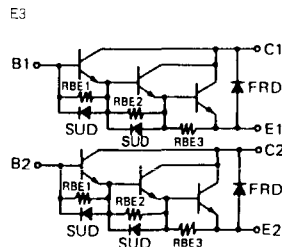
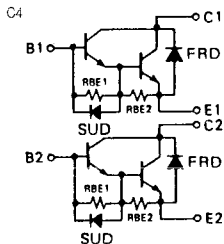


トランジスタ・モジュール (NPN, ダーリントン接続, 2個内蔵)

- ダーリントン・トランジスタ2個内蔵
- フリーホイール・ダイオード付
- 絶縁形
- 直流電流増幅率は70以上(定格電流にて)

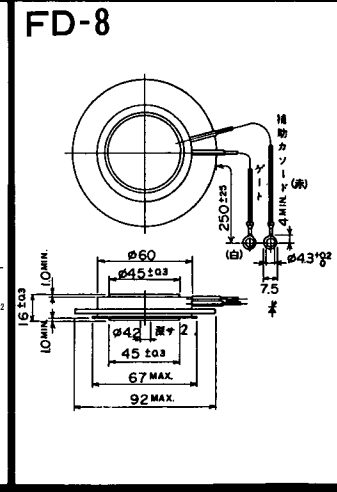
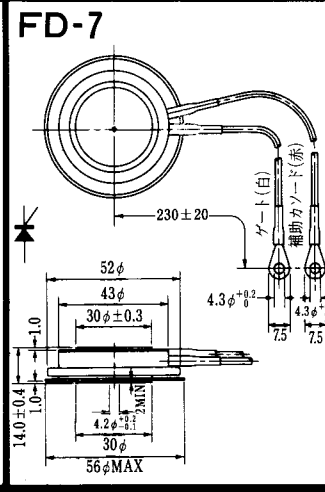
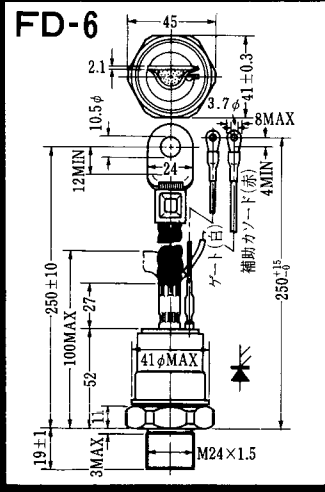
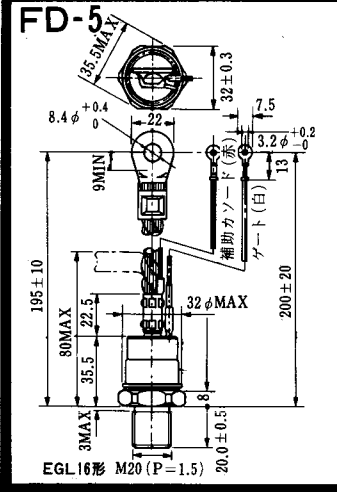
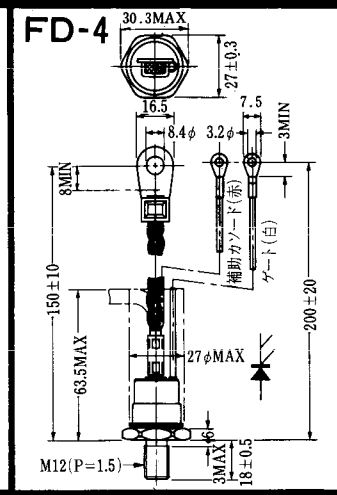
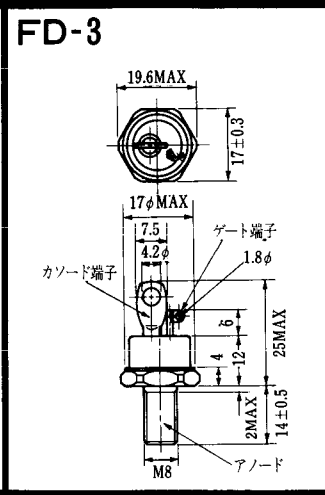
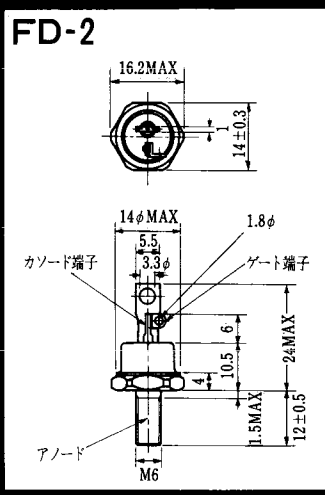
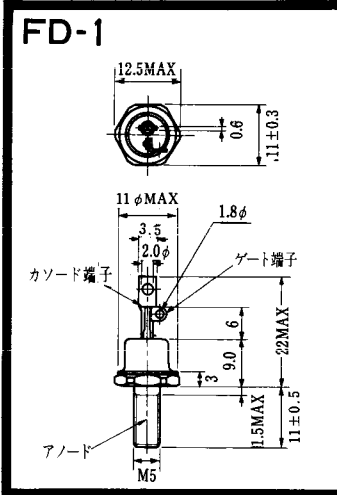
■等価回路



注1. 1トランジスタ当り。 注2. A.C. 1分間。

型名	最大定格										電気的特性										
	V <sub>CEO</sub> (V)	V <sub>CEO</sub> (SUS) V <sub>CEO</sub> # (V)		V <sub>EB0</sub> (V)	I <sub>C</sub> (A)	I <sub>CP</sub> (1ms) (A)	I <sub>B</sub> (A)	I <sub>F</sub> (A)	P <sub>C</sub>		T <sub>J</sub> (°C)	T <sub>112</sub> (°C)	V <sub>110</sub> (注2) (V)	I <sub>CEO</sub>		I <sub>EB0</sub>		V <sub>CEO</sub> (SUS)		h <sub>FE</sub>	
		最大	V <sub>CE</sub>						最大	V <sub>EB</sub>				最小	I <sub>C</sub>	最小	V <sub>CE</sub>	I <sub>C</sub>			
2D175S-050A	600	450	6	75	150	4.5	75	350	700	150	-40~125	2000	1.0	600	150	6	450	1.0	100	5	75
2D1200A-020	300	300 #	6	200	400	8.0	200	500	1000	150	-40~125	2500	1.0	300	200	6	250	1.0	100	5	200
EV1234	1000	800	6	50	100	10	50	500	1000	150	-40~125	2500	1.0	1000	400	6	800	1.0	100	5	50
EV1255	1000	800	6	100	200	10	100	800	1600	150	-40~125	2500	1.0	1000	800	6	800	2.0	200	5	100
EV1274	1000	1000 #	6	20	40	3.0	20	200	400	150	-40~125	2000	1.0	1000	400	6			100	5	20
EV1277	1000	800	6	30	60	3.0	30	300	600	150	-40~125	2500	1.0	1000	400	6	800	1.0	100	5	30
EVK71-050	600	450	6	75	150	4.5	75	350	700	150	-40~125	2000	1.0	600	200	6	450	1.0	70	5	75
EVK71-055	600	550	6	75	150	4.5	75	350	700	150	-40~125	2500	1.0	600	100	6	550	1.0	70	5	75
EVL31-050	600	450	6	100	200	6.0	100	500	1000	150	-40~125	2500	1.0	600	300	6	450	1.0	100	5	100
EVL31-055	600	550	6	100	200	6.0	100	500	1000	150	-40~125	2000	1.0	600	300	6	550	1.0	70	5	100
EVL32-055	600	550	6	120	240	8.0	120	500	1000	150	-40~125	2500	1.0	600	100	6	550	1.0	70	5	120
EVM31-050A	600	450	6	150	300	9.0	150	600	1200	150	-40~125	2500	1.0	600	100	6	450	1.0	70	5	150





FD-9



FD-10



FD-11

FD-12





《寸法図単位：mm》

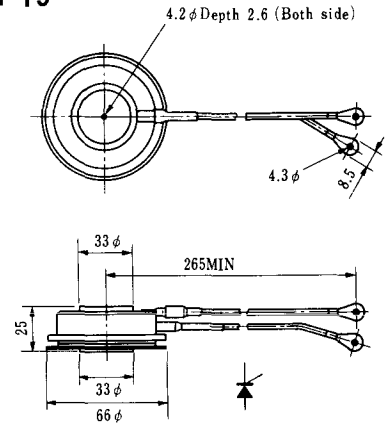
### H-17



### H-18



### H-19



### H-20



### H-21



### H-22



### H-23

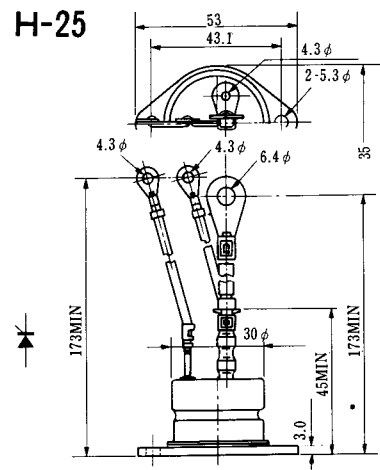


① アノード  
② カソード  
③ ゲート

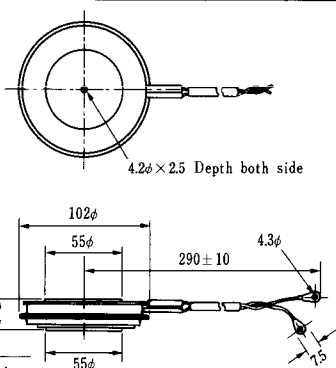
### H-24



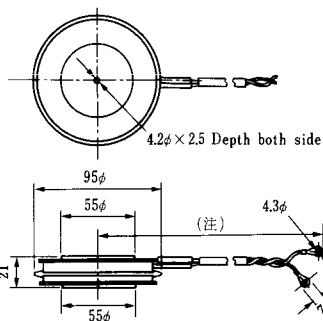
### H-25



### H-26

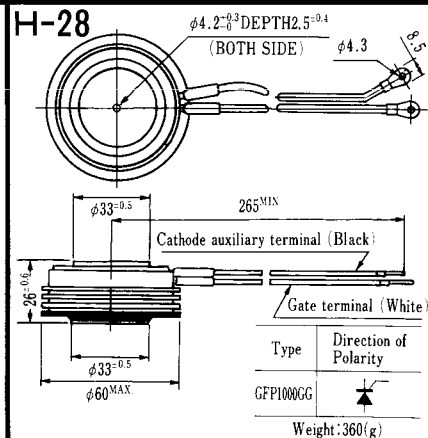


### H-27



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

### H-28



Type	Direction of polarity
CA12	

Type	Direction of polarity
CF11V	

Type	Direction of Polarity
GFP100GG	

Weight: 360(g)

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



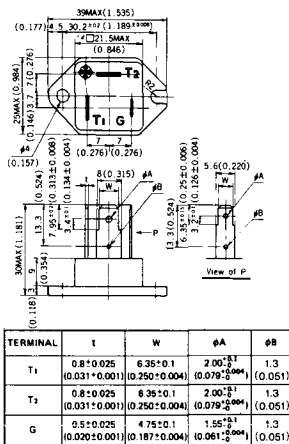


Note : The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



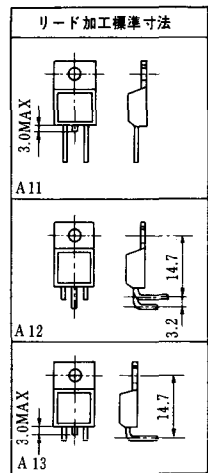
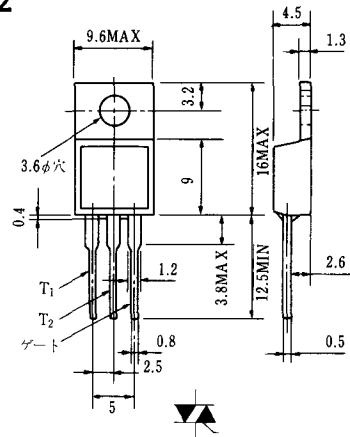
Note : The thickness is a dimension in press at the rated mounting force. Weight: 1,460(g)

### HT-1

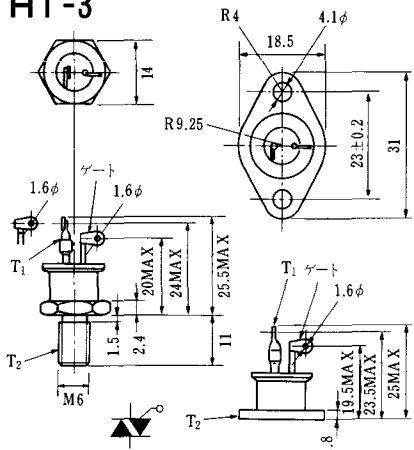


Unit in mm(inch)

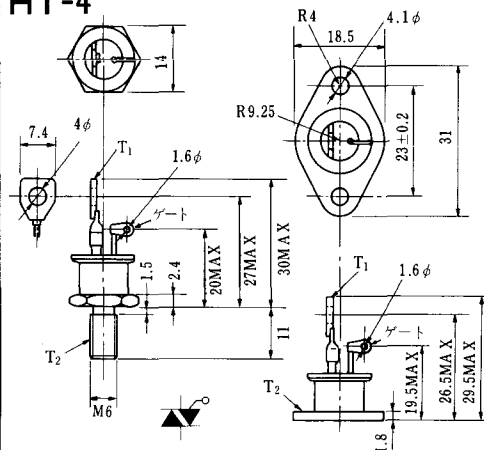
### HT-2



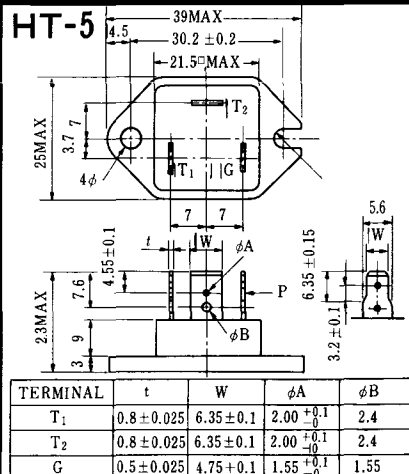
### HT-3



### HT-4



### HT-5



### M-1



### M-2



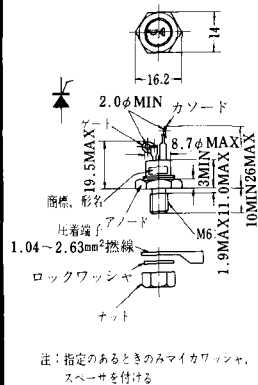
### M-3



### M-4



### M-5



### M-6



### M-7



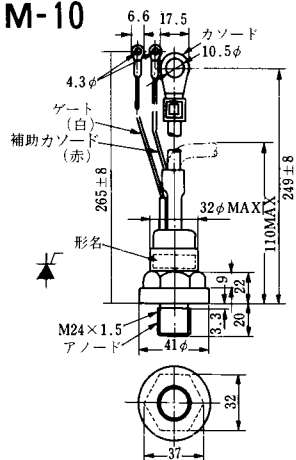
### M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15



M-16





M-25



M-26



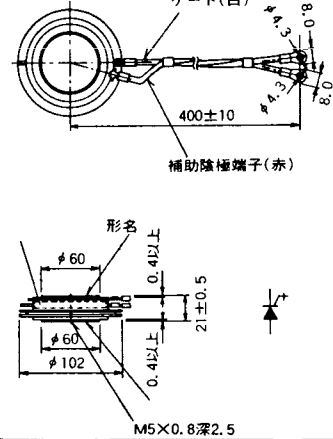
M-27



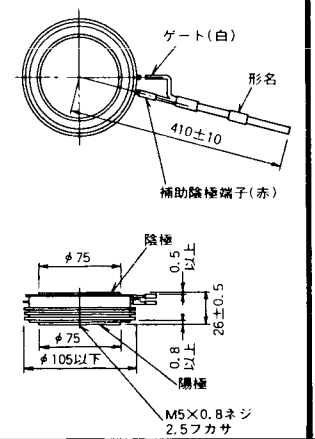
M-28



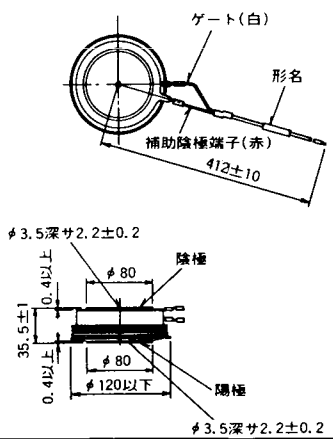
M-29



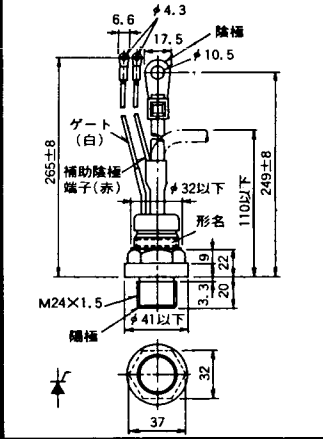
M-30



M-31



M-32



### M-33



### M-34



### MT-1



### MT-2



### MT-3



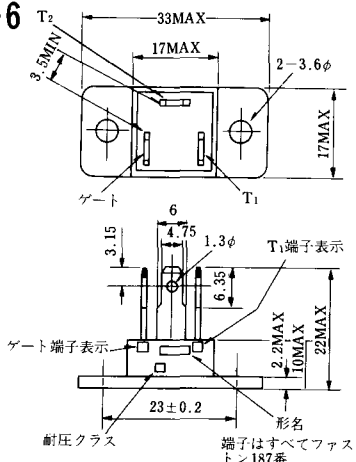
### MT-4



### MT-5



### MT-6

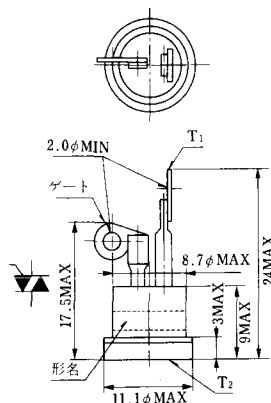


### MT-7

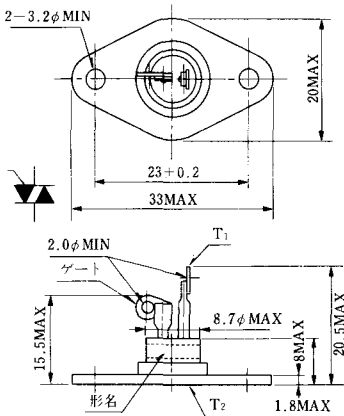




MT-8



MT-9



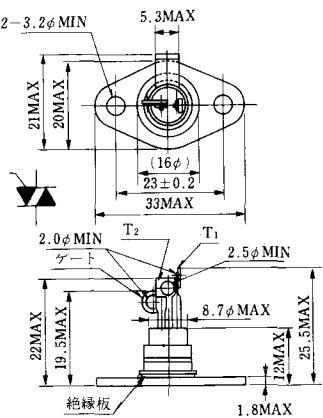
MT-10



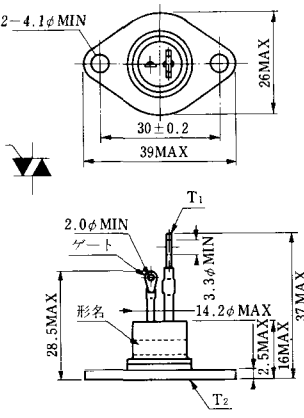
MT-11



MT-12



MT-13



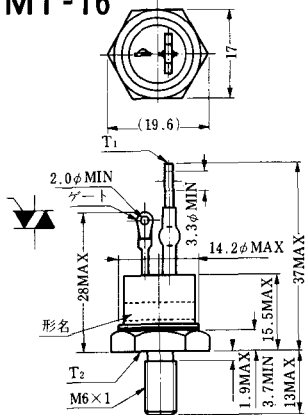
MT-14



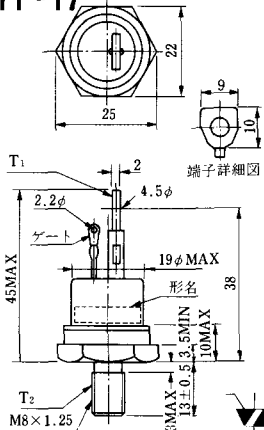
MT-15



MT-16

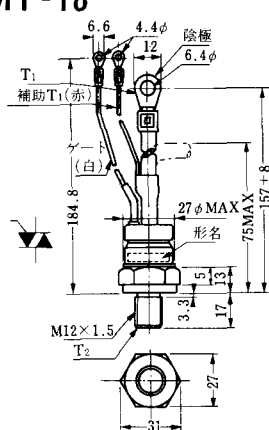


MT-17

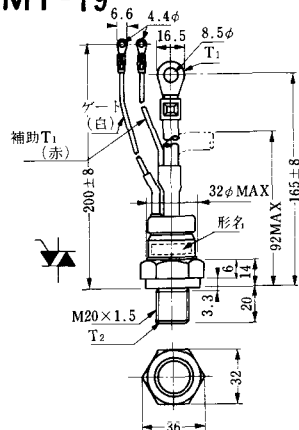


端子詳細図

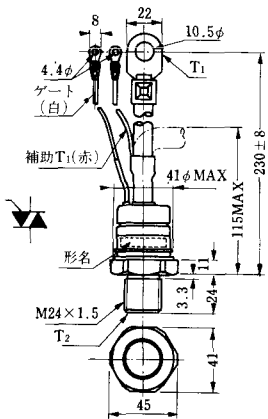
MT-18



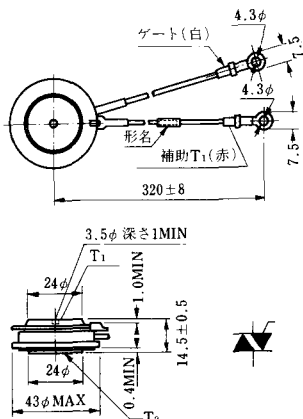
MT-19



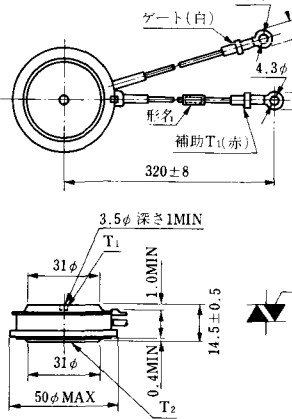
MT-20



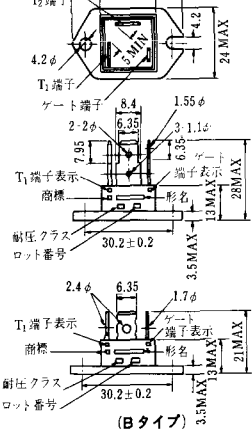
MT-21



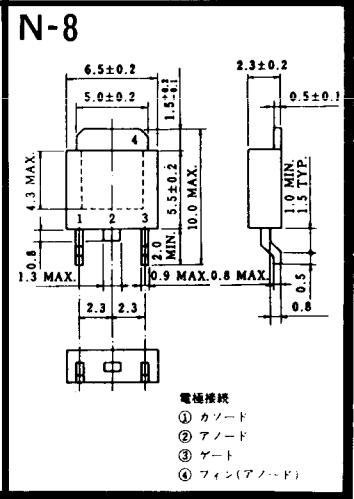
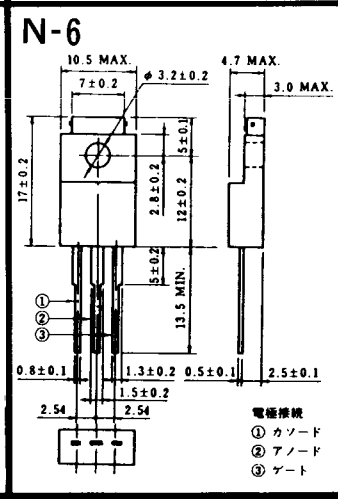
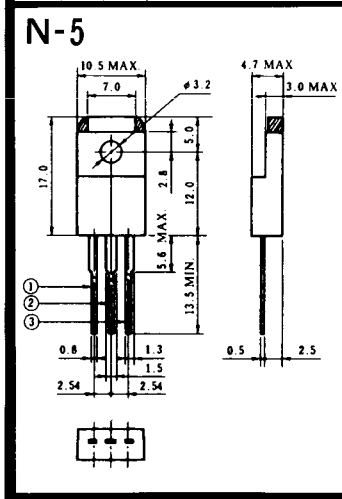
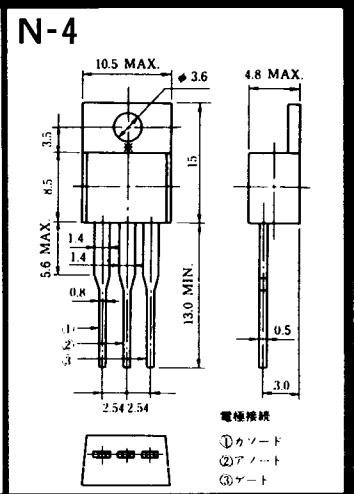
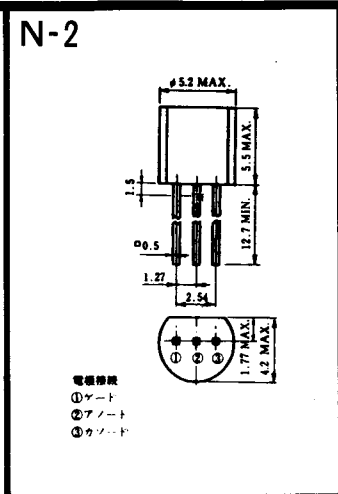
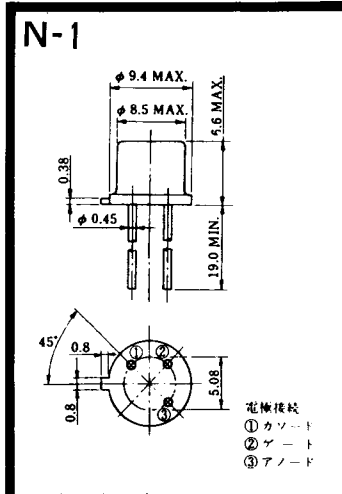
MT-22



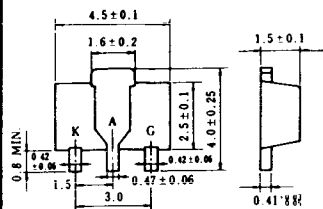
MT-23







N-9



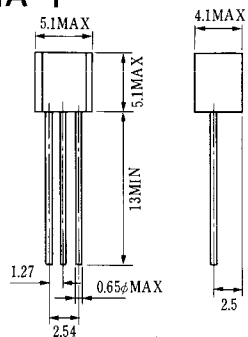
電極接続

K : カソード

A : アノード

G : ゲート

### NA-1

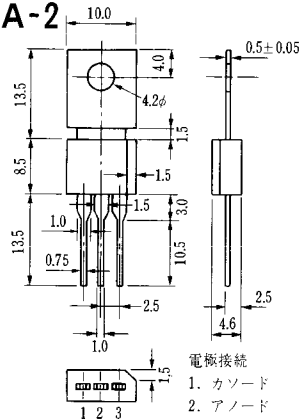


電極接続

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

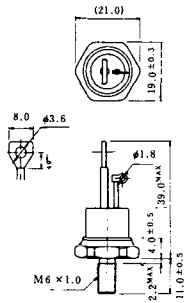
JEDEC: TO-202AA

### NI-1



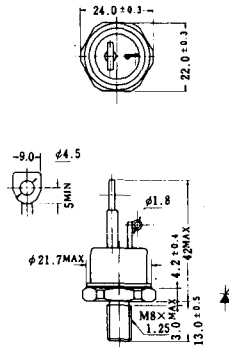
### NI-2

29RD



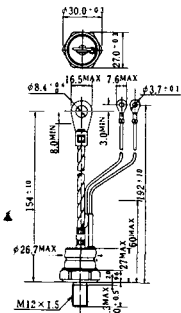
### NI-3

39RC  
59RC  
39RF  
59RF



### NI-4

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



### NI-5

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



### NI-6

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



### NI-7

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



### NI-8

89RW  
129RW



### NI-9

259RW  
309RW



### NI-10

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



### NI-11

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



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

### NI-12

403PAB  
503PAB  
503PLB



### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



### NI-14

358RGA



### NI-15

359RGA







NI-24

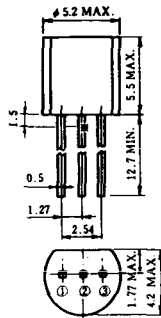
2001PGB<sup>r</sup> JE



NI-25

NI-26

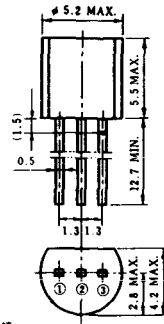
### NT-1



電極接続

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

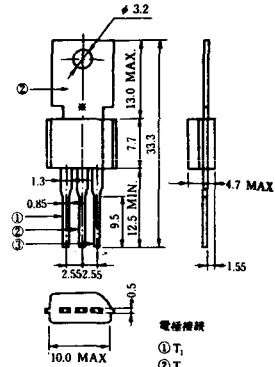
### NT-2



電極接続

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

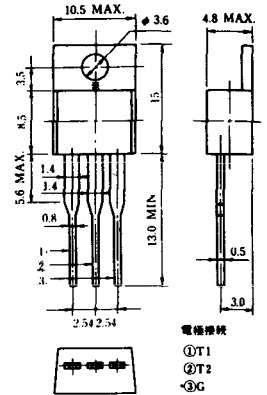
### NT-3



電極接続

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

### NT-4



電極接続

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

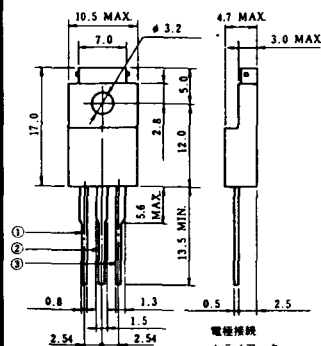
### NT-5



電極接続  
トライアック

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

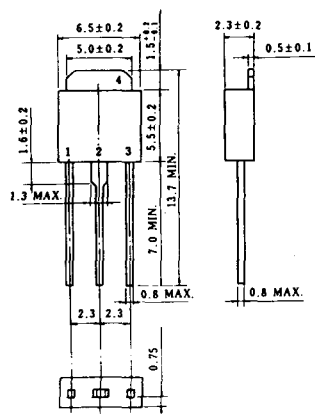
### NT-6



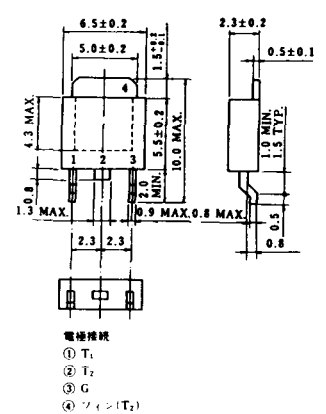
電極接続  
トライアック

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

### NT-7



### NT-8



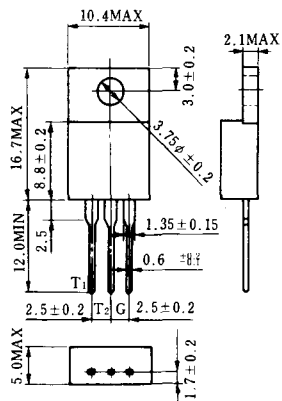
電極接続

- ① T<sub>1</sub>
- ② T<sub>2</sub>
- ③ G
- ④ シェン(T<sub>2</sub>)

# S-1



# ST-1



SA-1



SA-2



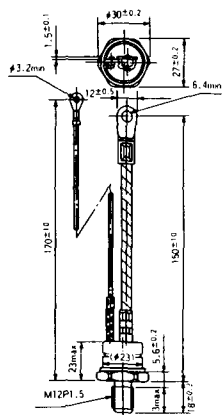
SA-3



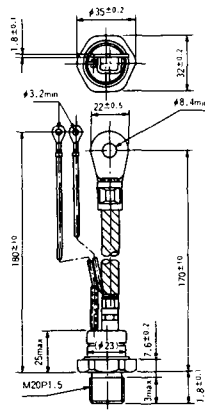
SA-4



SA-5



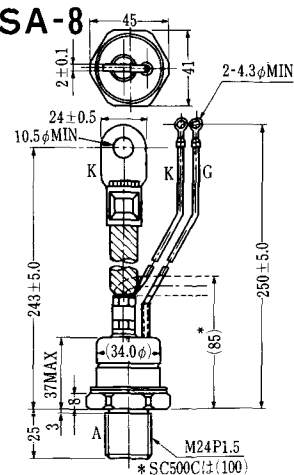
SA-6



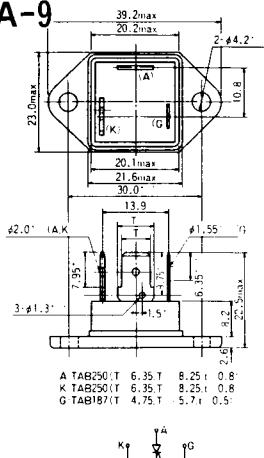
SA-7



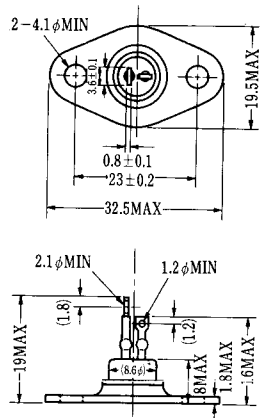
SA-8



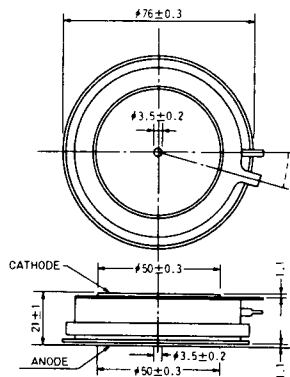
### SA-9



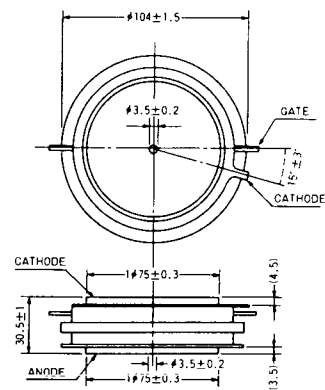
### SA-10



### SA-11



### SA-12

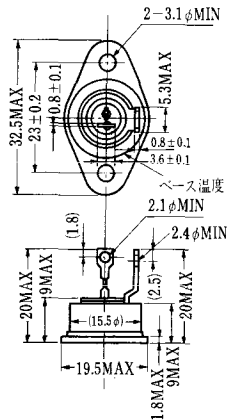


SAT-1

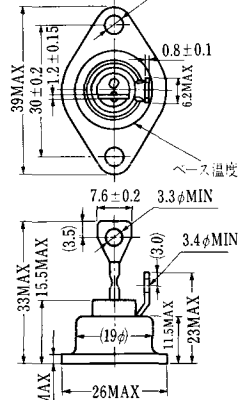


T1 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 T2 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)  
 C 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

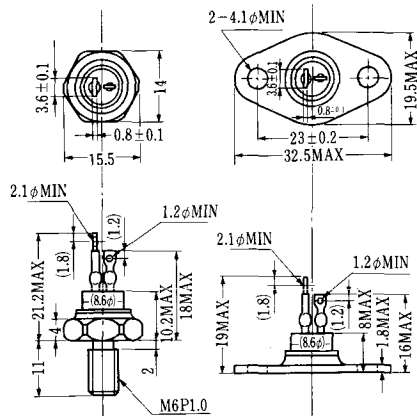
SAT-2



SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



SAT-9



SAT-10



SAT-11



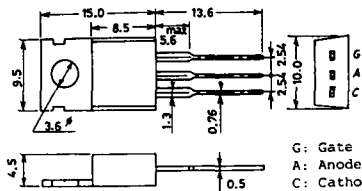


### SY-1 (1096A)



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

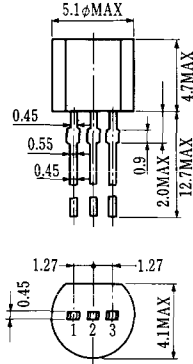


1192A



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)**



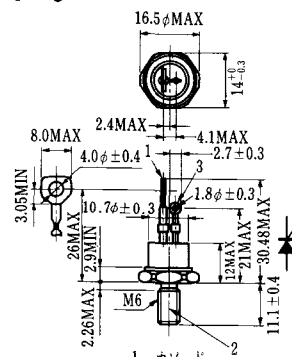
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 ゲート

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

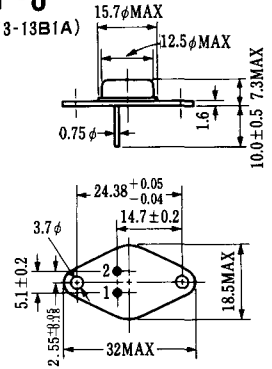


- 1 カソード
- 2 アノード
- 3 ゲート

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

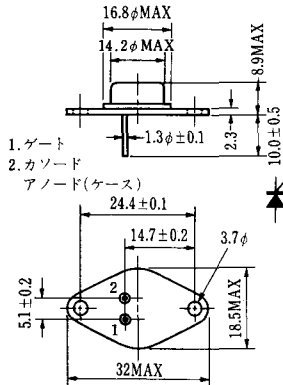


**T-8 (13-13B1A)**



1. ゲート
2. カソード
3. アノード(ケース)

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



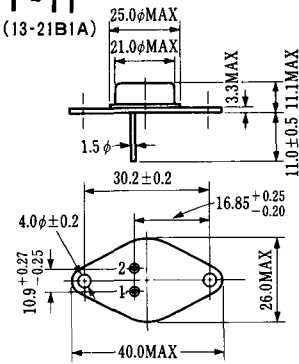
1. ゲート
2. カソード
- アノード(ケース)

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



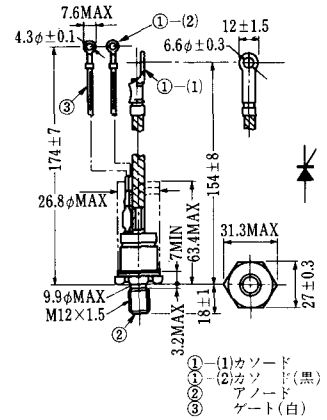
1. カソード
2. アノード
3. ゲート

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



1. ゲート
2. カソード
- アノード(ケース)

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



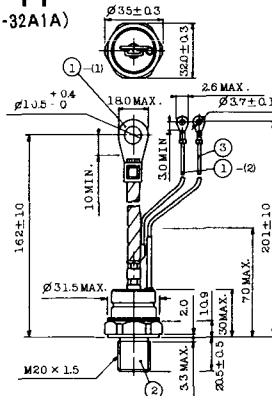
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



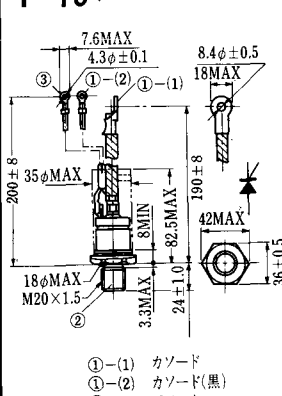
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

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



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

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



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

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



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

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



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



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



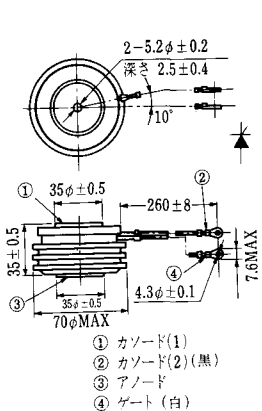
**T-20 (13-52C1A)**



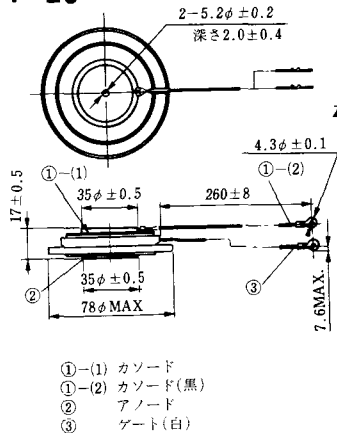
**T-21 (13-60A1A)**



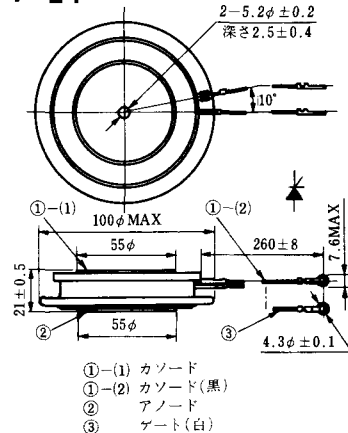
**T-22 (13-70C1A)**



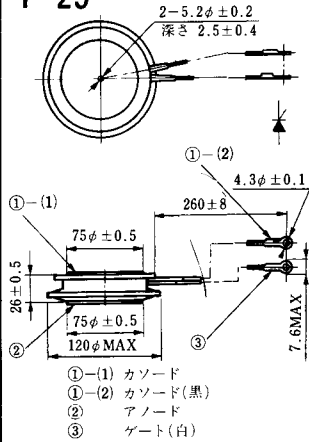
**T-23 (13-78A1A)**



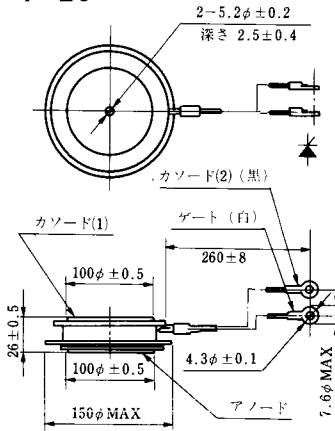
**T-24 (13-100C1A)**



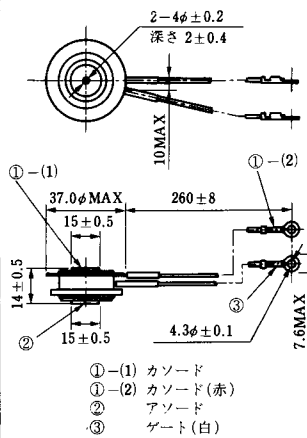
**T-25** (13-120A2A)



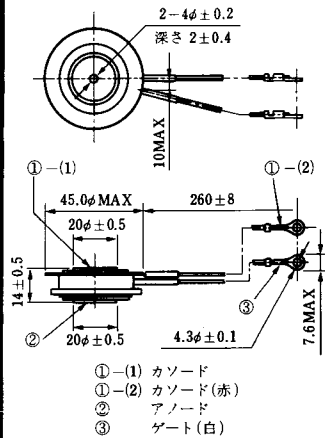
**T-26** (13-150A1A)



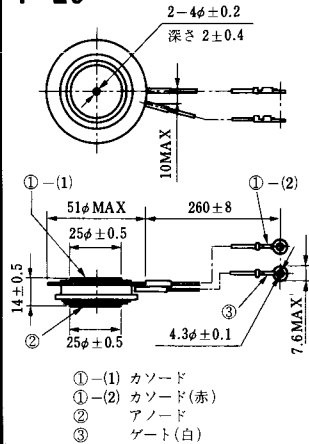
**T-27** (13-37A1A)



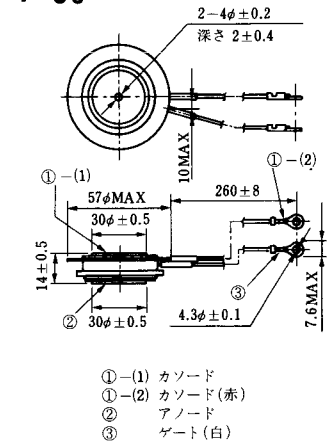
**T-28** (13-45E1A)



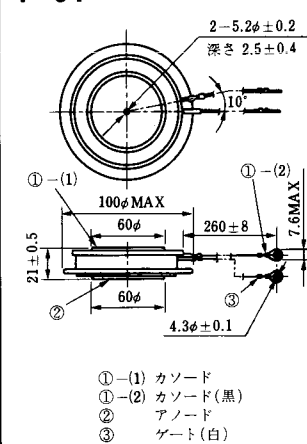
**T-29** (13-51A1A)



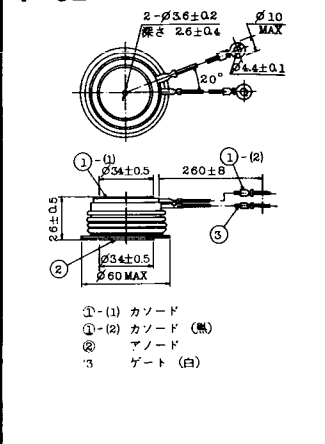
**T-30** (13-57A1A)

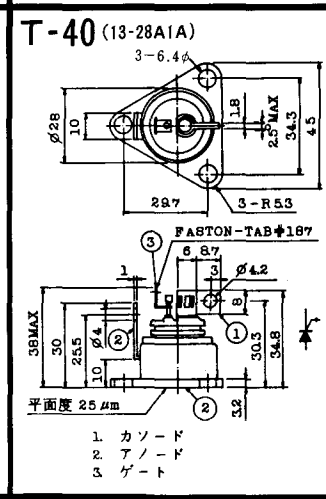
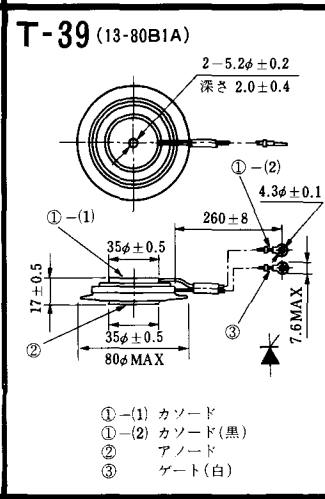
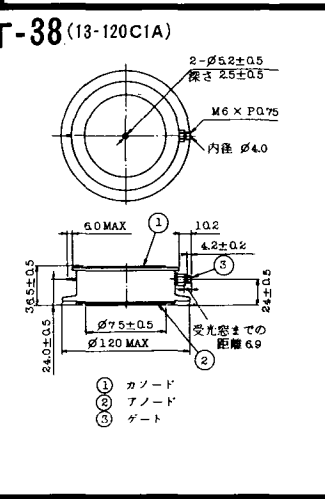
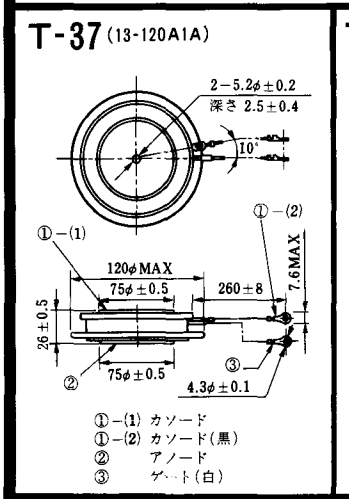
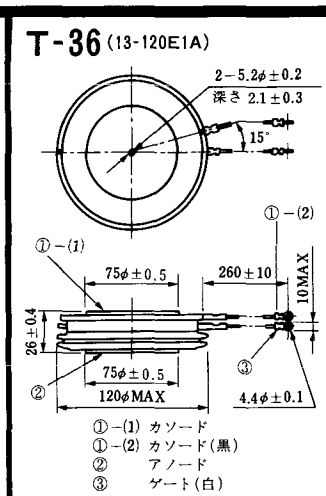
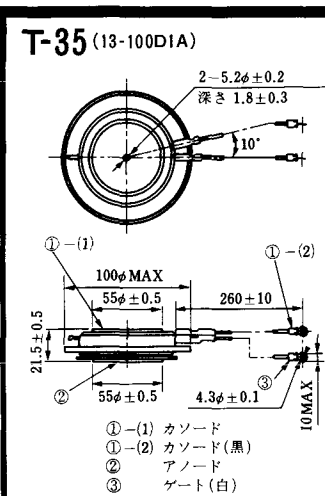
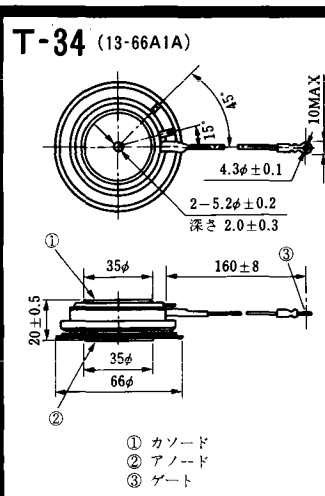
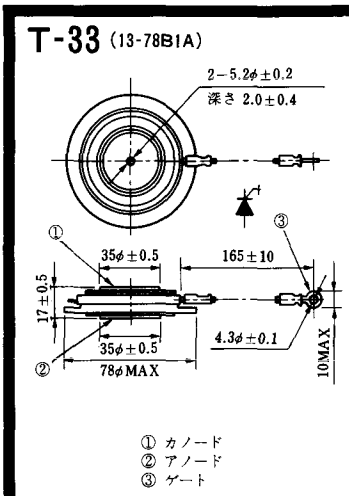


**T-31** (13-100E1A)

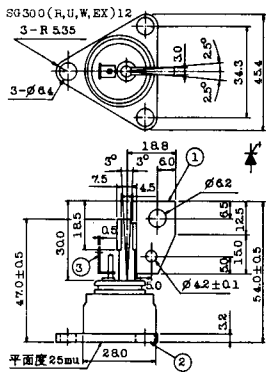


**T-32** (13-60E3A)



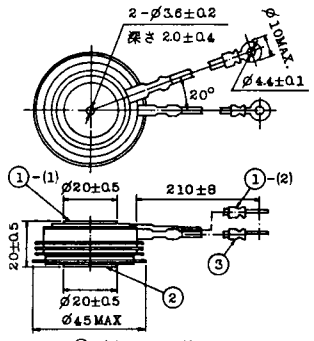


### T-41 (13-28A2A)



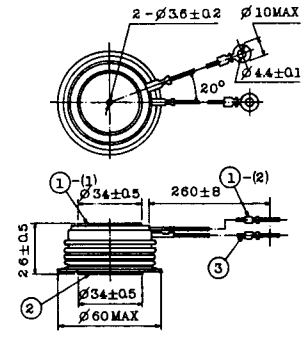
- 1 カソード
- 2 アノード
- 3 ゲート

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



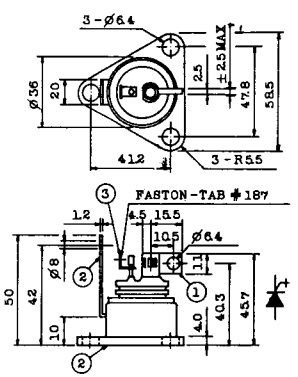
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



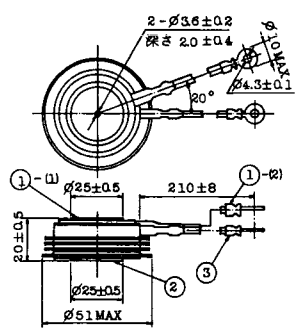
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



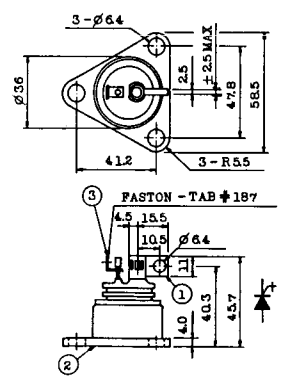
- 1 カソード
- 2 アノード
- 3 ゲート

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



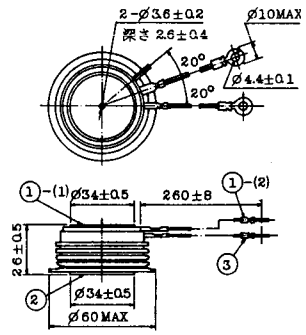
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



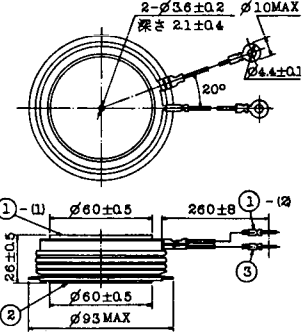
- 1 カソード
- 2 アノード
- 3 ゲート

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



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

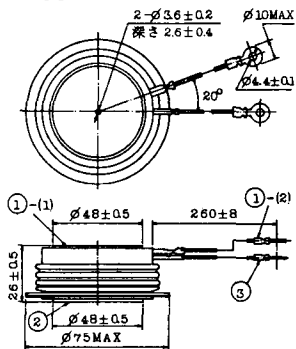
### T-48 (13-93C1A)



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

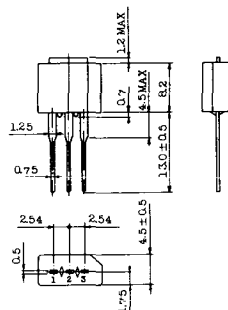


### T-49 (13-75A1A)



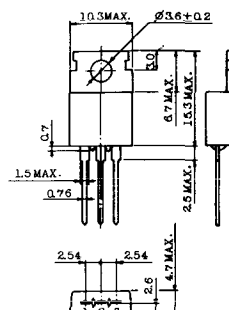
- 1-① カソード
- 1-② カソード (黒)
- 2 アノード
- 3 ゲート (白)

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



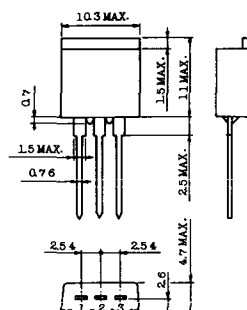
- 1 カソード
- 2 アノード
- 3 ゲート

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



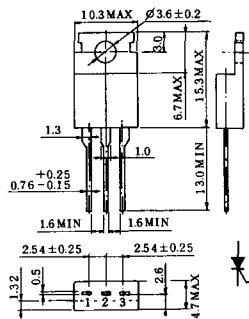
- 1 カソード
- 2 アノード
- 3 ゲート

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



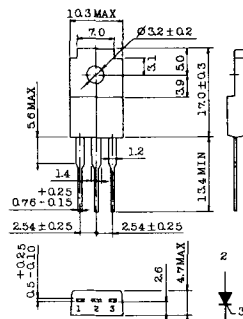
- 1 カソード
- 2 アノード
- 3 ゲート

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



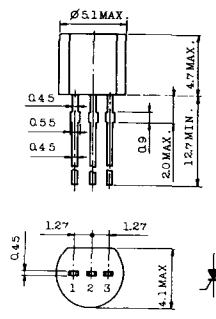
- 1 カソード
- 2 アノード
- 3 ゲート

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



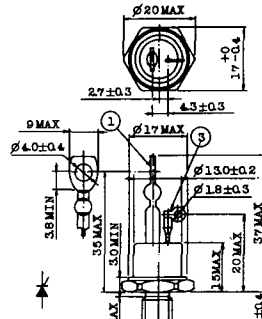
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 アノード

### T-56 (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



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

T-58 (13-10H1B)



1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



- 1-(1) カソード
- 1-(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)



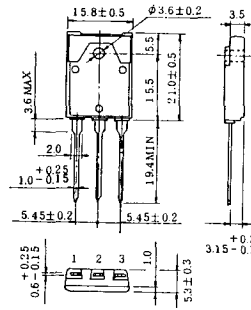
1. ゲート
2. アノード
3. カソード

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



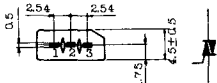
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



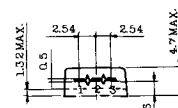
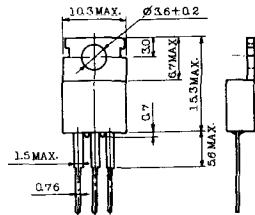
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

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



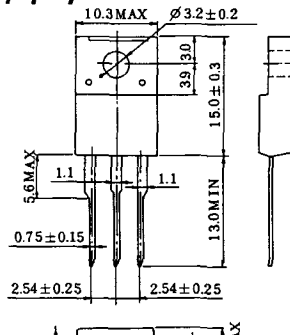
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



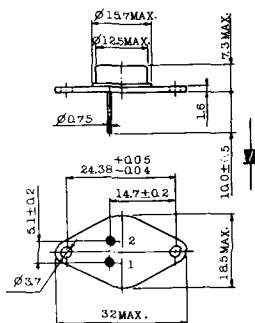
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



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

TT-8



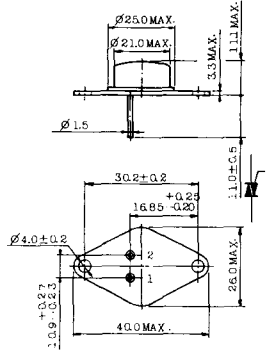
- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)

TT-9



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

TT-10



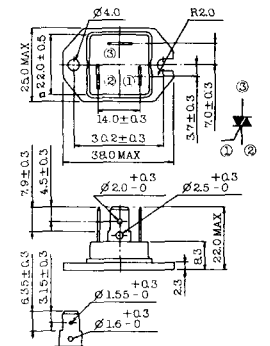
- 1. ゲート
- 2. T<sub>1</sub>
- 3. T<sub>2</sub> (ケース)

TT-11



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

TT-12



ゲート端子詳細

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

TT-13



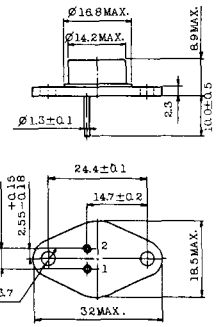
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-14



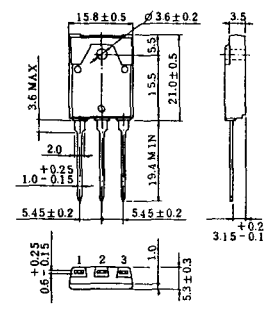
- 1, 2: T<sub>2</sub>
- 3: GATE
- 4: T<sub>1</sub>

TT-15 (13-14A1B)



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

TT-16 (13-16A1A)



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



# TS-8



1. ベース
2. エミッタ  
コレクタ  
(ケース)

### S-62A1A



### S-80A1A



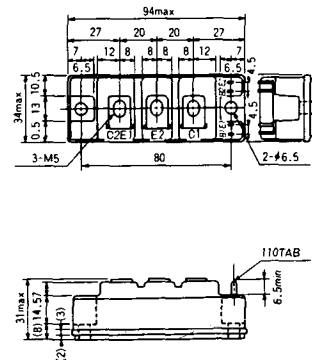
### S-88D1A



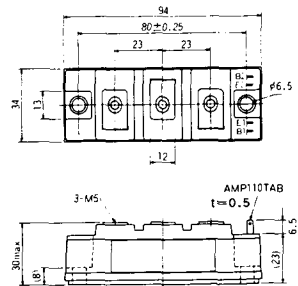
### S-92B1A



### S-94B1A



### S-94B1B



S-94B2A



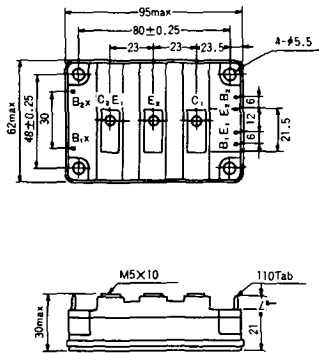
S-94D1A



S-95A1A



S-95B1A



S-98B1B

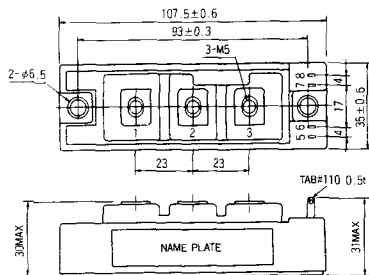


S-108A2A





S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



### 2-22B1A



### 2-27A4A



### 2-33C1A



### 2-33D1A



### 2-33F1A



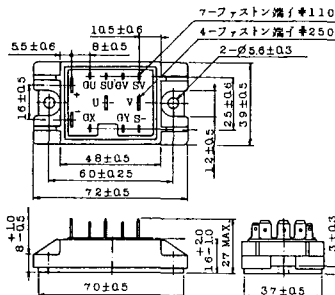
### 2-37A1A



2-48A3A



2-48A3B



2-48A4A



2-64A2A



2-64A2B



2-68A2A



2-68B2A



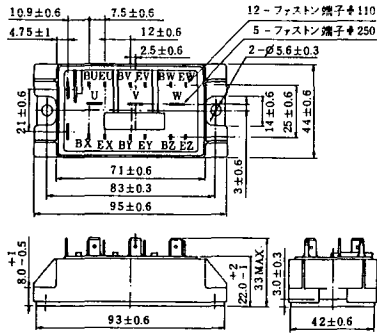
2-68C1A



2-68D2A



2-72A3A



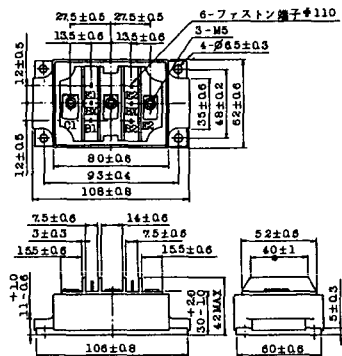
2-80A1A



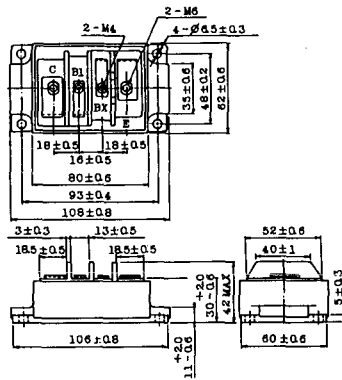
2-80B1A



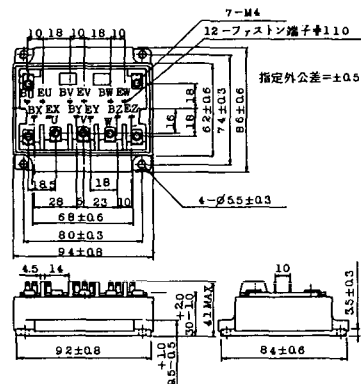
## 2-80C1A



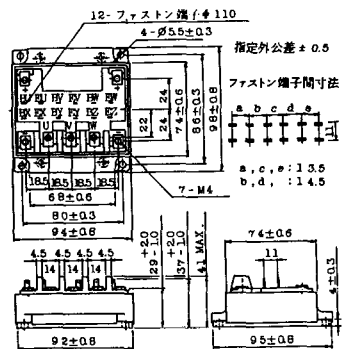
## 2-80D2A



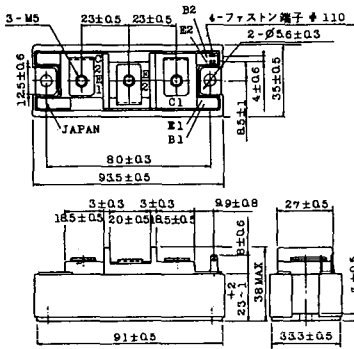
## 2-94A2A



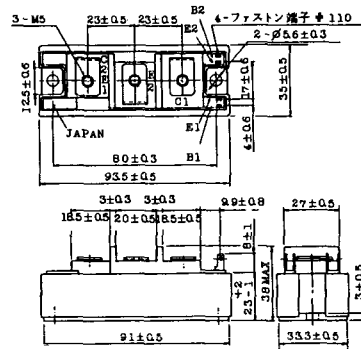
## 2-94B1A



## 2-94C2A



## 2-94C3A



### 2-94D1A



### 2-96A3A



### 2-96A4A



### 2-98B1A



### 2-98C2A



### 2-108A2A



### 2-108B1A



### 2-109A3A



### 2-109A4A



### 2-109B3A



### 2-109B4A



### BBT-II

BBTII  
1D200A-020



### BBT-III

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



### BBT-III

BBTIII  
ETN01-055  
ET1257



### BBT-IV

BBTIV  
1D500A-030





M-101



M-102



M-103



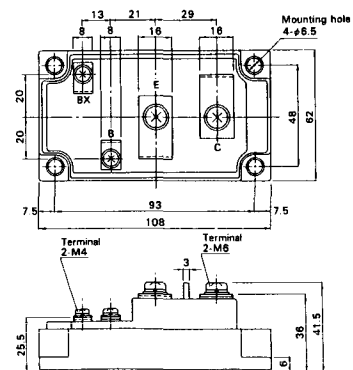
M-104



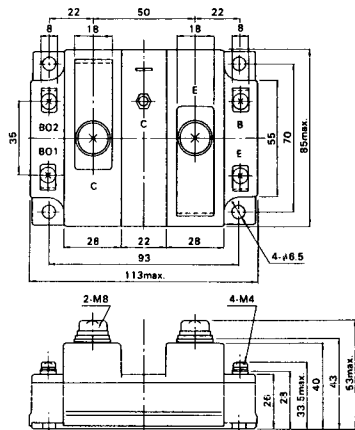
M-105



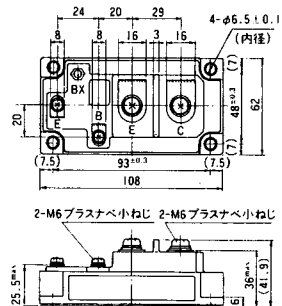
M-106



### M-107



### M-116



M-201



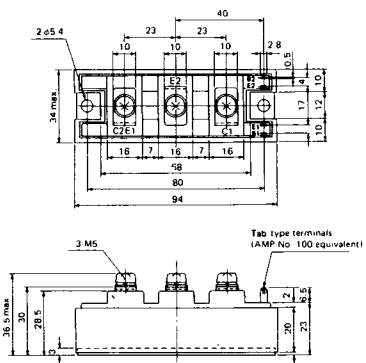
M-202



M-203



M-204



M-205



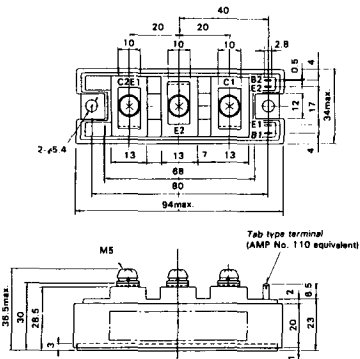
M-206



M-207



M-208



M-209



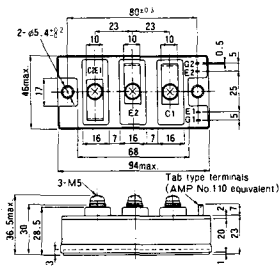
M-210



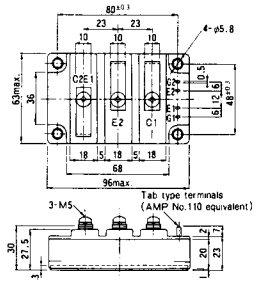
M-211



M-212

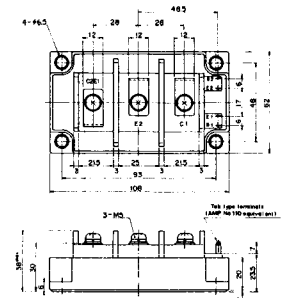


M-213

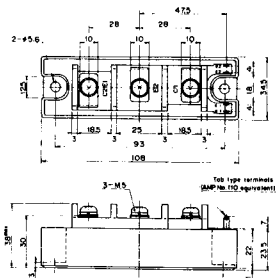


M-214

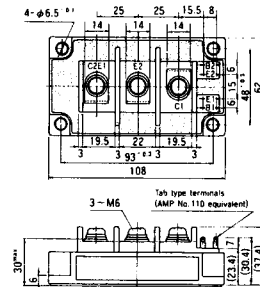
M-215



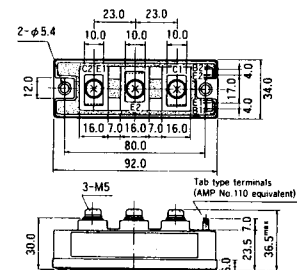
M-216



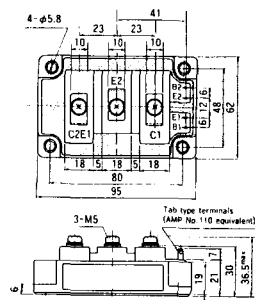
M-217



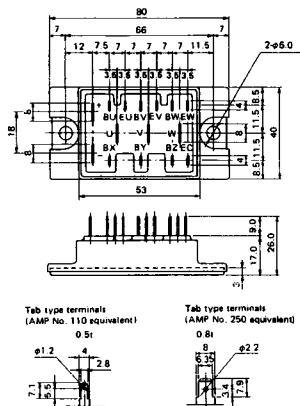
M-218



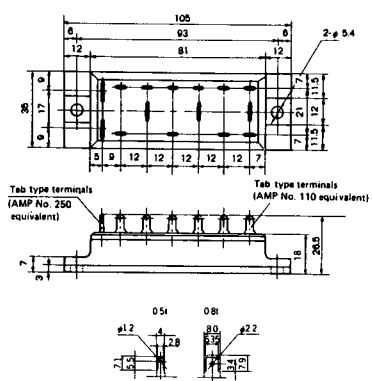
M-219



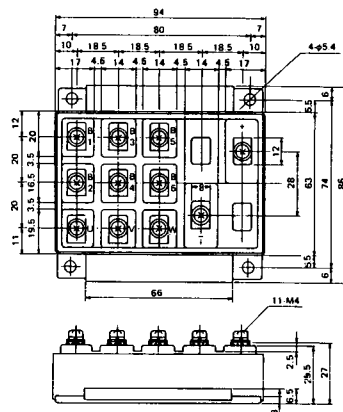
M-601



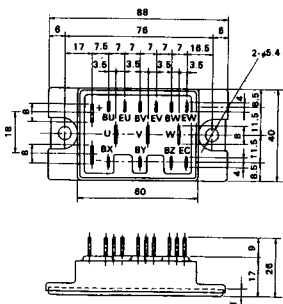
M-602



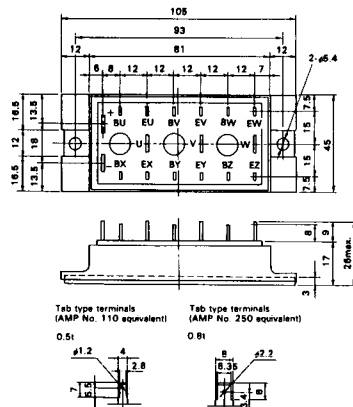
M-603



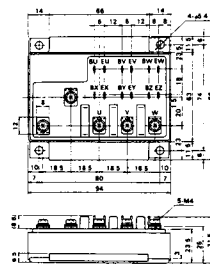
M-604



M-605



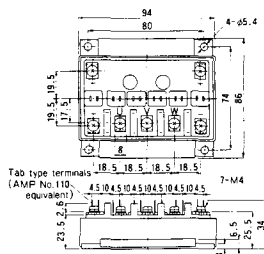
M-606



M-607



M-608



M-609



M-610

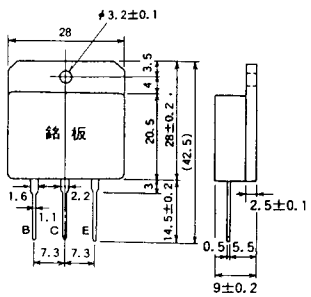


M-616

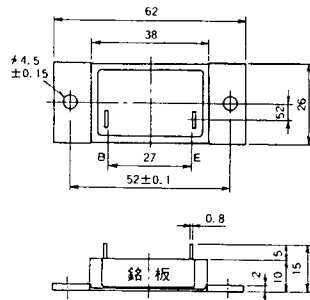




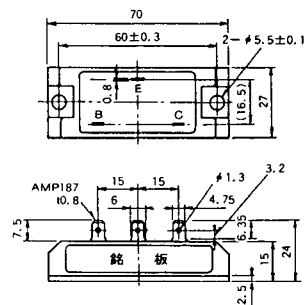
### M-1A1A



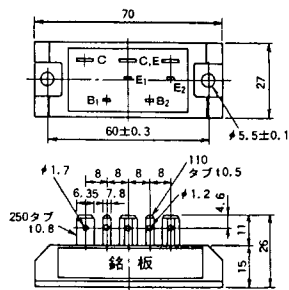
### M-2A1A



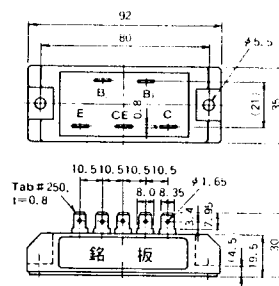
### M-2B1A



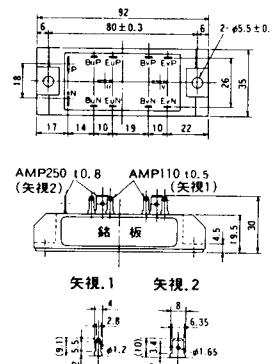
### M-2B2A



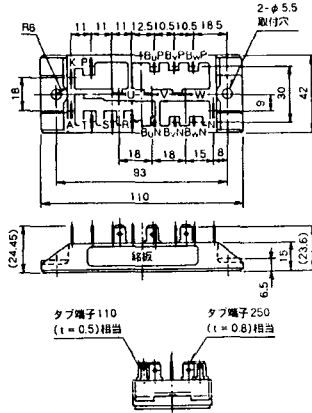
### M-2C2A



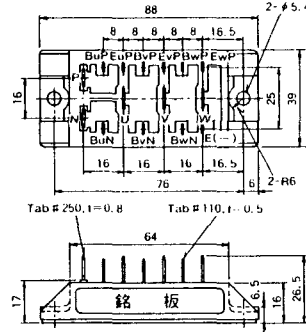
### M-2D4A



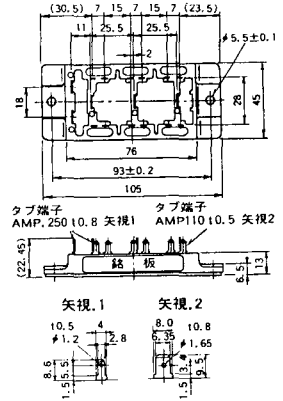
### M-2E6A



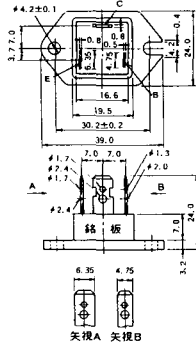
### M-2F6A



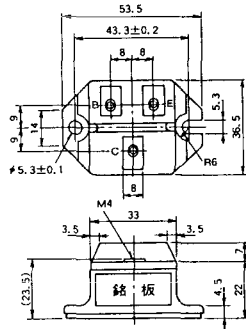
### M-2G6A



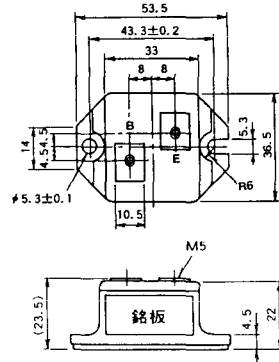
### M-3A1A



### M-3B1A



### M-3B1B



M-3C1A



M-3D6A



M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



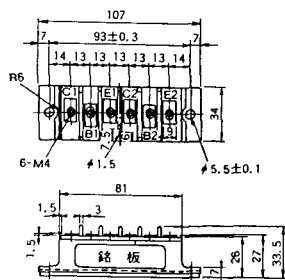
M-5A2A



M-5B2A



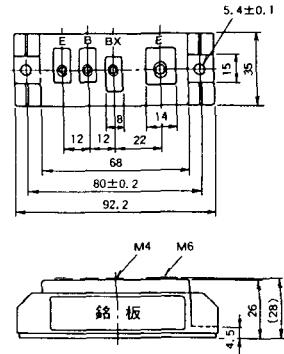
M-5C2A



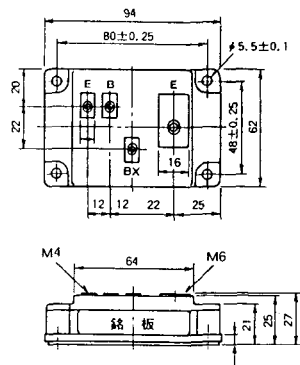
M-5D2A



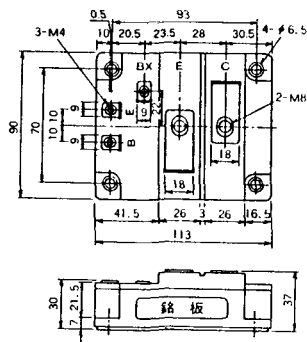
M-6A1A



M-7A1A



M-7B1A



M-8A1A



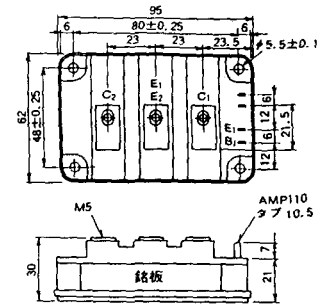
M-8A1B



M-8A2A



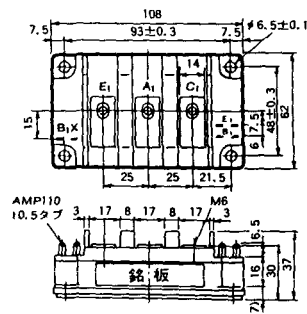
M-8A2B



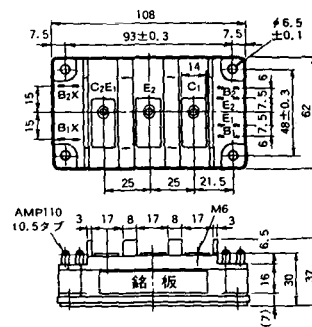
M-8B2A



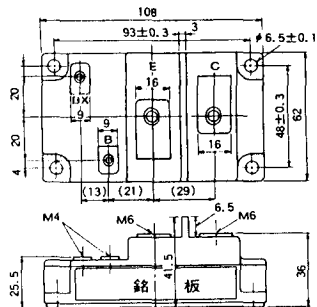
M-9A1A



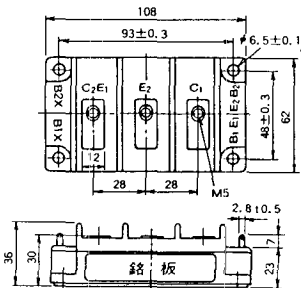
M-9A2A



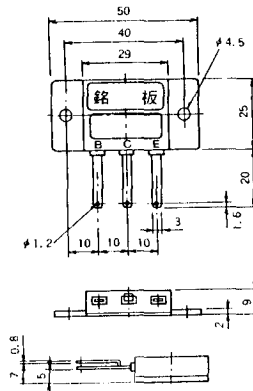
### M-9B1A



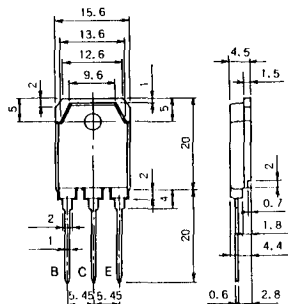
### M-9C2A



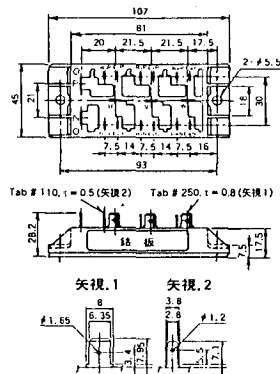
### M-1A1B



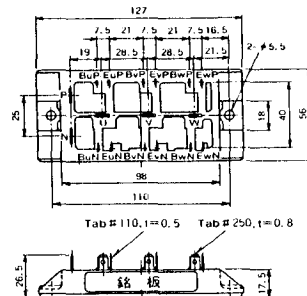
### M-1A1C



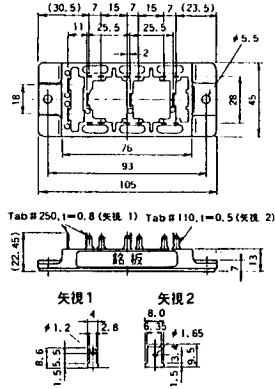
### M-2E6B



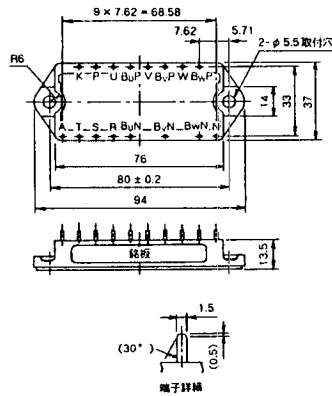
### M-2E6C



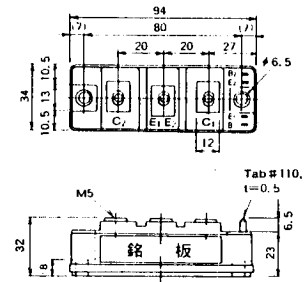
### M-2G6B



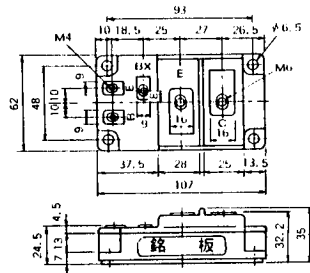
### M-3D6B



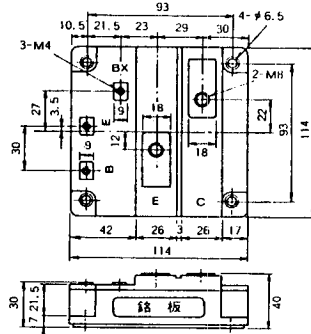
### M-4A2C



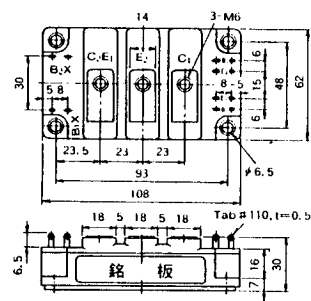
### M-7A1B



### M-7C1A



### M-8A2C





M-10A2A



M-10A2B



M-11A2A



M-12A6A



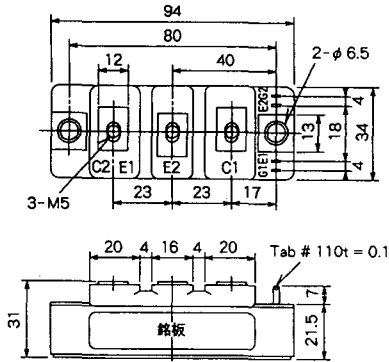
M-12B6A



M-12B6B



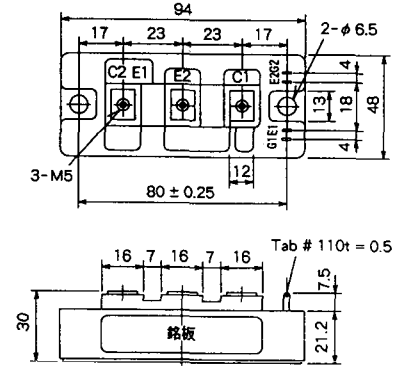
M-4A2D



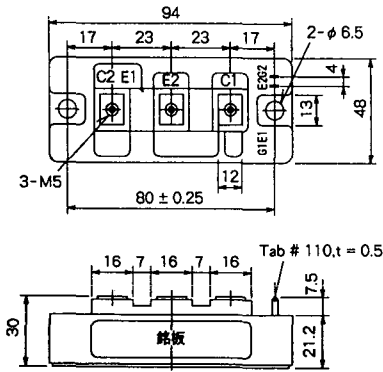
M-4A2E



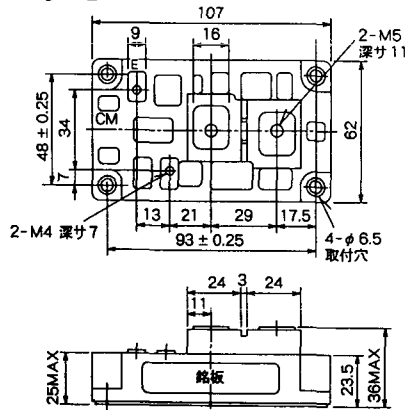
M-4C2A



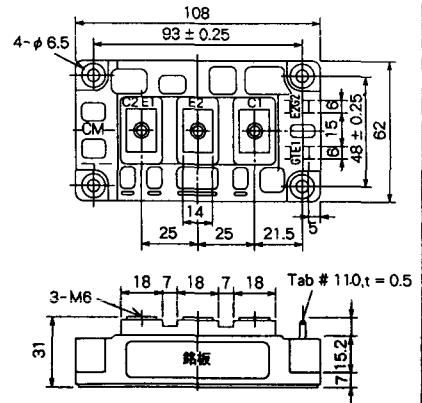
M-4C2B



M-9B1C



M-9D2A



M-9D2B



M-10A2C



H-101



Weight :480g

### H-201



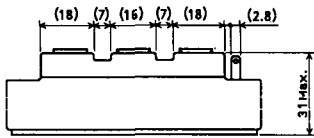
Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K

