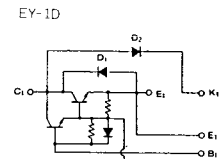
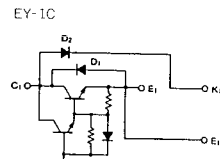
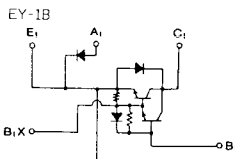
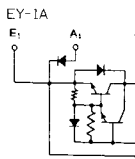


トランジスタ・モジュール [NPN, 1アーム (DCチョップ用)]

- DCチョップ用
- ダーリントン・トランジスタ1個内蔵
- フリーホイール・ダイオード付
- 絶縁形
- UL認定済

Yellow Card No. : E80276 (N)  
File No. : E80271

■等価回路

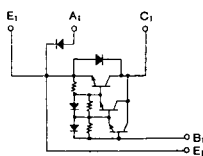


注1.  $I_c = 1A$ ,  $V_{EB} = 2V$ , #印は $V_{CEX}$  ( $V_{EB} = 2V$ )。 注2. 60Hz, 単相半波1サイクル波高値。 注3.  $T_c = 25^\circ C$ 。 注4. AC, 1分間。

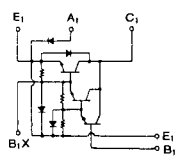
型名	最大定格 (T <sub>c</sub> = 25°C)										電気的特性										
	V <sub>CEO</sub>	V <sub>CEX</sub> (SUS)	V <sub>EB0</sub>	I <sub>c</sub>	I <sub>B</sub>	I <sub>F</sub>	I <sub>FM</sub>	P <sub>c</sub>	T <sub>j</sub>	T <sub>stg</sub>	V <sub>iso</sub>	I <sub>CEX</sub> (mA)		I <sub>EB0</sub> (mA)		V <sub>CEO</sub> (SUS)		h <sub>FE</sub>			
	(V)	(注1) (V)	(V)	(A)	(A)	(A)	(注2) (A)	(注3) (W)	(°C)	(°C)	(注4) (V)	最大	V <sub>CE</sub> (V)	V <sub>EB</sub> (V)	最大	V <sub>EB</sub> (V)	最小	I <sub>c</sub> (A)	最小	V <sub>CE</sub> (V)	I <sub>c</sub> (A)
QM30E2Y-H	600	600	7	30	1.8	30	600	250	150	-40~125	2500	1	600	2	200	7			75/100	2/5	30
QM30E2Y-2H	1000	1000	7	30	2.0	30	600	310	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	30
QM30E3Y-H	600	600	7	30	1.8	30	600	250	150	-40~125	2500	1	600	2	200	7			75/100	2/5	30
QM30E3Y-2H	1000	1000	7	30	2.0	30	600	310	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	30
QM50E2Y-H	600	600	7	50	3.0	50	500	310	150	-40~125	2500	1	600	2	200	7			75/100	2/5	50
QM50E2Y-2H	1000	1000	7	50	3.0	50	500	400	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	50
QM50E3Y-H	600	600	7	50	3.0	50	500	310	150	-40~125	2500	1	600	2	200	7			75/100	2/5	50
QM50E3Y-2H	1000	1000	7	50	3.0	50	500	400	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	50
QM75E2Y-H	600	600	7	75	4.5	75	750	350	150	-40~125	2500	1	600	2	200	7			75/100	2/5	75
QM75E2Y-2H	1000	1000	7	75	4.0	75	750	500	150	-40~125	2500	1	1000	2	100	7			75/100	2.8/5	75
QM75E3Y-H	600	600	7	75	4.5	75	750	350	150	-40~125	2500	1	600	2	200	7			75/100	2/5	75
QM75E3Y-2H	1000	1000	7	75	4.0	75	750	500	150	-40~125	2500	1	1000	2	100	7			75/100	2.8/5	75
QM100E2Y-H	600	600	7	100	6.0	100	1000	620	150	-40~125	2500	2	600	2	300	7			75/100	2/5	100
QM100E2Y-2H	1000	1000	7	100	5.0	100	1000	800	150	-40~125	2500	2	1000	2	400	7			75/100	2.8/5	100
QM100E3Y-H	600	600	7	100	6.0	100	1000	620	150	-40~125	2500	2	600	2	300	7			75/100	2/5	100
QM100E3Y-2H	1000	1000	7	100	5.0	100	1000	800	150	-40~125	2500	2	1000	2	400	7			75/100	2.8/5	100
QM150E2Y-H	600	600	7	150	9.0	150	1500	690	150	-40~125	2500	2	600	2	150	7			75/100	2/5	150
QM150E2Y-2H	1000	1000	7	150	8.0	150	1500	1000	150	-40~125	2500	2	1000	2	200	7			75/100	2.8/5	150
QM150E3Y-H	600	600	7	150	9.0	150	1500	690	150	-40~125	2500	2	600	2	150	7			75/100	2/5	150
QM150E3Y-2H	1000	1000	7	150	8.0	150	1500	1000	150	-40~125	2500	2	1000	2	200	7			75/100	2.8/5	150

■スイッチング時間測定回路

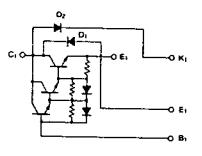
EY-2A



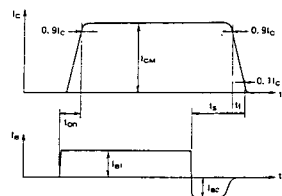
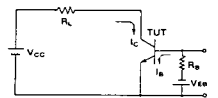
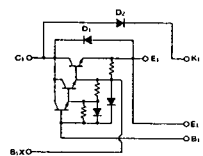
EY-2B



EY-2C



EY-2D



ベース信号

(Tj=25°C)										エミッタ・コレクタ間ダイオード					熱抵抗		等価回路	外形図	記事	型名		
飽和電圧 (V)		Ic	Ib	スイッチング時間 (μs)			IB1	IB2	Vcc	Ic	VF (V)	IF (A)	trr (μs)		VR (V)	di/dt (A/μs)					θj-c (°C/W)	
VCE	VBE			ton	tstorage	tf							最大	最大							最大	最大
2.0	2.5	30	0.4	1.5	12	3.0	0.6	-0.6	300	30	1.85	30					0.5	2.0	EY-1A	M-4A1B		QM30E2Y-H
2.5	3.5	30	0.6	2.5	15	3.0	0.6	-0.6	600	30	1.8	30					0.4	1.5	EY-2A	M-4A1B		QM30E2Y-2H
2.0	2.5	30	0.4	1.5	12	3.0	0.6	-0.6	300	30	1.85	30					0.5	2.0	EY-1C	M-4A1B		QM30E3Y-H
2.5	3.5	30	0.6	2.5	15	3.0	0.6	-0.6	600	30	1.8	30					0.4	1.5	EY-2C	M-4A1B		QM30E3Y-2H
2.0	2.5	50	0.65	1.5	12	3.0	1.0	-1.0	300	50	1.75	50					0.4	1.3	EY-1A	M-4A1B		QM50E2Y-H
2.5	3.5	50	1.0	2.5	15	3.0	1.0	-1.0	600	50	1.8	50					0.31	1.2	EY-2A	M-4A1B		QM50E2Y-2H
2.0	2.5	50	0.65	1.5	12	3.0	1.0	-1.0	300	50	1.75	50					0.4	1.3	EY-1C	M-4A1B		QM50E3Y-H
2.5	3.5	50	1.0	2.5	15	3.0	1.0	-1.0	600	50	1.8	50					0.31	1.2	EY-2C	M-4A1B		QM50E3Y-2H
2.0	2.5	75	1.0	2.5	12	3.0	1.5	-1.5	300	75	1.85	75					0.35	1.3	EY-1A	M-4A1B		QM75E2Y-H
2.5	3.5	75	1.5	2.5	15	3.0	1.5	-1.5	600	75	1.8	75					0.25	1.2	EY-2A	M-5A1B		QM75E2Y-2H
2.0	2.5	75	1.0	2.5	12	3.0	1.5	-1.5	300	75	1.85	75					0.35	1.3	EY-1C	M-4A1B		QM75E3Y-H
2.5	3.5	75	1.5	2.5	15	3.0	1.5	-1.5	600	75	1.8	75					0.25	1.2	EY-2C	M-5A1B		QM75E3Y-2H
2.0	2.5	100	1.3	2.0	12	3.0	2.0	-2.0	300	100	1.75	100					0.2	0.65	EY-1B	M-8A1B		QM100E2Y-H
2.5	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100					0.155	0.65	EY-2B	M-9A1A		QM100E2Y-2H
2.0	2.5	100	1.3	2.0	12	3.0	2.0	-2.0	300	100	1.75	100					0.2	0.65	EY-1D	M-8A1B		QM100E3Y-H
2.5	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100					0.155	0.65	EY-2D	M-9A1A		QM100E3Y-2H
2.0	2.5	150	2.0	2.5	12	3.0	3.0	-3.0	300	150	1.85	150					0.18	0.6	EY-1B	M-8A1B		QM150E2Y-H
2.5	3.5	150	3.0	3.0	15	3.0	3.0	-3.0	600	150	1.8	150					0.125	0.6	EY-2B	M-9A1A		QM150E2Y-2H
2.0	2.5	150	2.0	2.5	12	3.0	3.0	-3.0	300	150	1.85	150					0.18	0.6	EY-1D	M-8A1B		QM150E3Y-H
2.5	3.5	150	3.0	3.0	15	3.0	3.0	-3.0	600	150	1.8	150					0.125	0.6	EY-2D	M-9A1A		QM150E3Y-2H

FD-1



FD-2



FD-3



FD-4



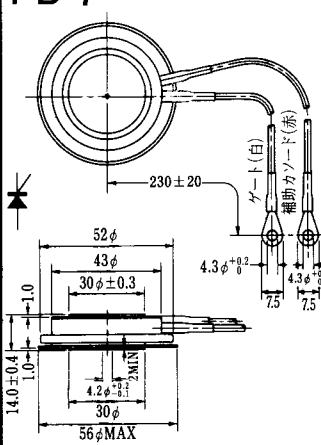
FD-5



FD-6



FD-7



FD-8



FD-9



FD-10

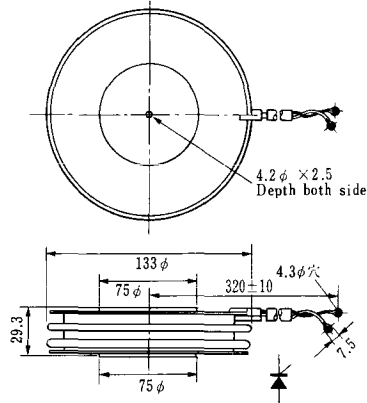


FD-12

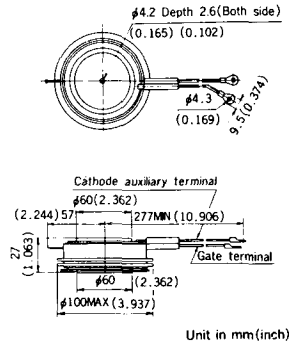




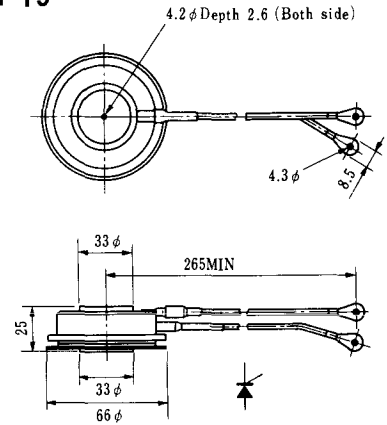
### H-17



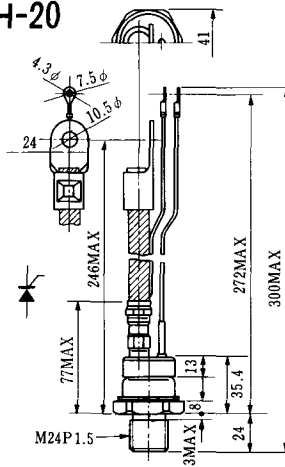
### H-18



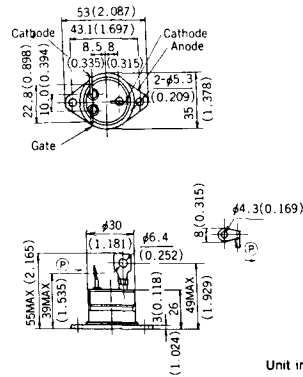
### H-19



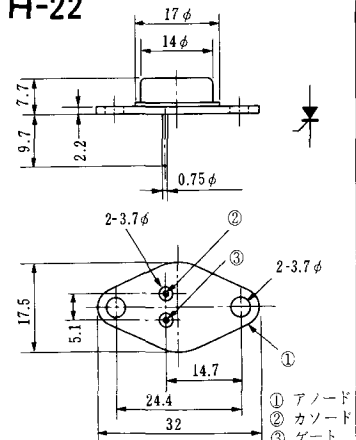
### H-20



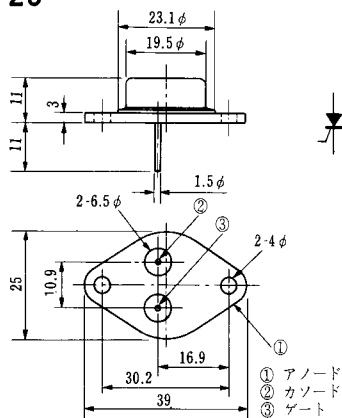
### H-21



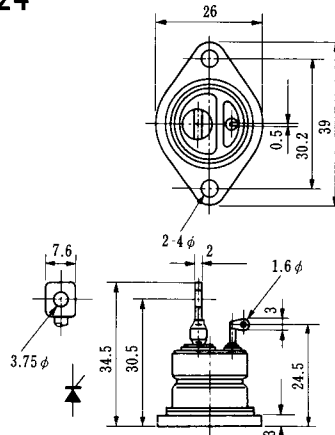
### H-22



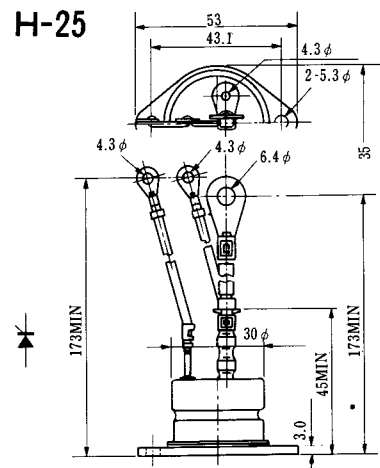
### H-23



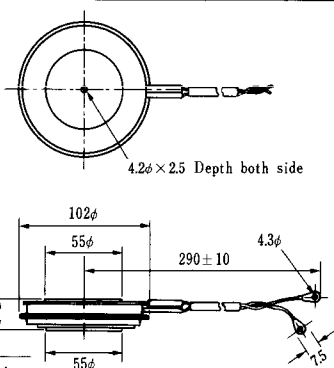
### H-24



### H-25



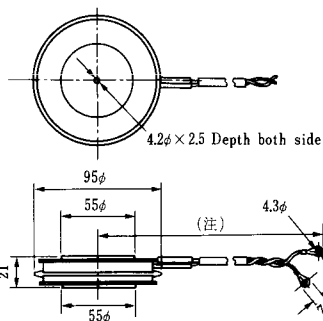
### H-26



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

CA12	
------	--

### H-27

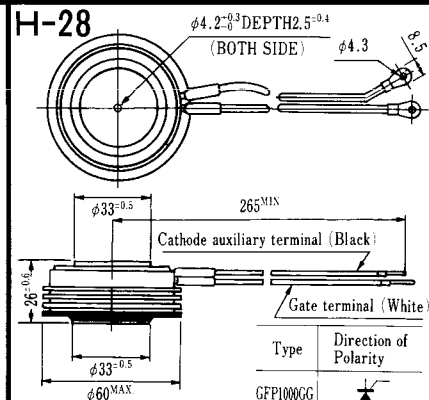


Type	Direction of polarity
------	-----------------------

CF11V	
-------	--

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

### H-28



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

GFP100GG	
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Weight: 360(g)

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



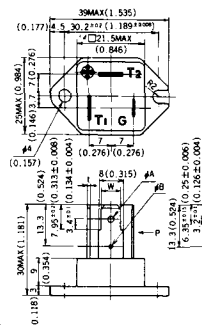


Note : The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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

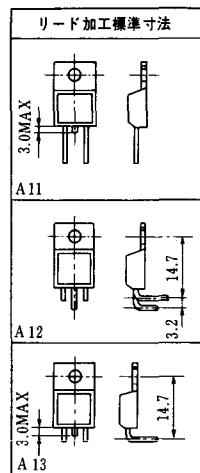
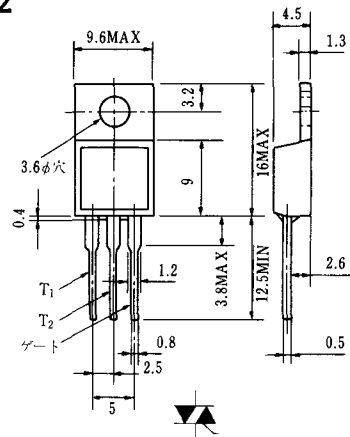
# HT-1



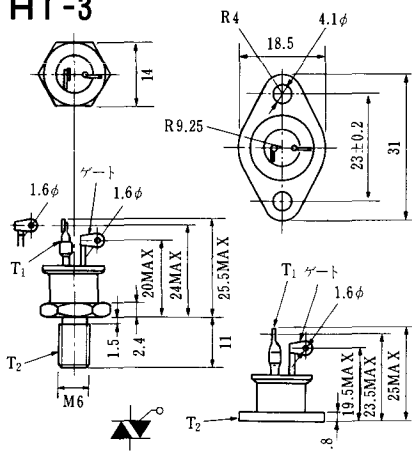
TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079±0.004)	1.3 (0.051)
T <sub>2</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079±0.004)	1.3 (0.051)
G	0.5±0.025 (0.020±0.001)	4.75±0.1 (0.187±0.004)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

Unit in mm (inch)

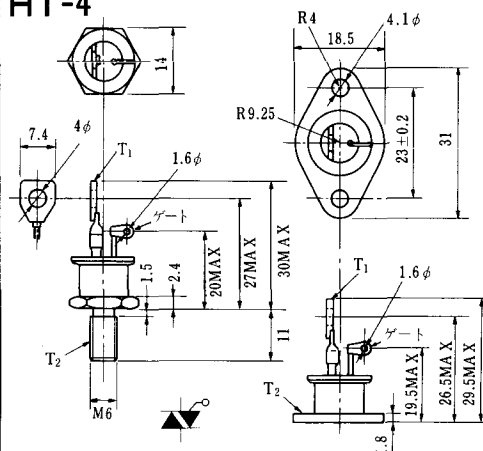
# HT-2



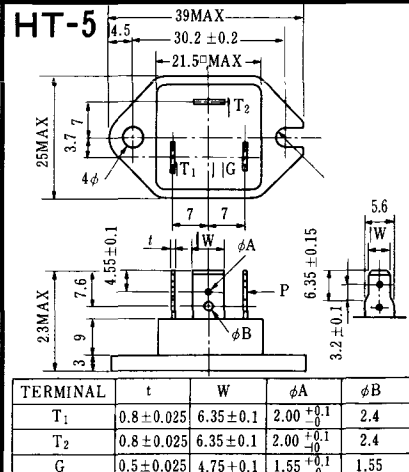
# HT-3



# HT-4



# HT-5



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

〈寸法図単位：mm〉

### M-1



### M-2



### M-3



### M-4



### M-5



### M-6



### M-7



### M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15



M-16





M-25



M-26



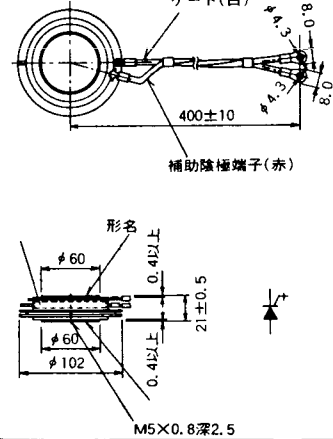
M-27



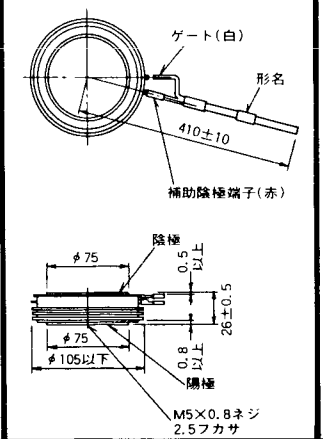
M-28



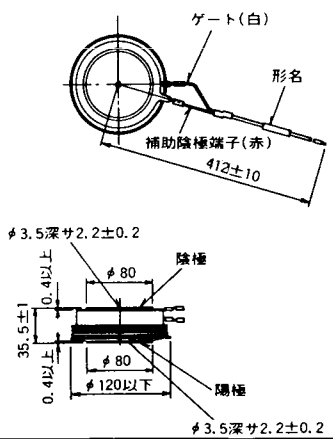
M-29



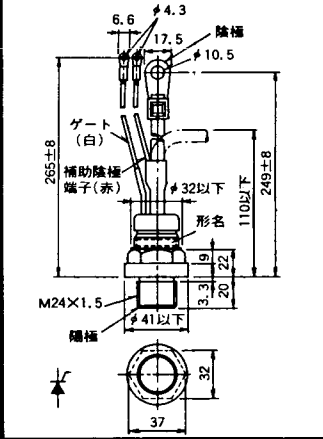
M-30



M-31



M-32



### M-33



### M-34



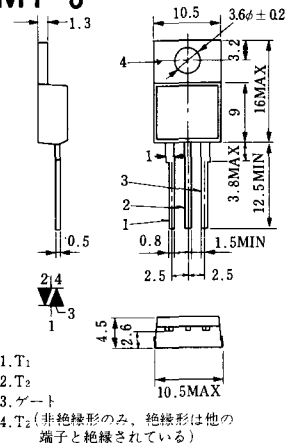
### MT-1



### MT-2



### MT-3



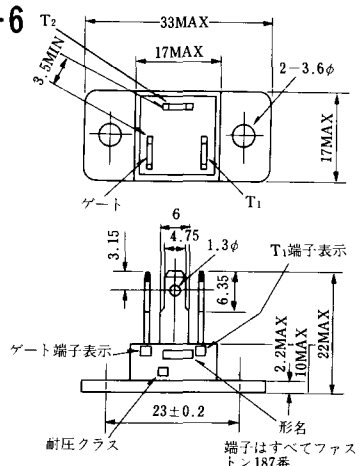
### MT-4



### MT-5



### MT-6



### MT-7

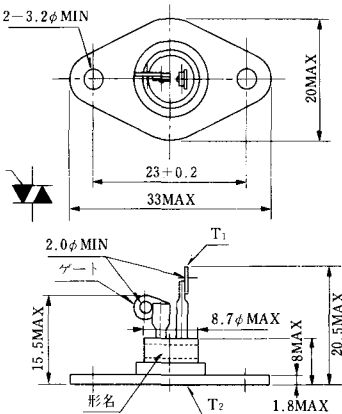




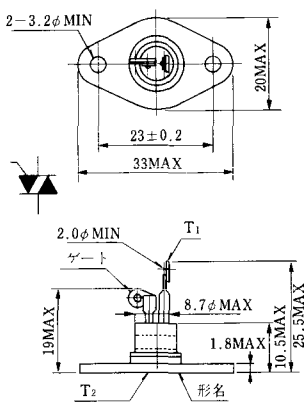
MT-8



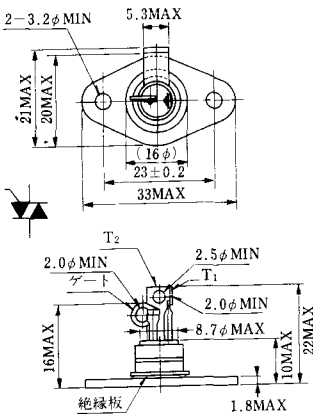
MT-9



MT-10



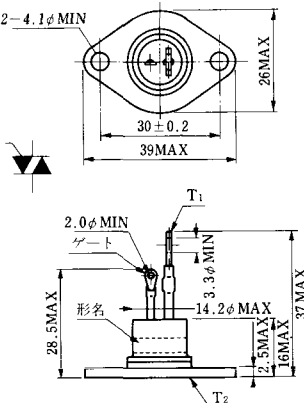
MT-11



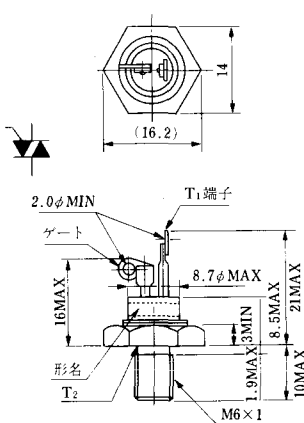
MT-12



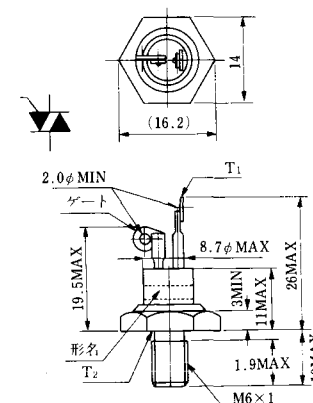
MT-13



MT-14



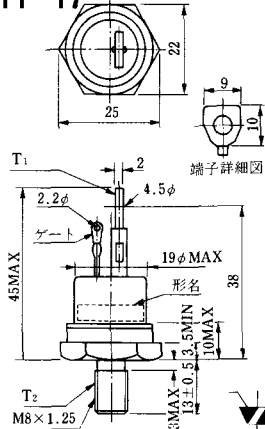
MT-15



MT-16

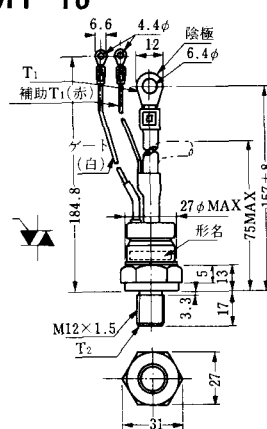


MT-17

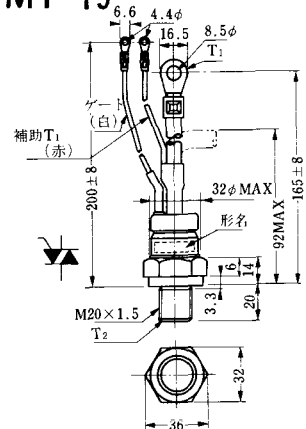


端子詳細図

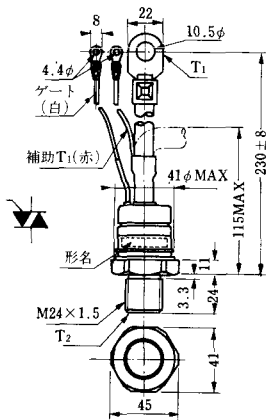
MT-18



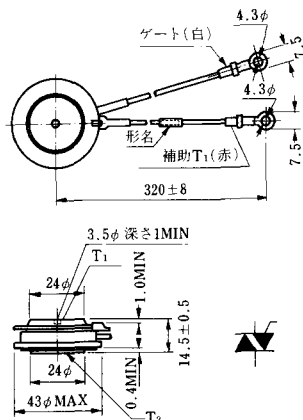
MT-19



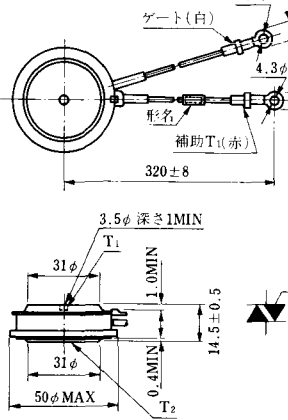
MT-20



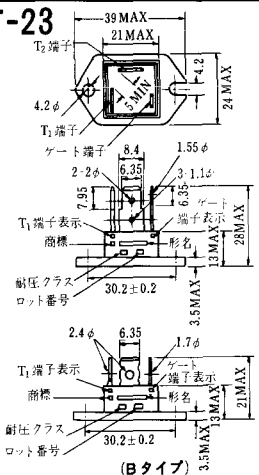
MT-21



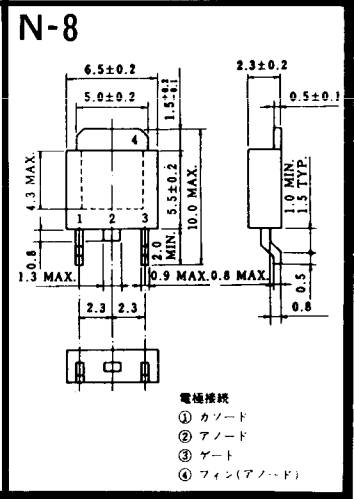
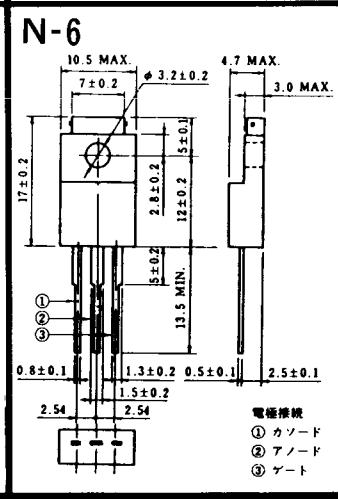
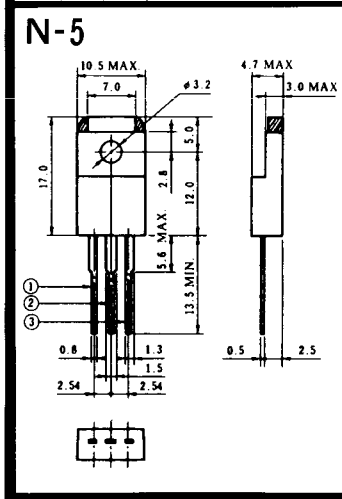
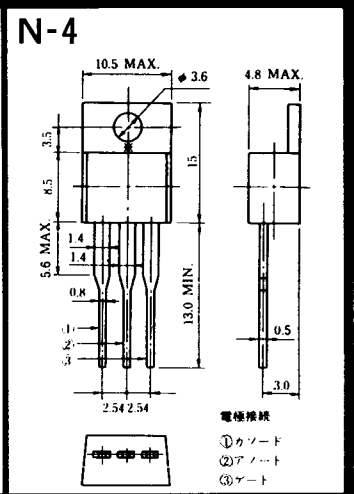
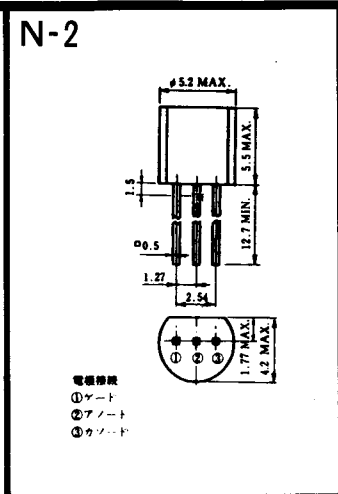
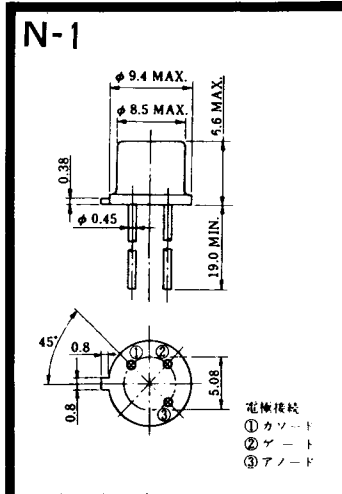
MT-22



MT-23







N-9



電極接続

K : カソード

A : アノード

G : ゲート

### NA-1

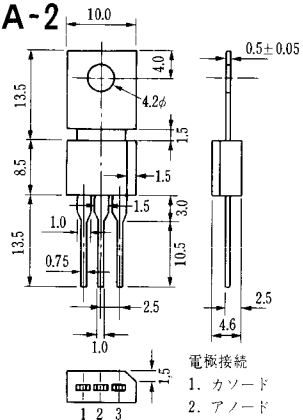


電極接続

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-24

2001PGB<sup>r</sup> JE



NI-25

NI-26

### NT-1



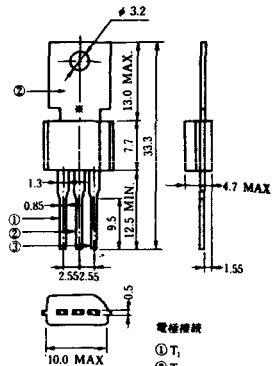
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-2



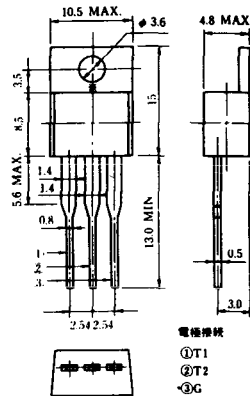
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-3



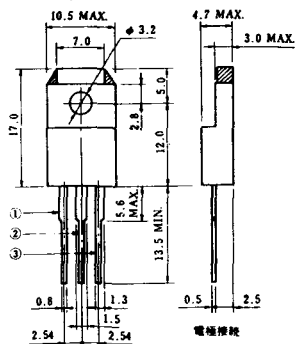
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート

### NT-4



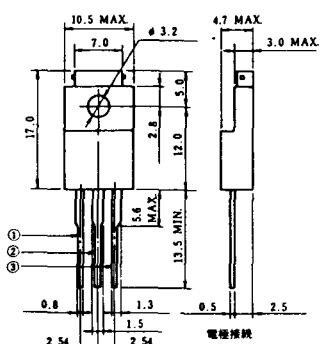
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G

### NT-5



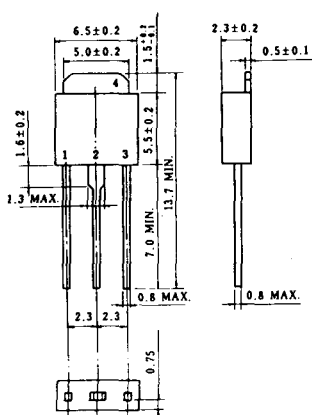
電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
④ G

### NT-6

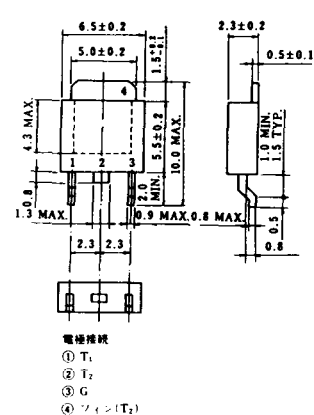


電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
④ G

### NT-7

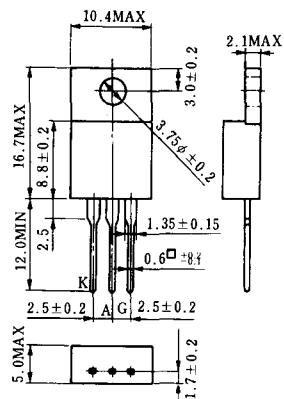


### NT-8

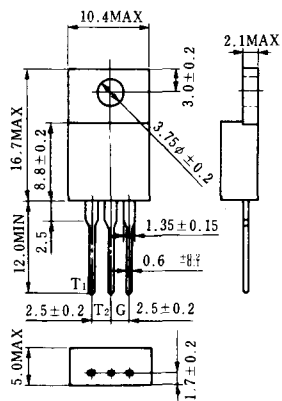


電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G  
④ シェン(T<sub>2</sub>)

### S-1

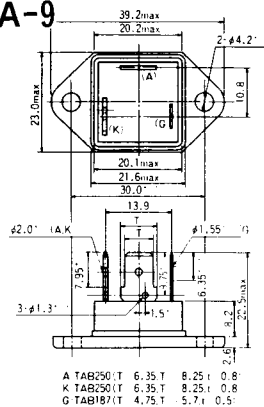


### ST-1





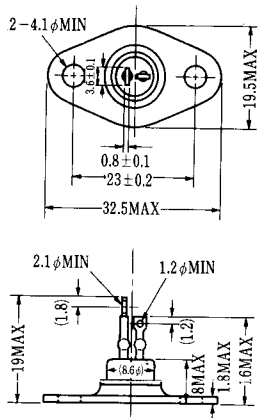
### SA-9



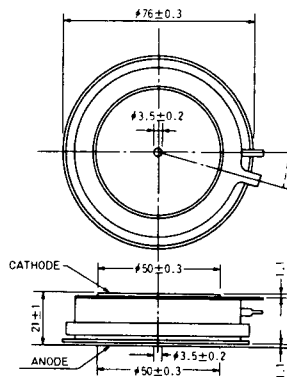
A TAB250(T) 6.35 T 8.25 I 0.8  
 K TAB250(T) 6.35 T 8.25 I 0.8  
 G TAB187(T) 4.75 T 5.7 I 0.5



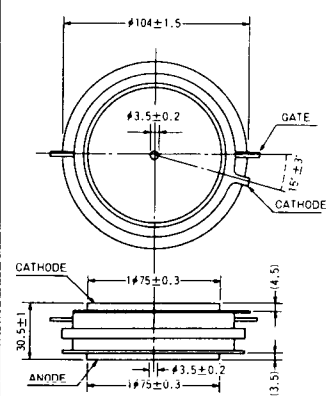
### SA-10



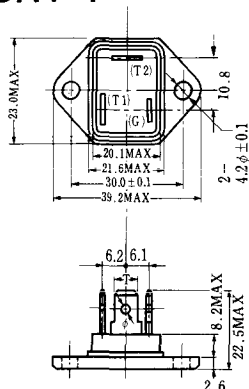
### SA-11



### SA-12



SAT-1



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

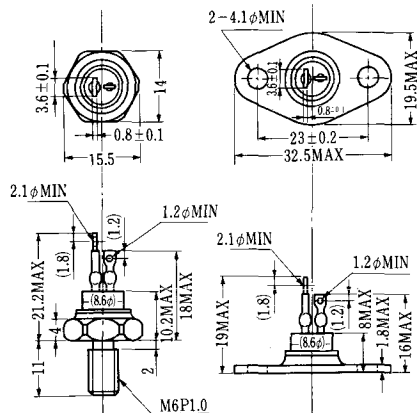
SAT-2



SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



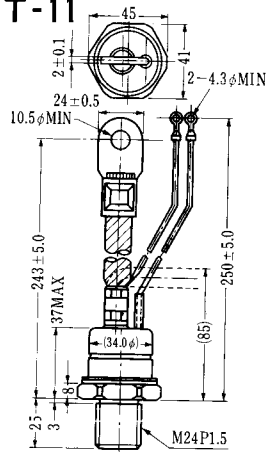
SAT-9



SAT-10

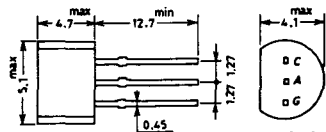


SAT-11



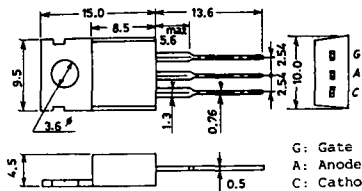


### SY-1 (1096A)



C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



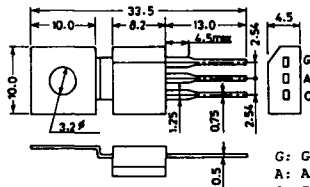
G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

### SY-4 (1150)



G: Gate  
A: Anode  
C: Cathode

1097A



G: Gate

1102



1141



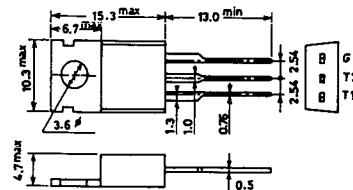
1142



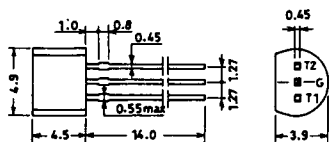
1144



1155

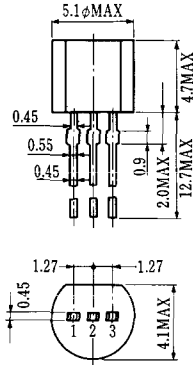


1192A



G: Gate

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



- 1 ゲート
- 2 アノード
- 3 カソード

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



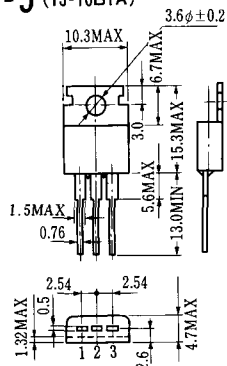
1. カソード
2. ゲート
3. アノード(ケース)

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



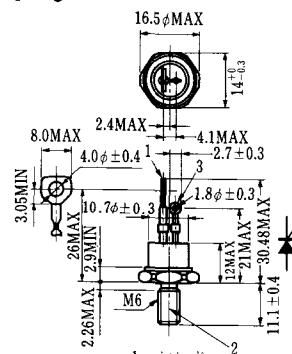
- 1 カソード
- 2 アノード
- 3 ゲート

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



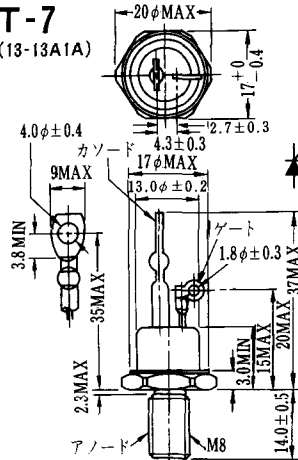
- 1 カソード
- 2 アノード
- 3 ゲート

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

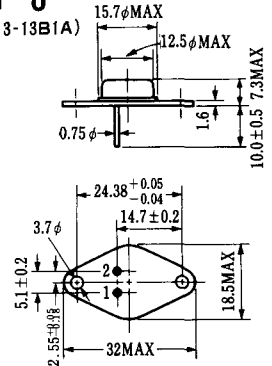


- 1 カソード
- 2 アノード
- 3 ゲート

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

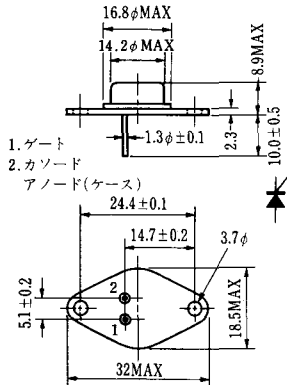


**T-8 (13-13B1A)**



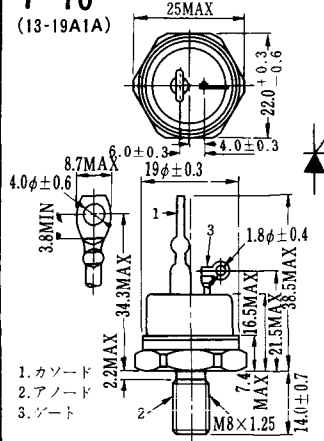
1. ゲート
2. カソード
3. アノード(ケース)

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



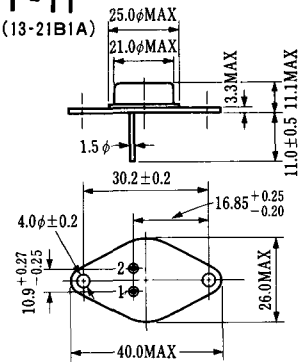
1. ゲート  
2. カソード  
3. アノード(ケース)

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



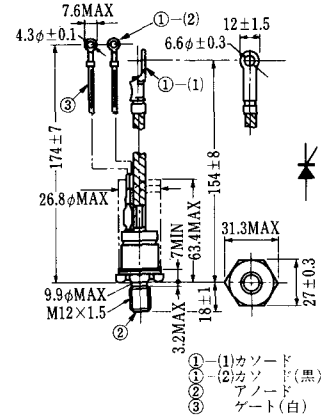
1. カソード  
2. アノード  
3. ゲート

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



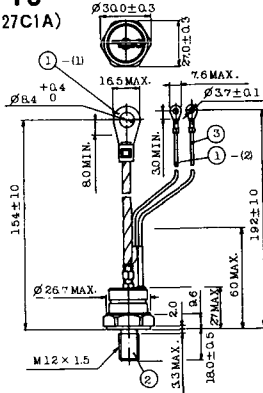
1. ゲート  
2. カソード  
3. アノード(ケース)

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



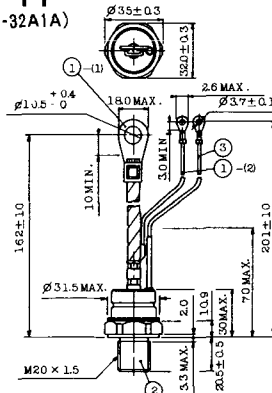
- ① (1) カソード  
① (2) カソード(黒)  
② アノード  
③ ゲート(白)

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



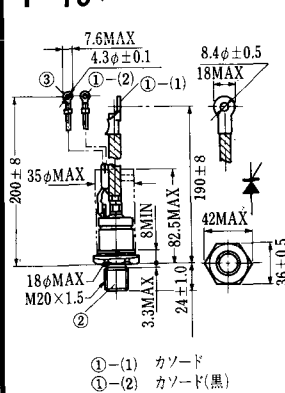
- 1-(1) カソード P アノード  
1-(2) カソード(黒) B ゲート(白)

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



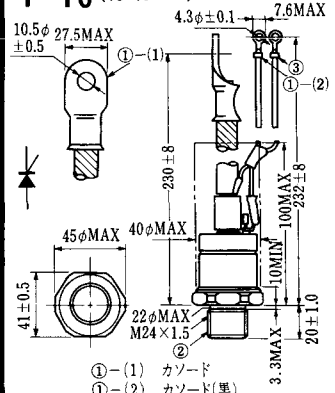
- 1-(1) カソード P アノード  
1-(2) カソード(黒) B ゲート(白)

### 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)**



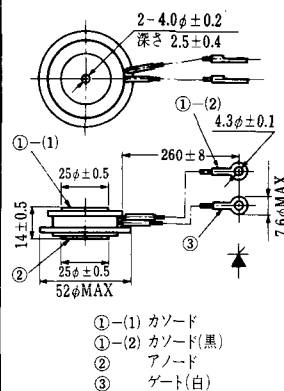
**T-18 (13-45D1A)**



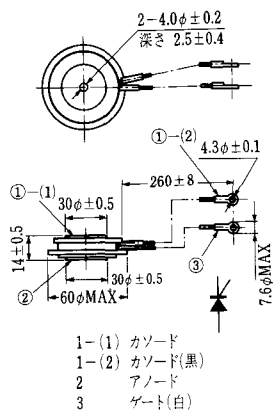
**T-19 (13-52B1A)**



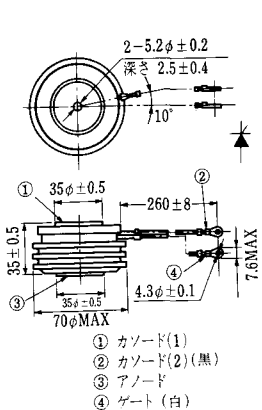
**T-20 (13-52C1A)**



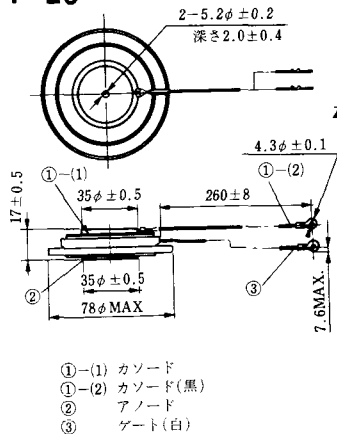
**T-21 (13-60A1A)**



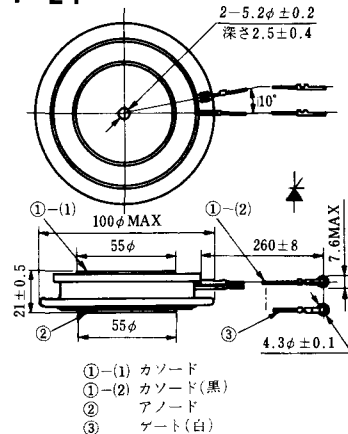
**T-22 (13-70C1A)**



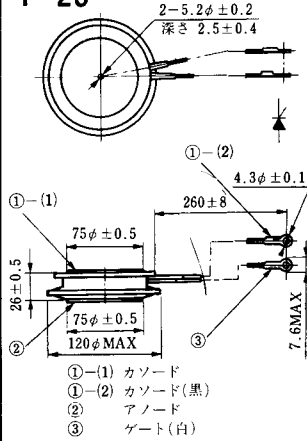
**T-23 (13-78A1A)**



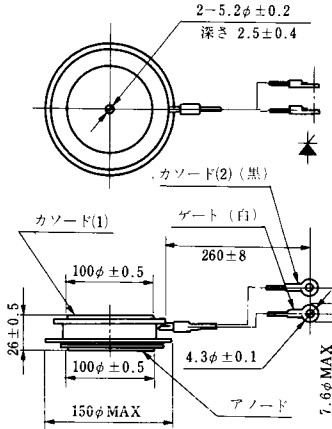
**T-24 (13-100C1A)**



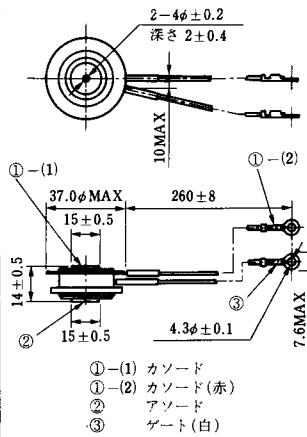
**T-25** (13-120A2A)



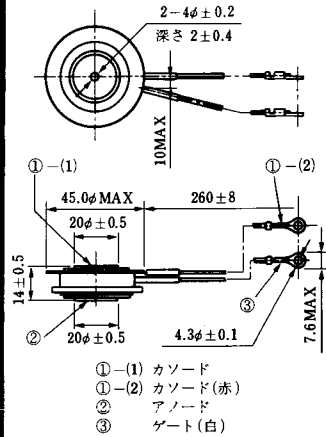
**T-26** (13-150A1A)



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



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



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



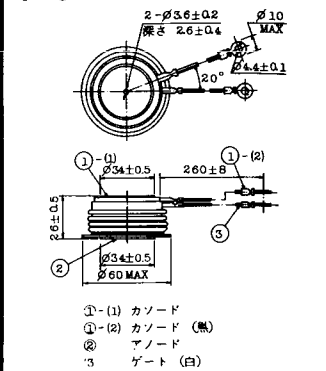
**T-30** (13-57A1A)



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



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



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



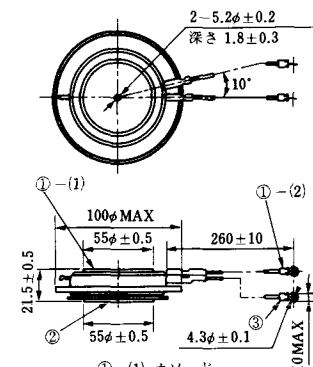
- ① カソード
- ② アノード
- ③ ゲート

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



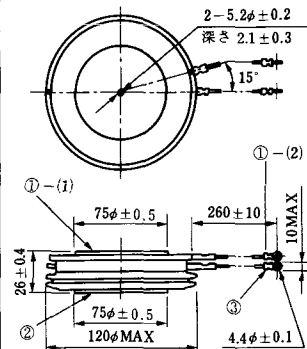
- ① カソード
- ② アノード
- ③ ゲート

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



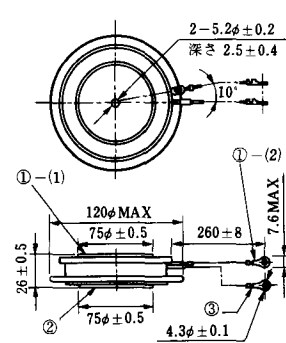
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



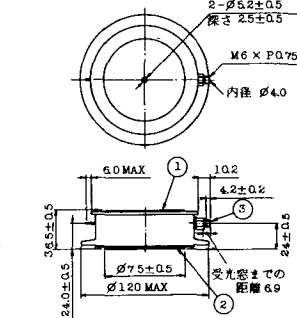
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



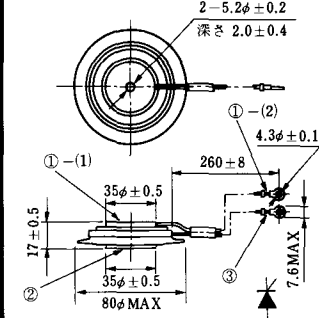
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



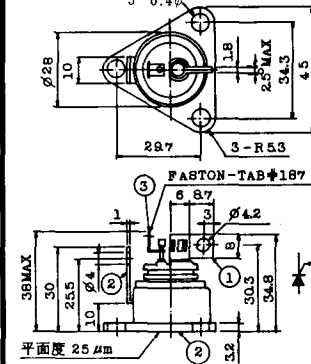
- ① カソード
- ② アノード
- ③ ゲート

**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

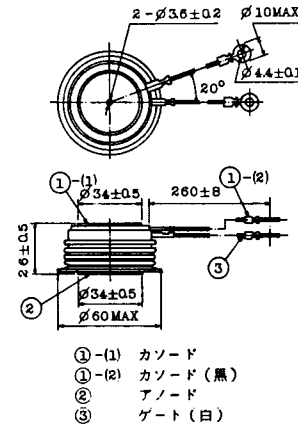
### T-41 (13-28A2A)



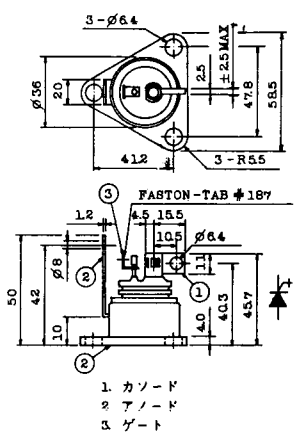
### T-42 (13-45F1A)



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



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



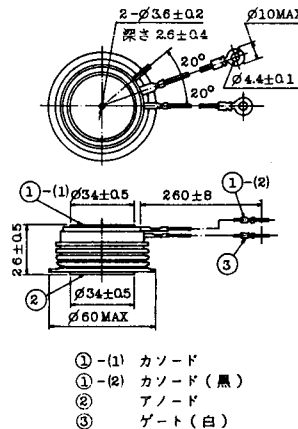
### T-45 (13-51B1A)



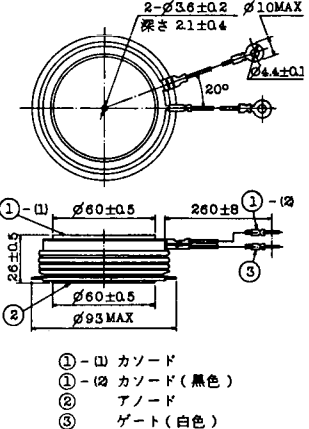
### T-46 (13-36B1A)



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

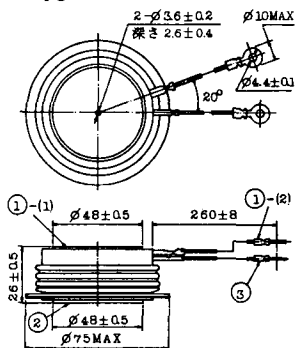


### T-48 (13-93C1A)





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)



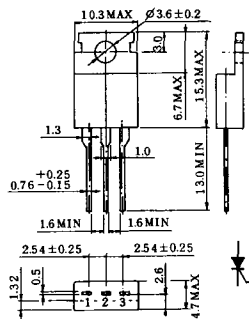
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



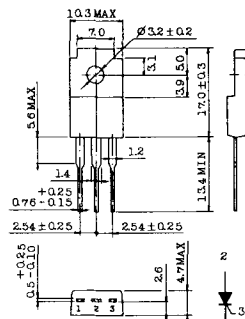
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



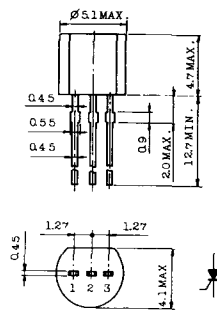
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



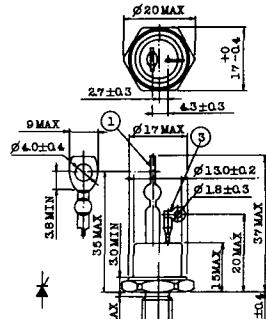
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



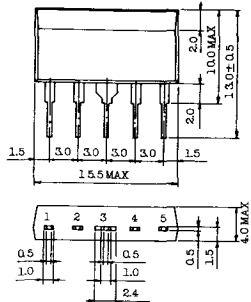
- 1 カソード
- 2 アノード
- 3 ゲート

T-56 (13-13C1A)



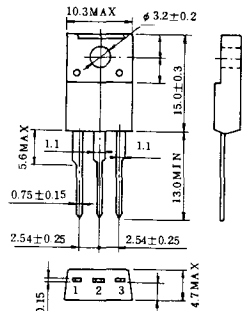
- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



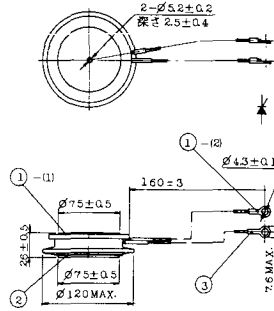
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



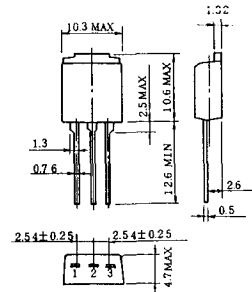
1. カソード
2. アノード
3. ゲート

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



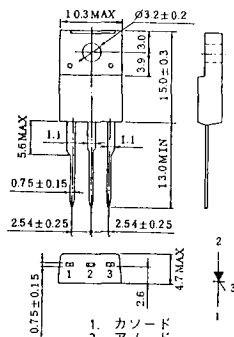
1. カソード
2. アノード
3. ゲート

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)



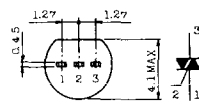
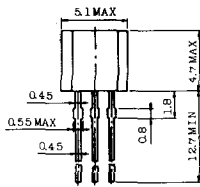
1. カソード
2. アノード
3. ゲート

TT-1



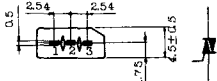
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



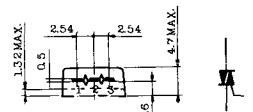
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



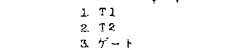
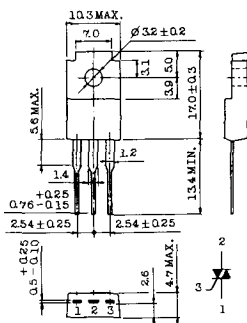
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



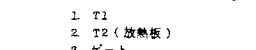
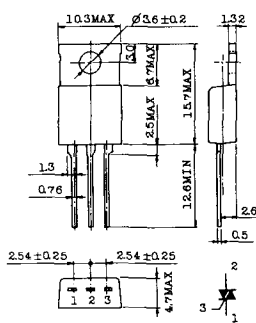
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



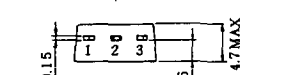
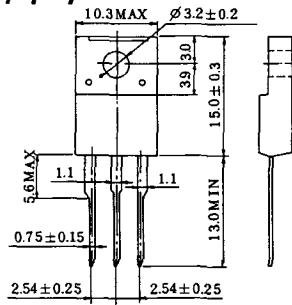
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



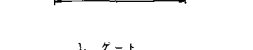
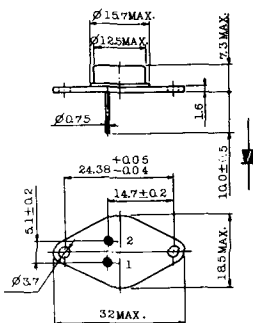
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

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



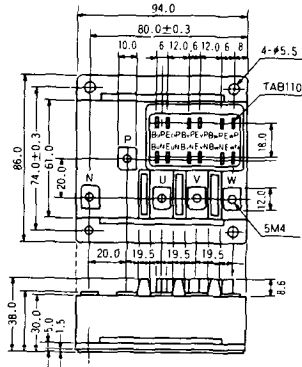
- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)



S-94B2A



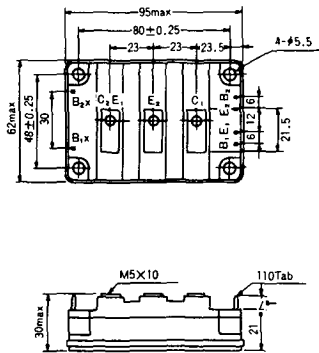
S-94D1A



S-95A1A



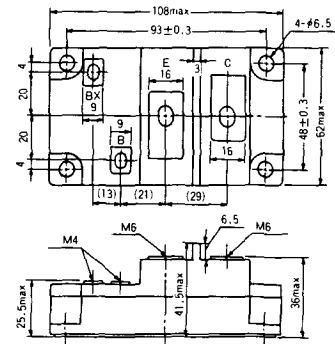
S-95B1A



S-98B1B



S-108A2A

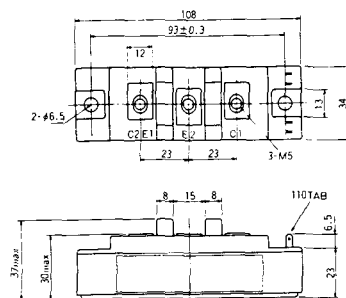




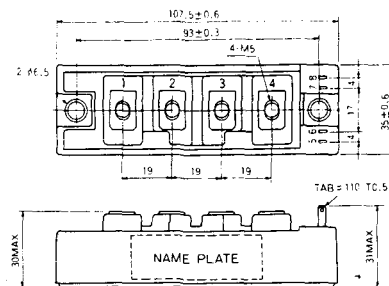
S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



### 2-22B1A



### 2-27A4A



### 2-33C1A



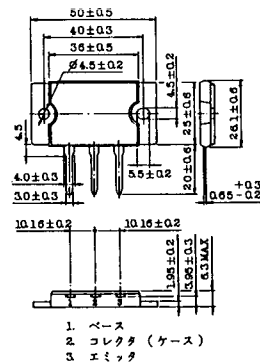
### 2-33D1A



### 2-33F1A



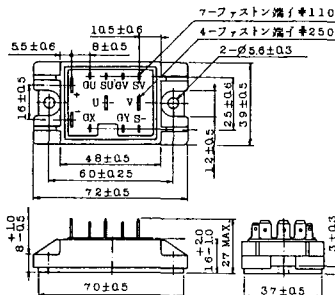
### 2-37A1A



2-48A3A



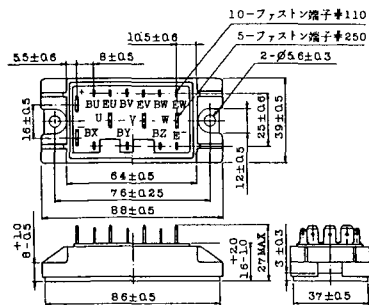
2-48A3B



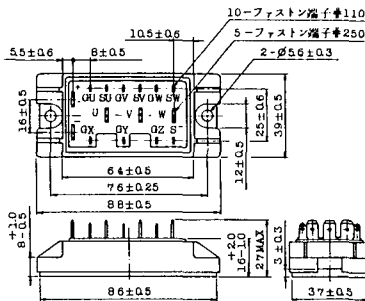
2-48A4A



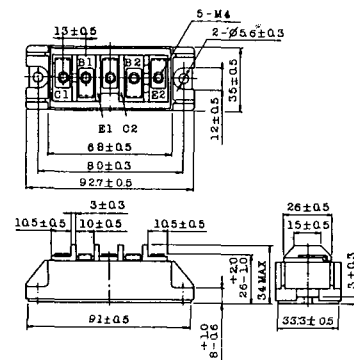
2-64A2A



2-64A2B



2-68A2A



2-68B2A



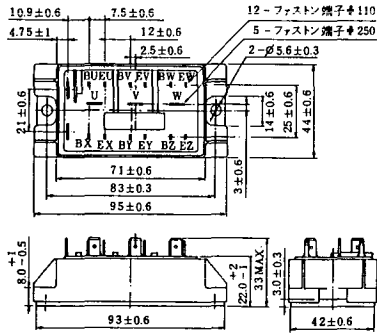
2-68C1A



2-68D2A



2-72A3A



2-80A1A



2-80B1A





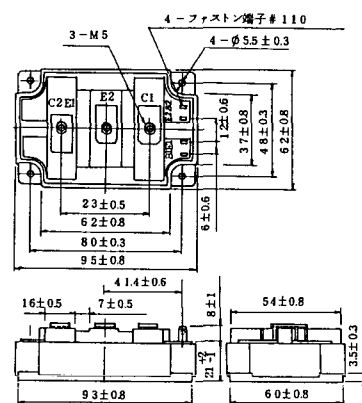
2-94D1A



2-96A3A



2-96A4A



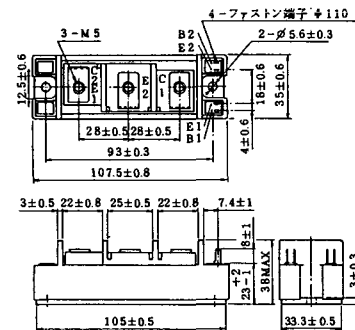
2-98B1A



2-98C2A



2-108A2A



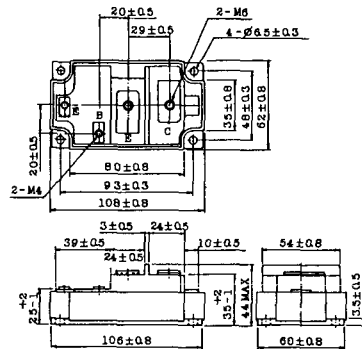
### 2-108B1A



### 2-109A3A



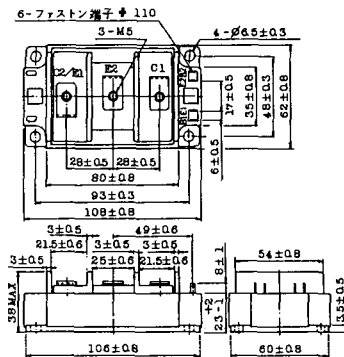
### 2-109A4A



### 2-109B3A

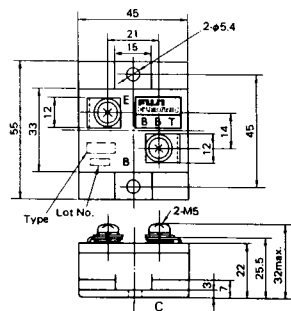


### 2-109B4A



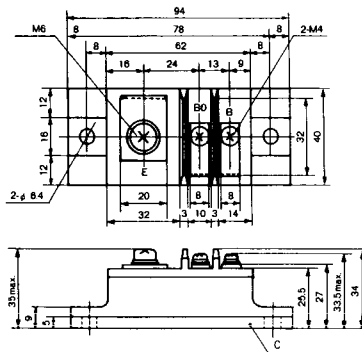
### BBT-II

BBTII  
1D200A-020



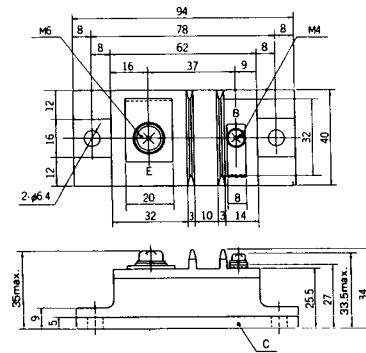
### BBT-III

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



### BBT-III

BBTIII  
ETN01-055  
ET1257



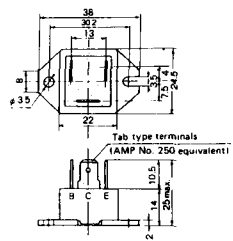
### BBT-IV

BBTIV  
1D500A-030

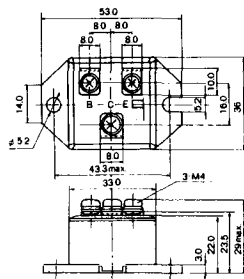




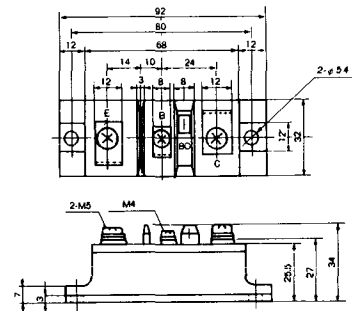
M-101



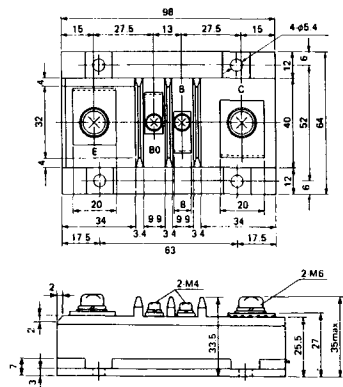
M-102



M-103



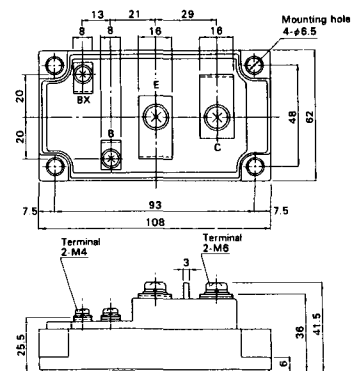
M-104



M-105



M-106



### M-107



### M-116

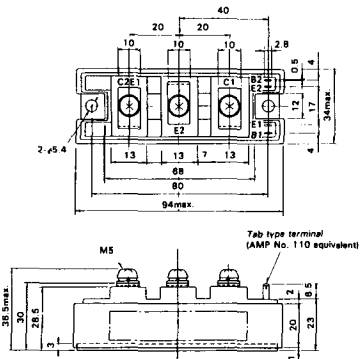




M-207



M-208



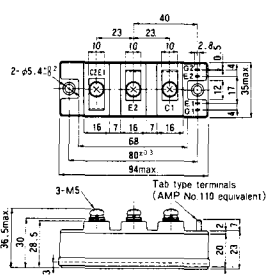
M-209



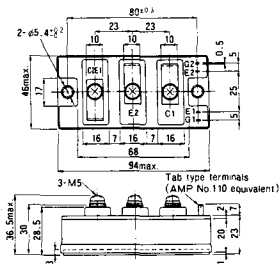
M-210



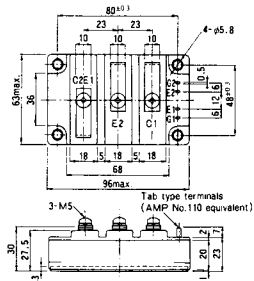
M-211



M-212

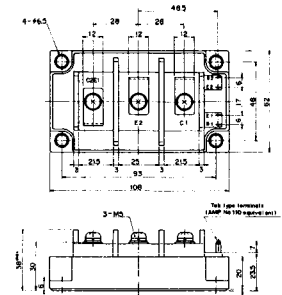


### M-213

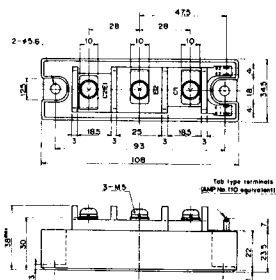


### M-214

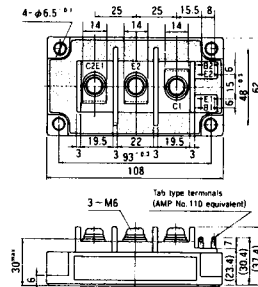
### M-215



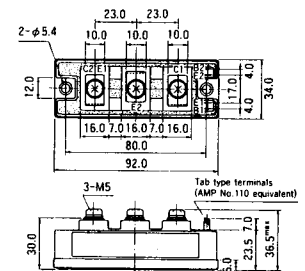
### M-216



### M-217



### M-218



M-219

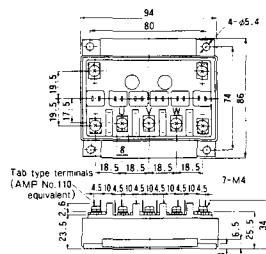




M-607



M-608



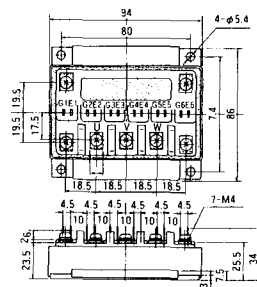
M-609



M-610



M-616





M-1A1A



M-2A1A



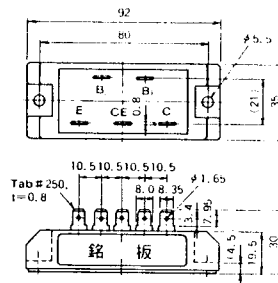
M-2B1A



M-2B2A



M-2C2A



M-2D4A





M-3C1A



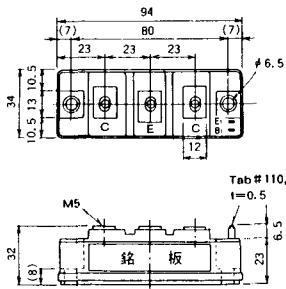
M-3D6A



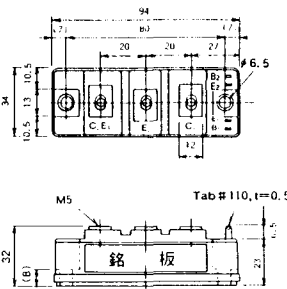
M-3E6A



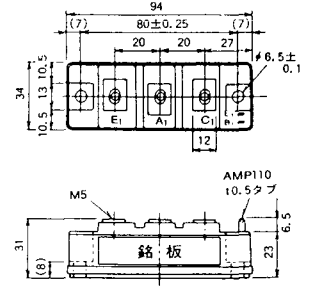
M-4A1A



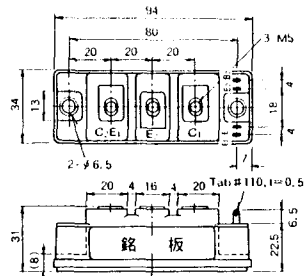
M-4A2A



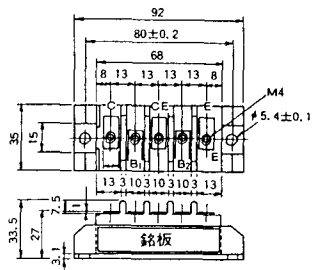
M-4A1B



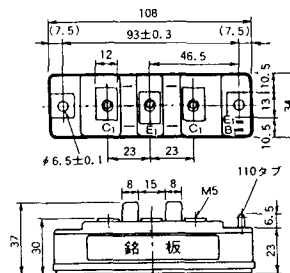
M-4A2B



M-4B2A



M-5A1A



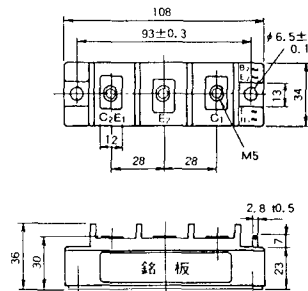
M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



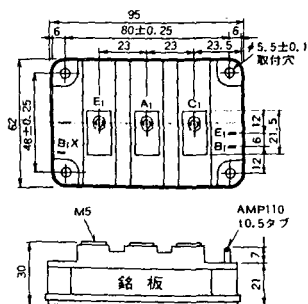
M-7B1A



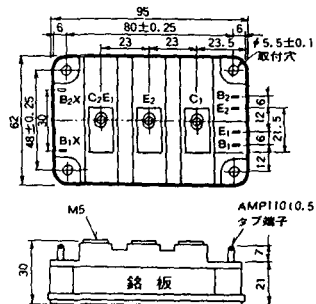
M-8A1A



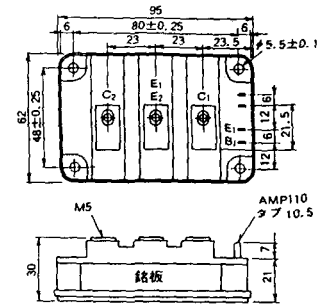
M-8A1B



M-8A2A



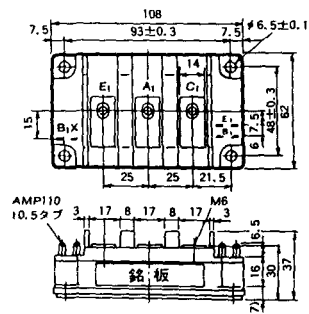
M-8A2B



M-8B2A



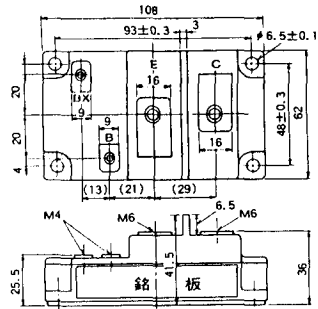
M-9A1A



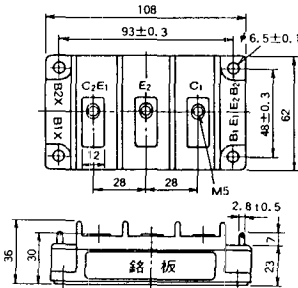
M-9A2A



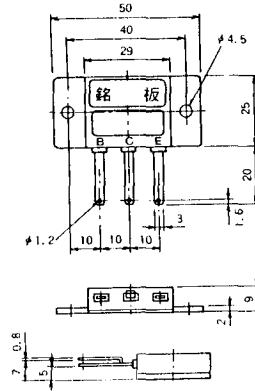
### M-9B1A



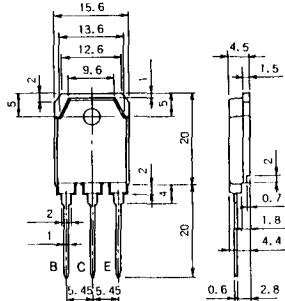
### M-9C2A



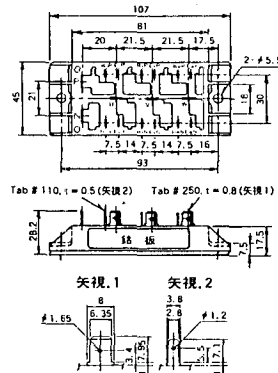
### M-1A1B



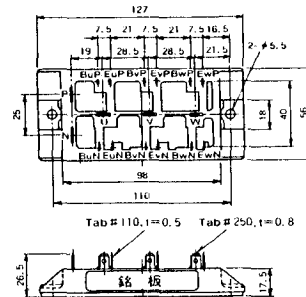
### M-1A1C



### M-2E6B



### M-2E6C







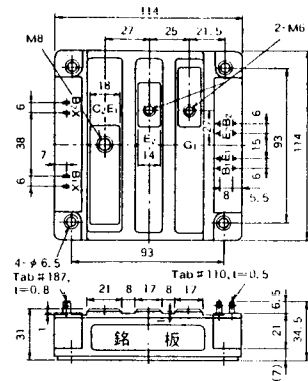
M-10A2A



M-10A2B



M-11A2A



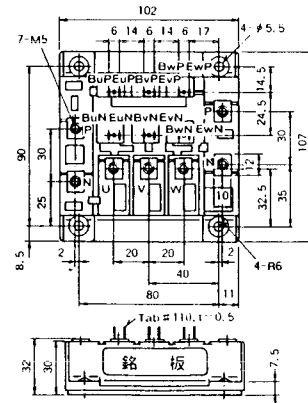
M-12A6A



M-12B6A



M-12B6B





M-9D2B



M-10A2C



H-101



Weight :480g

### H-201



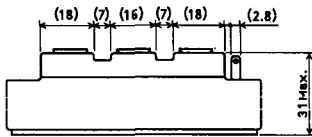
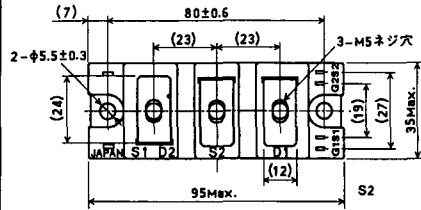
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

