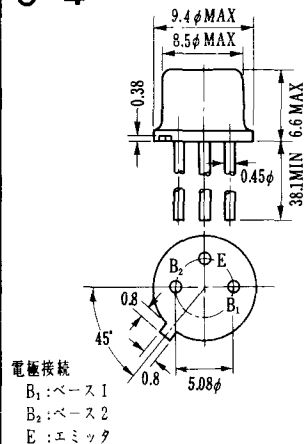
U-2



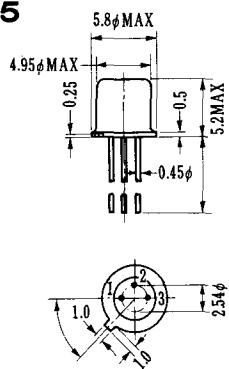
U-3



U-4

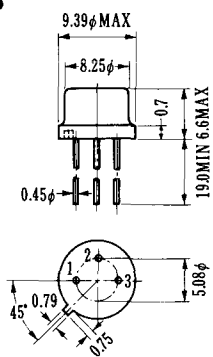


U-5



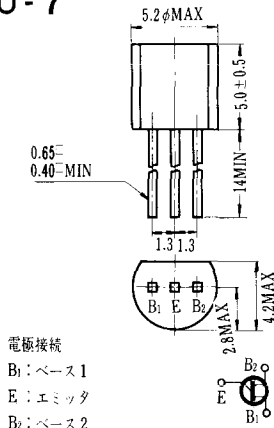
1. BASE 1
2. EMITTER
3. BASE 2 (CASE)

U-6



1. BASE (2)
2. EMITTER
3. BASE (1)

U-7



電極接続

- B<sub>1</sub>:ベース1
- E:エミッタ
- B<sub>2</sub>:ベース2

U-8

