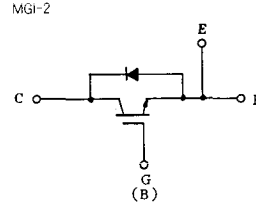
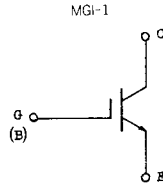


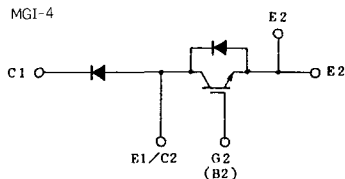
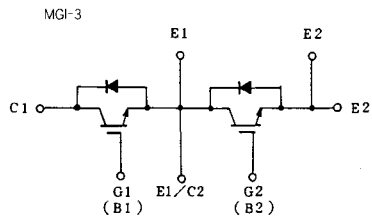
- エンハンスメント・タイプ
- 電極と金属ケース部が絶縁されている

■等価回路



注1.  $T_c = 25^\circ\text{C}$ . 注2. AC, 1分間。

型名	最大定格 ( $T_c = 25^\circ\text{C}$ )										電気的特性 ( $T_c = 25^\circ\text{C}$ )												
	$V_{CES}$	$V_{GES}$	$I_C$	$I_{CP}$	$I_F$	$I_{FM}$	$P_C$	$T_J$	$T_{stg}$	$V_{iso}$	$I_{CES}$		$I_{CES}$		$V_{CES}$		$V_{CE(OFF)}$		$V_{CE(sat)}$				
	(V)	(V)	(A)	(1ms)	(A)	(1ms)	(W)	( $^\circ\text{C}$ )	( $^\circ\text{C}$ )	(V)	最大 (mA)	$V_{CE}$	最大 (V)	$V_{CE}$	最小 (V)	$I_C$	最小 (V)	最大 (V)	$I_C$	最大 (V)	$I_C$		
MG15H1BS1	500	$\pm 20$	15	30			80	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	2	3	6	5	15	5.0	15	15
MG15N1BS1	1000	$\pm 20$	15	30			125	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	15	5.0	15	15
MG15N2YS1	1000	$\pm 20$	15	30	15	30	125	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	15	5.0	15	15
MG25H1BS1	500	$\pm 20$	25	50			125	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	25	5.0	15	25
MG25H2YS1	500	$\pm 20$	25	50	25	50	125	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	25	5.0	15	25
MG25N1BS1	1000	$\pm 20$	25	50			150	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	25	5.0	15	25
MG25N2YS1	1000	$\pm 20$	25	50	25	50	200	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	25	5.0	15	25
MG50H1BS1	500	$\pm 20$	50	100			150	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	50	5.0	15	50
MG50H1ZS1	500	$\pm 20$	50	100	50	100	300	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	50	5.0	15	50
MG50H2YS1	500	$\pm 20$	50	100	50	100	300	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	50	5.0	15	50
MG50N1BS1	1000	$\pm 20$	50	100			300	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	50	5.0	15	50
MG50N2YS1	1000	$\pm 20$	50	100	50	100	300	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	1000	1000	2	3	6	5	50	5.0	15	50
MG75H1BS1	500	$\pm 20$	75	150			200	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	75	5.0	15	75
MG75H2YS1	500	$\pm 20$	75	150	75	150	350	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	75	5.0	15	75
MG100H1BS1	500	$\pm 20$	100	200			300	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	100	5.0	15	100
MG100H2YS1	500	$\pm 20$	100	200	100	200	400	150	-40~125	2500	$\pm 500$	$\pm 20$	1.0	500	500	10	3	6	5	100	5.0	15	100
MG100N2YS1	1000	$\pm 20$	100	200	100	200	600	150	-40~125	2500	$\pm 500$	$\pm 20$	2.0	1000	1000	2	3	6	5	100	5.0	15	100
MG150H2YS1	500	$\pm 20$	150	300	150	300	700	150	-40~125	2500	$\pm 500$	$\pm 20$	2.0	500	500	10	3	6	5	150	5.0	15	150
MG200H2YS1	500	$\pm 20$	200	400	200	400	800	150	-40~125	2500	$\pm 500$	$\pm 20$	2.0	500	500	10	3	6	5	200	5.0	15	200
MG200N1US1	1000	$\pm 20$	200	400	200	400	1200	150	-40~125	2500	$\pm 500$	$\pm 20$	4.0	1000	1000	4	3	6	5	200	5.0	15	200



注3. スイッチング時間の\*印はtyp.値。

注4. F D : フリーホイール・ダイオード。

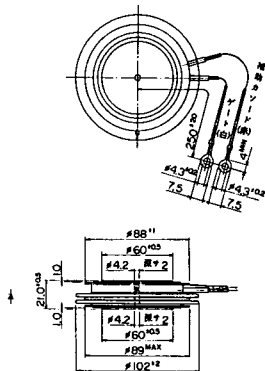
C <sub>1..3</sub> (pF)	f (MHz)	スイッチング時間 (μs)						エミッタ・コレクタ間ダイオード			熱抵抗		等価回路	外形図	記 事	型 名					
		V <sub>ce</sub> (V)	V <sub>ce</sub> (V)	t <sub>r</sub> 最大	t <sub>on</sub> 最大	t <sub>f</sub> 最大	t <sub>off</sub> 最大	R <sub>θ</sub> (Ω)	R <sub>L</sub> (Ω)	V <sub>ce</sub> (V)	R <sub>th(j-c)</sub> (°C/W)										
											V <sub>F</sub> (V)	I <sub>F</sub> (A)					t <sub>rr</sub> (μs)	I <sub>F</sub> (A)	V <sub>or</sub> (V)	di/dt (A/μs)	トランジスタ部 最大
1400	10	0	1.0	1.0	1.0	1.5	150	20	300				1.56		MGI-1	2-22B1A		MG15H1BS1			
2000	10	0	1.0	1.0	1.0	2.0	100	40	600				1.0		MGI-1	2-33D1A		MG15N1BS1			
2000	10	0	1.0	1.0	1.0	2.0	100	40	600	2.5	15	0.5	15	-10	100	1.0	1.8	MGI-3	2-94C3A	F D 付, 2個内蔵	MG15N2YS1
1500	10	0	1.0	1.0	1.0	1.5	100	12	300				1.0		MGI-1	2-33C1A		MG25H1BS1			
1500	10	0	1.0	1.0	1.0	1.5	100	12	300	2.5	25	0.5	25	-10	50	1.0	1.25	MGI-3	2-94C3A	F D 付, 2個内蔵	MG25H2YS1
3000	10	0	1.0	1.0	1.0	2.0	51	24	600				0.83		MGI-1	2-33D1A		MG25N1BS1			
3000	10	0	1.0	1.0	1.0	2.0	51	24	600	2.5	25	0.5	25	-10	100	0.625	1.0	MGI-3	2-94C3A	F D 付, 2個内蔵	MG25N2YS1
3000	10	0	1.0	1.0	1.0	1.5	51	6	300				0.83		MGI-1	2-33C1A		MG50H1BS1			
3000	10	0	1.0	1.0	1.0	1.5	51	6	300	2.5	50	0.5	50	-10	100	0.41	0.83	MGI-4	2-94C2A	F D 付	MG50H1ZS1
3000	10	0	1.0	1.0	1.0	1.5	51	6	300	2.5	50	0.5	50	-10	100	0.41	0.83	MGI-3	2-94C3A	F D 付, 2個内蔵	MG50H2YS1
7200	10	0	1.0	1.0	1.0	1.5	24	12	600				0.41		MGI-1	2-33D1A		MG50N1BS1			
7200	10	0	1.0	1.0	1.0	1.5	24	12	600	2.5	50	0.5	50	-10	100	0.41	1.0	MGI-3	2-94C3A	F D 付, 2個内蔵	MG50N2YS1
5600	10	0	1.5	1.5	1.0	1.5	33	4	300				0.625		MGI-1	2-33C1A		MG75H1BS1			
5600	10	0	1.5	1.5	1.0	1.5	33	4	300	2.5	75	0.5	75	-10	100	0.35	0.83	MGI-3	2-94C3A	F D 付, 2個内蔵	MG75H2YS1
7200	10	0	1.5	1.5	1.0	1.5	24	3	300				0.41		MGI-1	2-33C1A		MG100H1BS1			
7200	10	0	1.5	1.5	1.0	1.5	24	3	300	2.5	100	0.5	100	-10	100	0.31	0.83	MGI-3	2-94C3A	F D 付, 2個内蔵	MG100H2YS1
15000	10	0	1.0	1.0	1.0	2.0	12	6	600	3.0	100	0.5	100	-10	200	0.208	0.5	MGI-3	2-109B4A	F D 付, 2個内蔵	MG100N2YS1
11000	10	0	1.5	1.5	1.0	1.5	16	2	300	2.5	150	0.5	150	-10	200	0.178	0.415	MGI-3	2-96A4A	F D 付, 2個内蔵	MG150H2YS1
15000	10	0	1.5	1.5	1.0	1.5	12	1.5	300	2.5	200	0.5	200	-10	200	0.156	0.415	MGI-3	2-96A4A	F D 付, 2個内蔵	MG200H2YS1
30000	10	0	1.5	2.0	1.0	2.0	6.2	3	600	3.0	200	0.5	200	-10	300	0.104	0.25	MGI-2	2-109A4A	F D 付	MG200N1US1



FD-9



FD-10



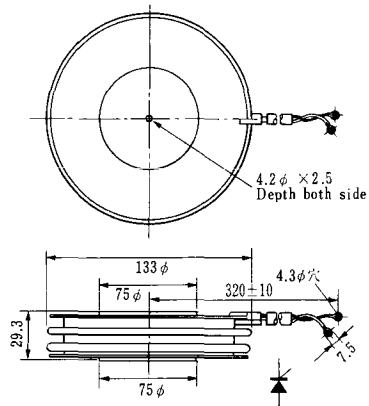
FD-12



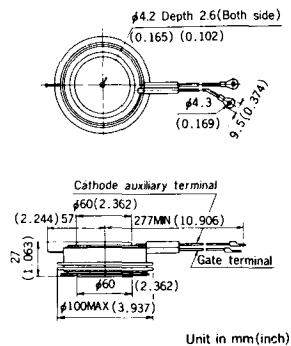


《寸法図単位：mm》

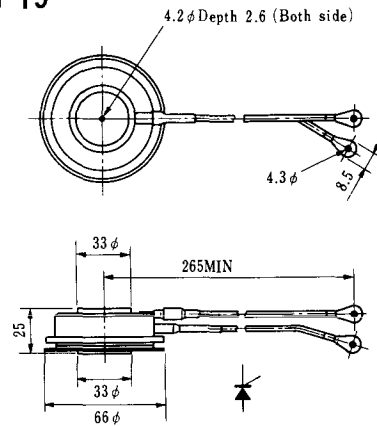
### H-17



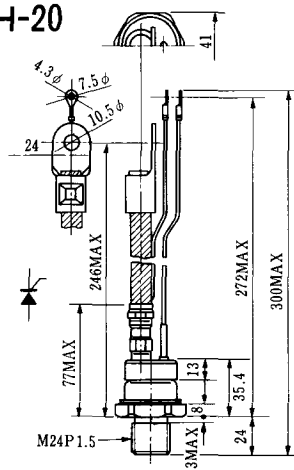
### H-18



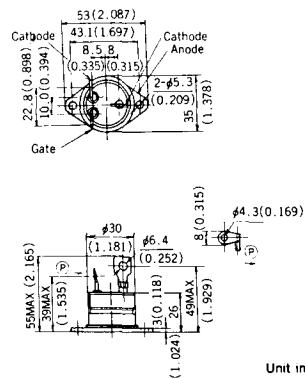
### H-19



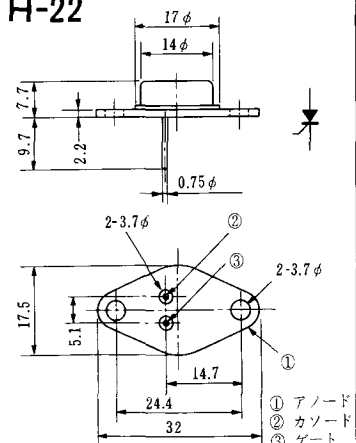
### H-20



### H-21



### H-22



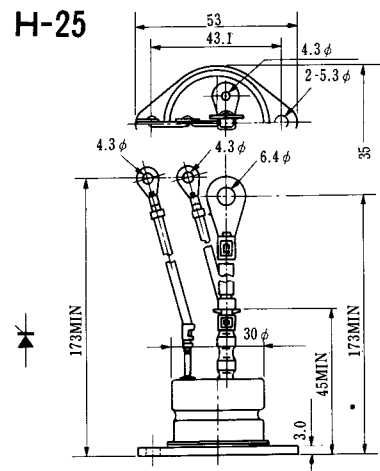
### H-23



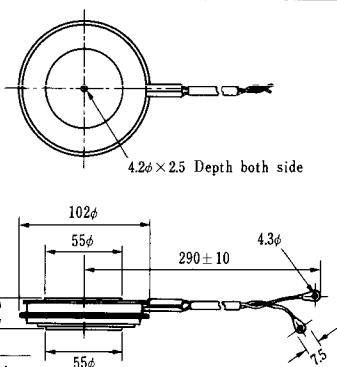
### H-24



### H-25

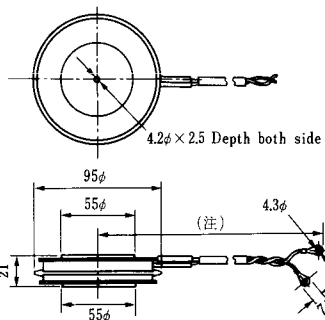


### H-26



Type	Direction of polarity
CA12	

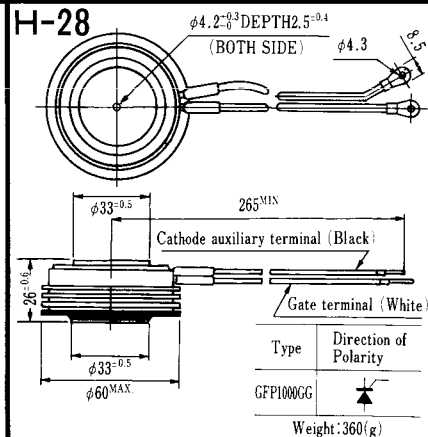
### H-27



Type	Direction of polarity
CF11V	

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

### H-28



Type	Direction of Polarity
GFP100GG	

Weight: 360(g)

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





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



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



### M-1



### M-2



### 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



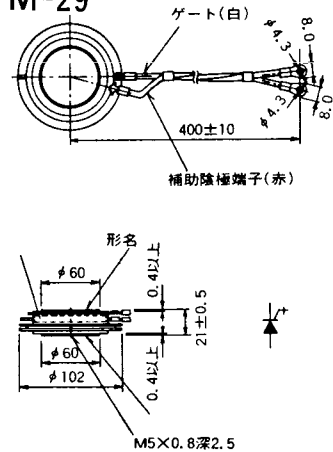
M-27



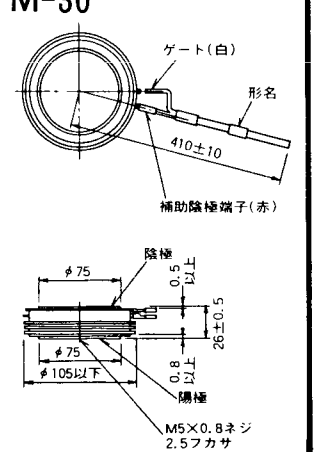
M-28



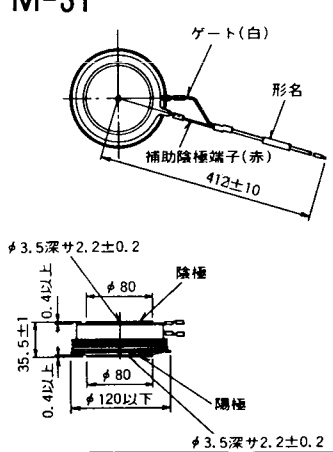
M-29



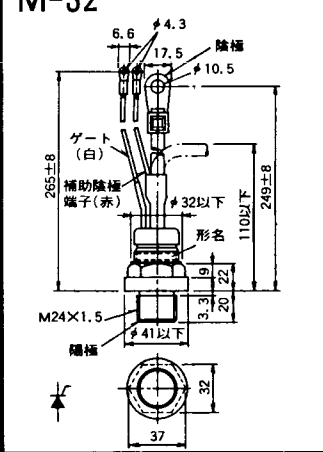
M-30



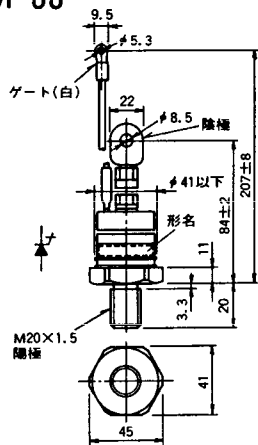
M-31



M-32



### M-33



### M-34



### MT-1



### MT-2



### MT-3



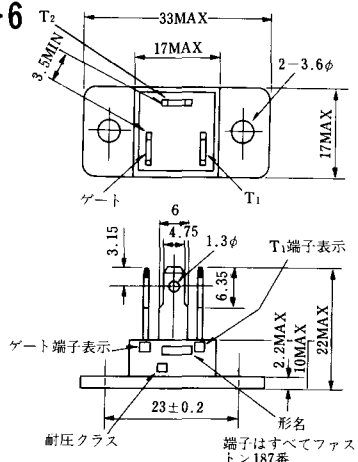
### MT-4



### MT-5



### MT-6



### MT-7

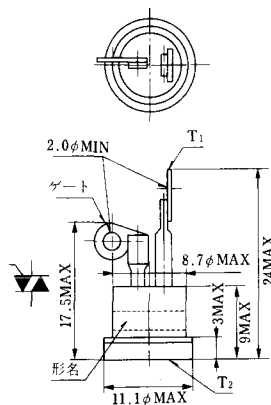


1. T<sub>1</sub>
2. T<sub>2</sub>
3. ゲート
4. T<sub>2</sub> (非絶縁形のみ、絶縁形は他の端子と絶縁されている)

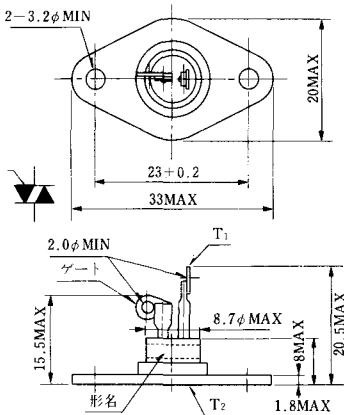
端子はすべてファス  
マン187番



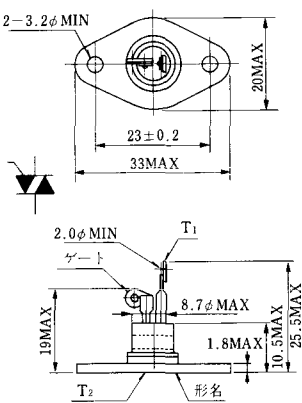
MT-8



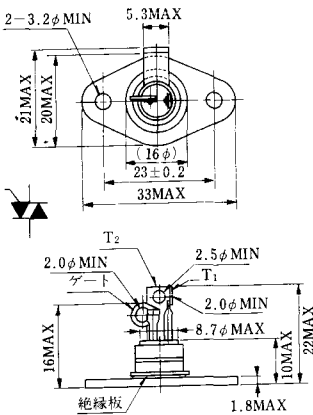
MT-9



MT-10



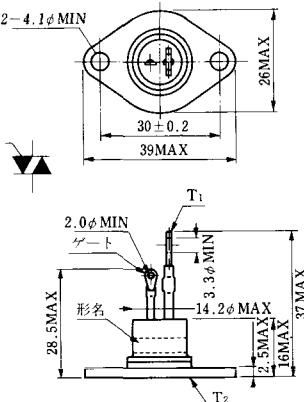
MT-11



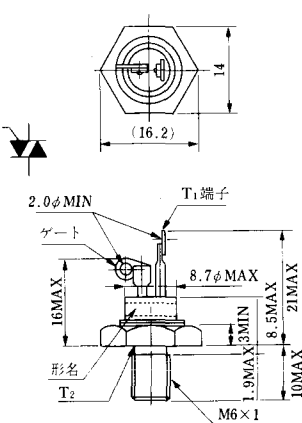
MT-12



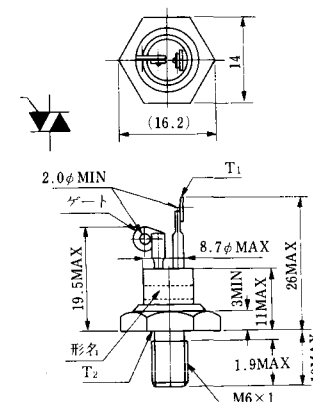
MT-13



MT-14



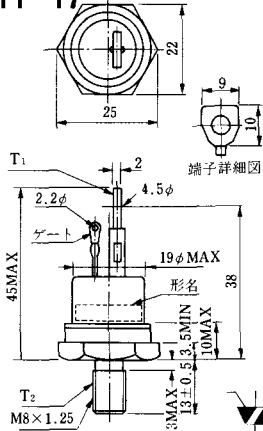
MT-15



MT-16

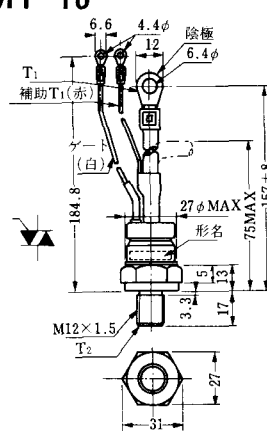


MT-17

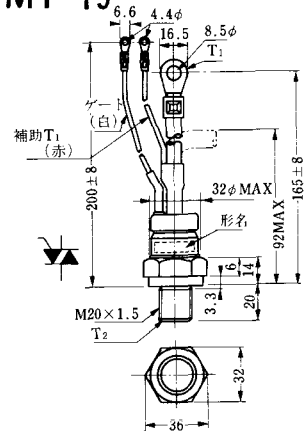


端子詳細図

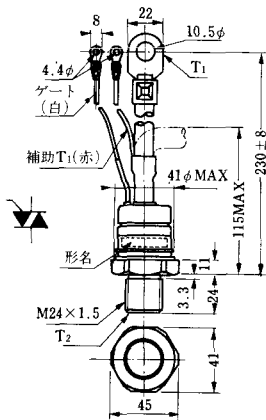
MT-18



MT-19



MT-20



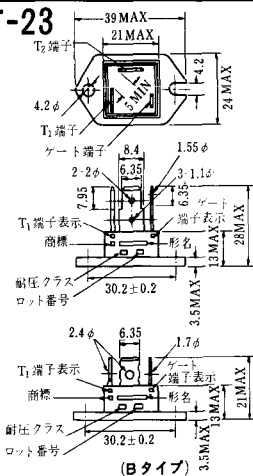
MT-21



MT-22



MT-23







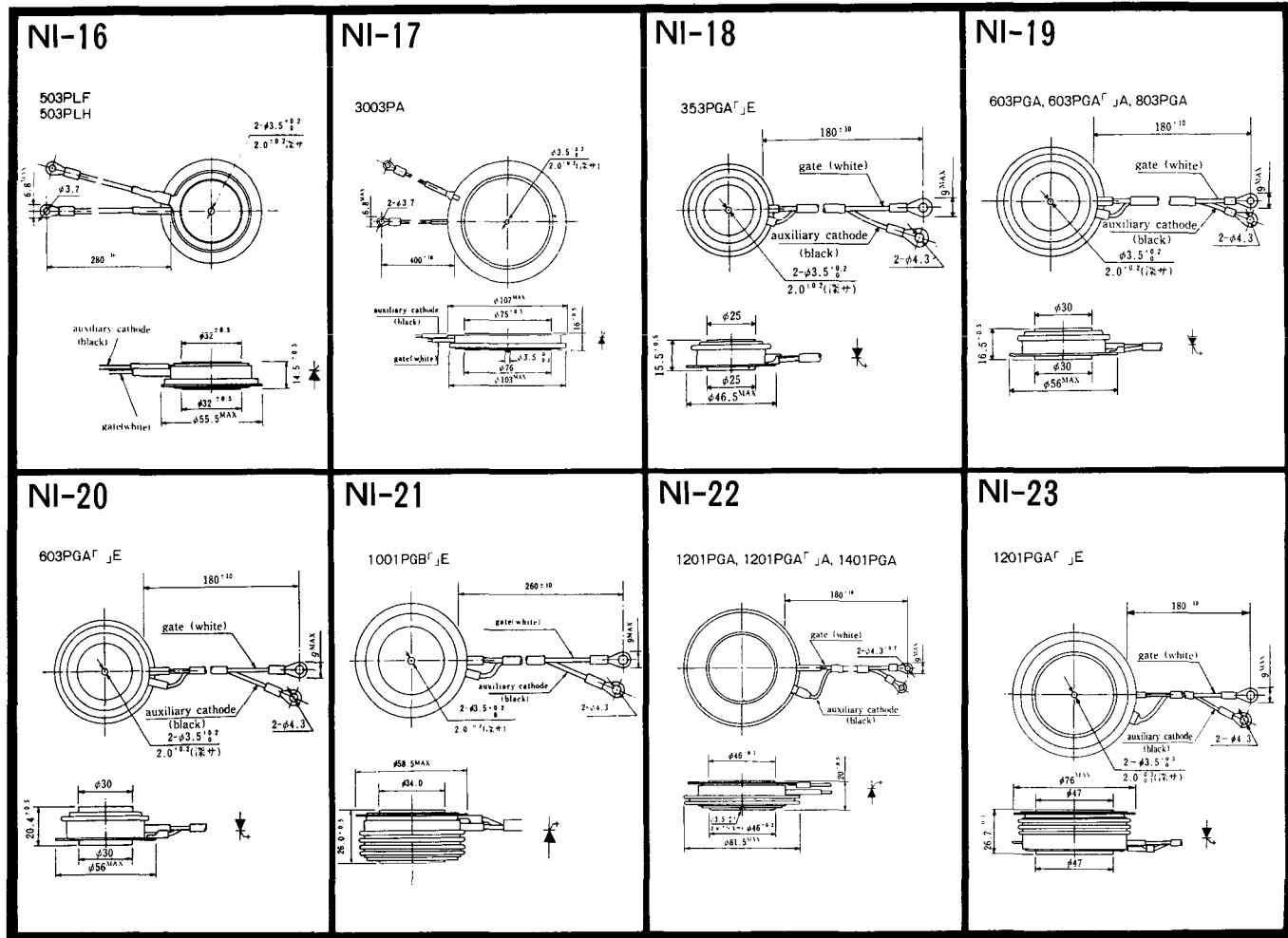














### NT-1



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

### NT-2



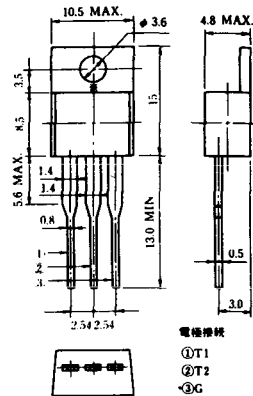
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-3



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

### NT-4



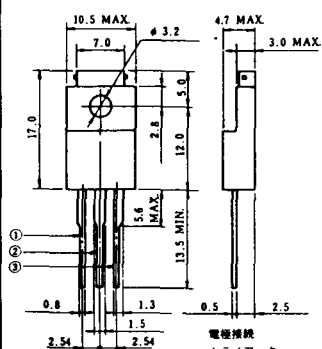
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G

### NT-5



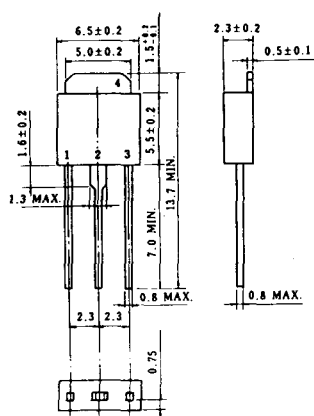
電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 2g

### NT-6

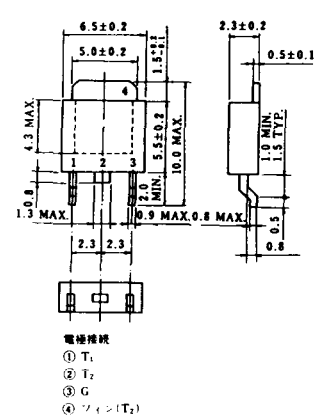


電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
φ 2k

### NT-7



### NT-8



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



SA-1



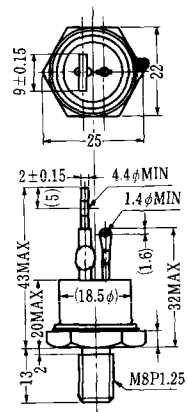
SA-2



SA-3



SA-4



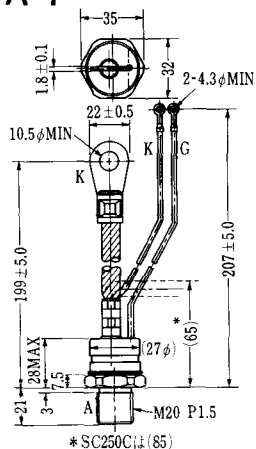
SA-5



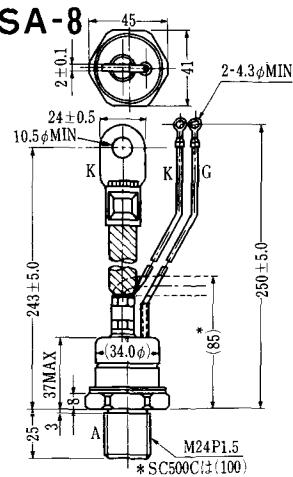
SA-6



SA-7



SA-8



\* SC250C:(1)(85)

\* SC500C:(1)(100)





SAT-10



SAT-11



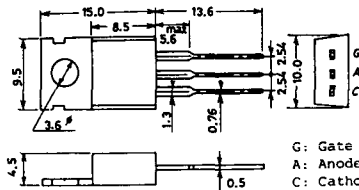


### SY-1 (1096A)



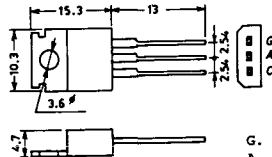
C: Cathode  
A: Anode  
G: Gate

### 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



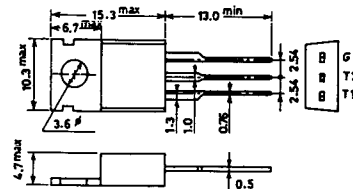
1142



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)**



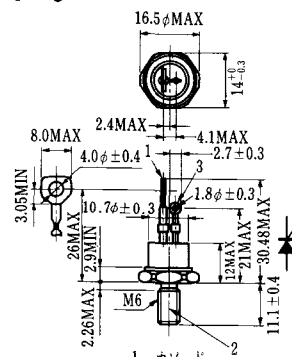
- 1 カソード
- 2 アノード
- 3 ゲート

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



- 1 カソード
- 2 アノード
- 3 ゲート

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

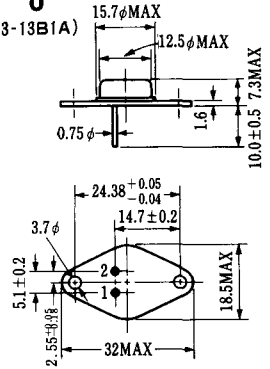


- 1 カソード
- 2 アノード
- 3 ゲート

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



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



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



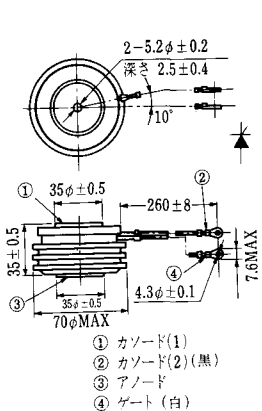
**T-20 (13-52C1A)**



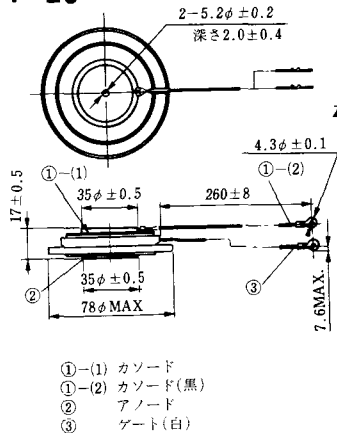
**T-21 (13-60A1A)**



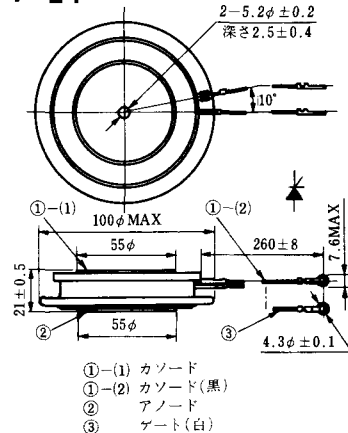
**T-22 (13-70C1A)**



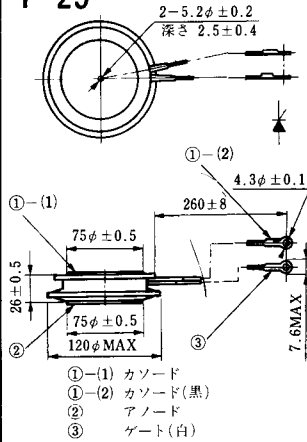
**T-23 (13-78A1A)**



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



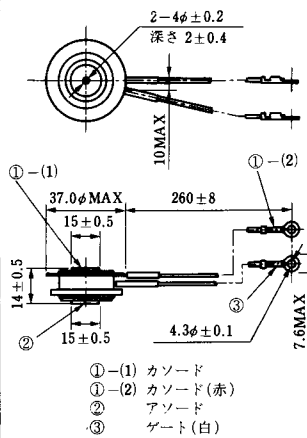
**T-25 (13-120A2A)**



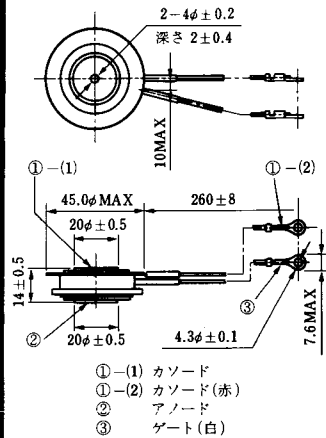
**T-26 (13-150A1A)**



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



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



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



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



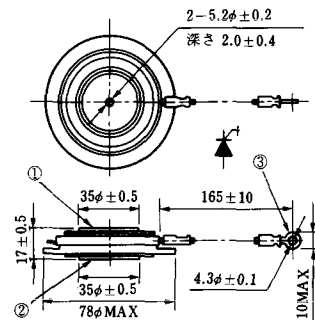
**T-31 (13-100E1A)**



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

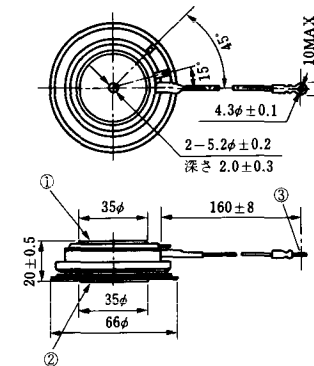


**T-33** (13-78B1A)



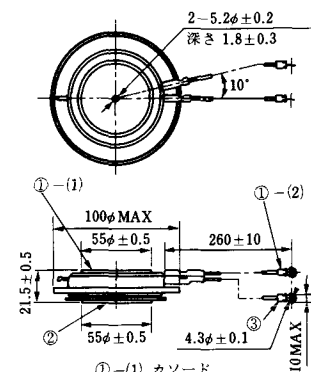
- ① カソード
- ② アノード
- ③ ゲート

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



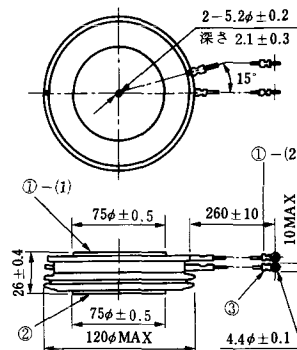
- ① カソード
- ② アノード
- ③ ゲート

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



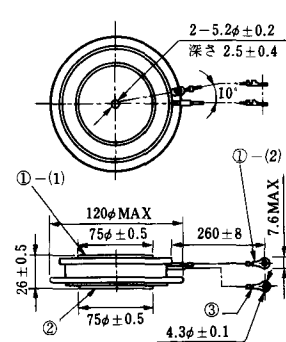
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



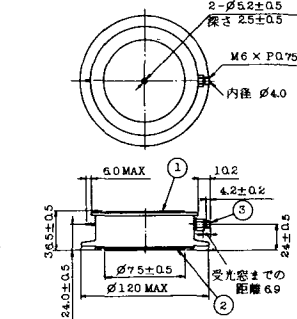
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



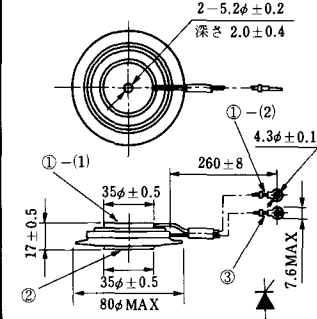
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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



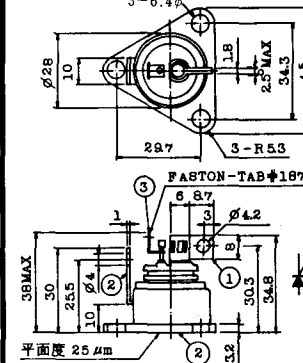
- ① カソード
- ② アノード
- ③ ゲート

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



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

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



- 1. カソード
- 2. アノード
- 3. ゲート

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



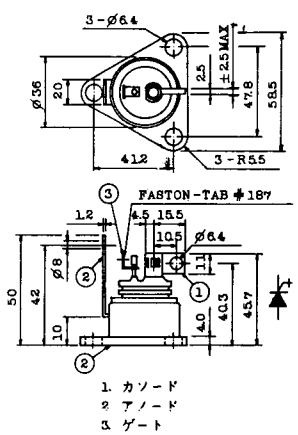
### T-42 (13-45F1A)



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



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



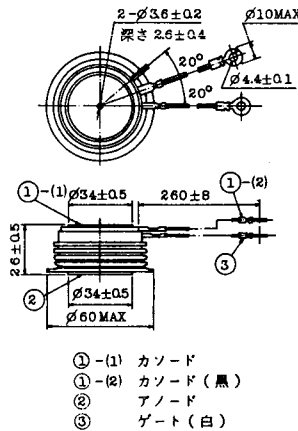
### T-45 (13-51B1A)



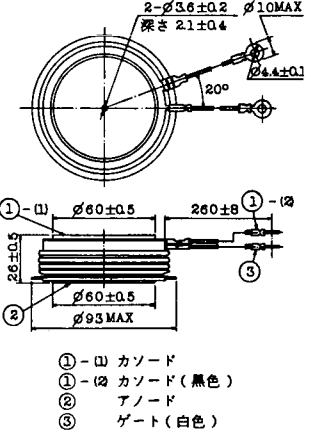
### T-46 (13-36B1A)



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



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



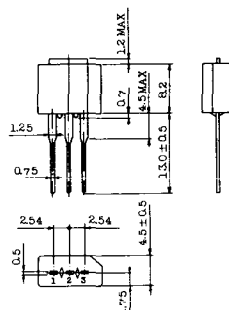


T-49 (13-75A1A)



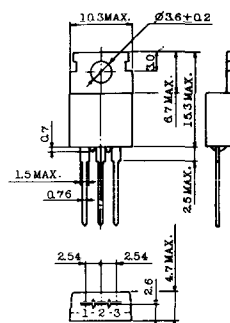
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-50 (13-10A3A)



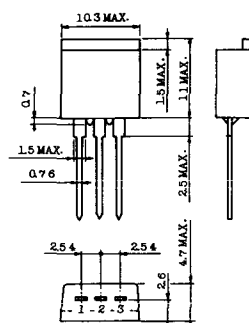
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



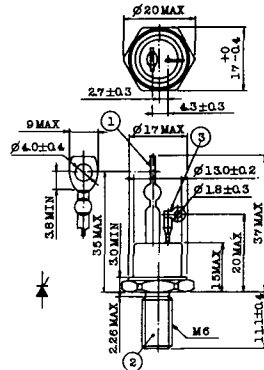
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



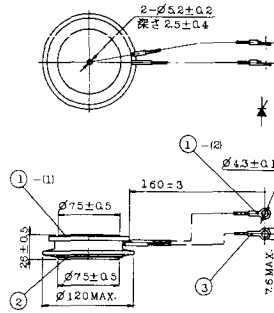
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



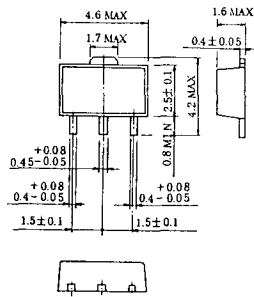
- 1-1) カソード
- 1-12) カソード (黒)
- 2) アノード
- 3) ゲート (白)

T-60



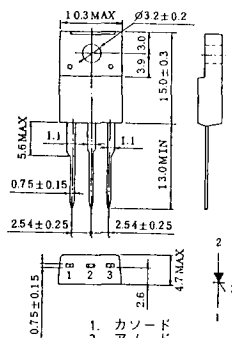
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



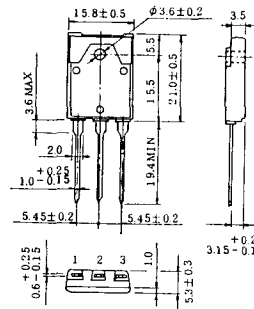
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



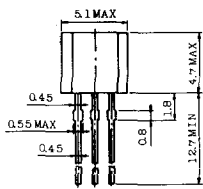
1. カソード
2. アノード
3. ゲート

TT-1



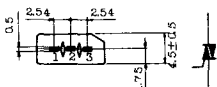
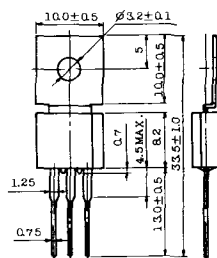
- 1 ゲート
- 2 T<sub>2</sub>
- 3 T<sub>1</sub>

TT-2



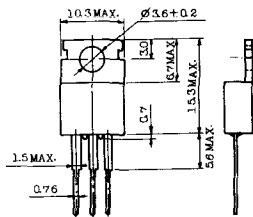
- 1 T<sub>1</sub>
- 2 ゲート
- 3 T<sub>2</sub>

TT-3



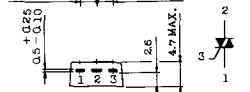
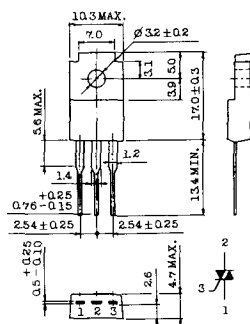
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-4



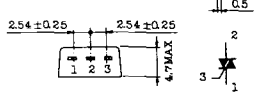
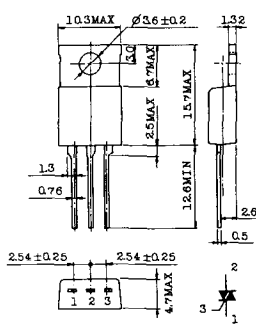
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-5



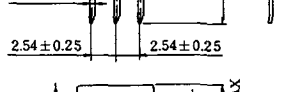
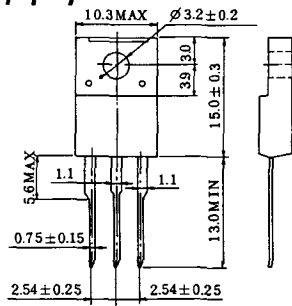
- 1 T<sub>1</sub>
- 2 T<sub>2</sub>
- 3 ゲート

TT-6



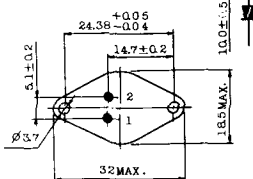
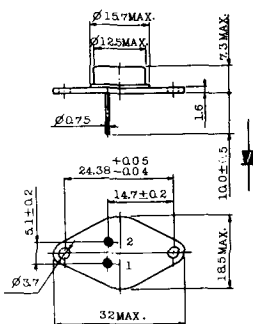
- 1 T<sub>1</sub>
- 2 T<sub>2</sub> (放熱板)
- 3 ゲート

TT-7



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

TT-8

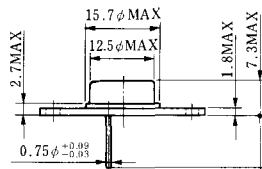


- 1 ゲート
- 2 T<sub>1</sub>
- T<sub>2</sub> (ケース)





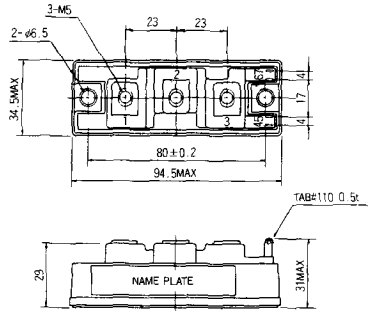
# TS-8



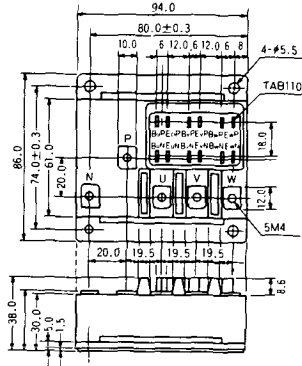
- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)



S-94B2A



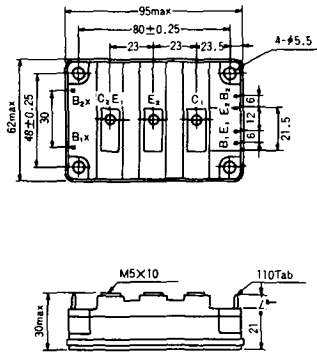
S-94D1A



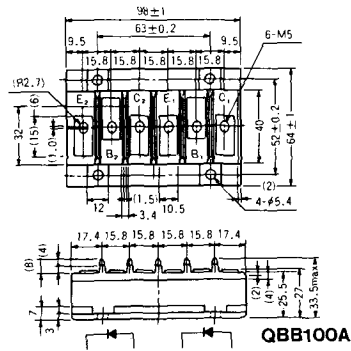
S-95A1A



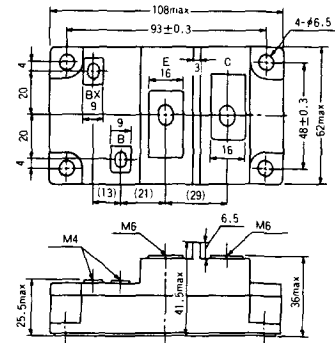
S-95B1A



S-98B1B



S-108A2A

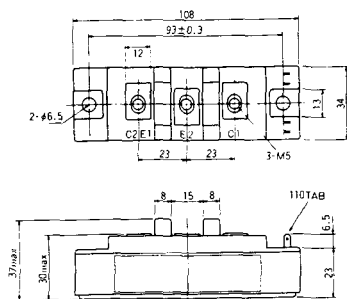




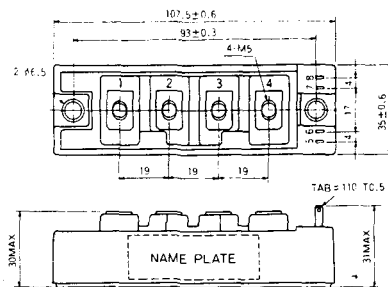
S-108B1A



S-108B1B



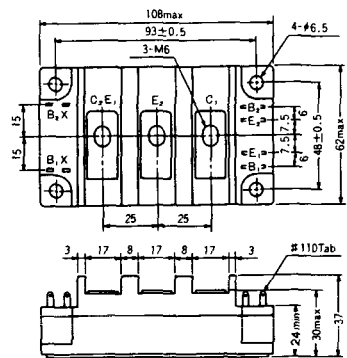
S-108B1C



S-108B2A



S-108B2B





2-48A3A



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



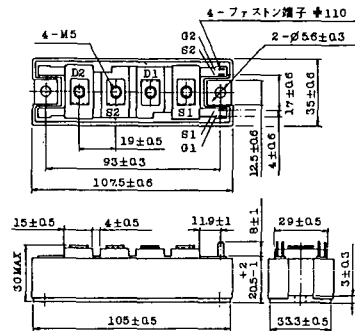
### 2-98C2A



### 2-108A2A



### 2-108B1A



### 2-109A3A



### 2-109A4A



### 2-109B3A

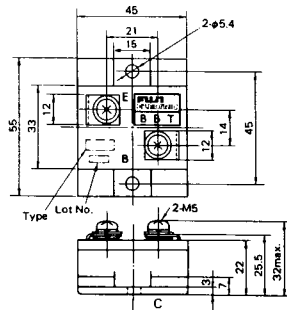


### 2-109B4A



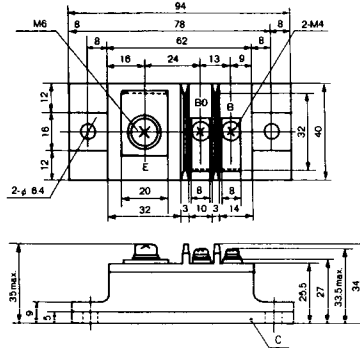
### BBT-II

BBTII  
1D200A-020



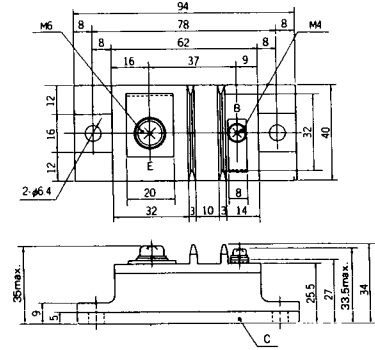
### BBT-III

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



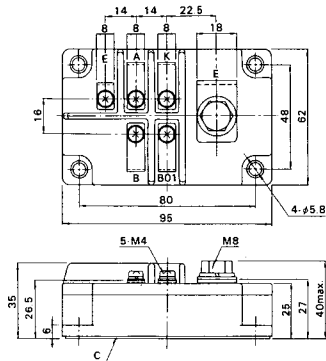
### BBT-III

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



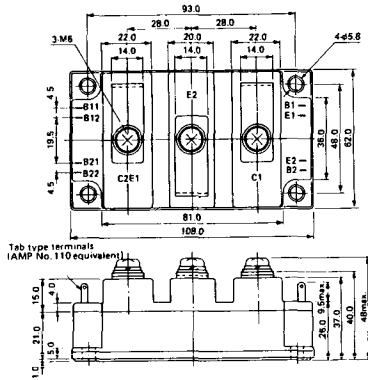
M-205



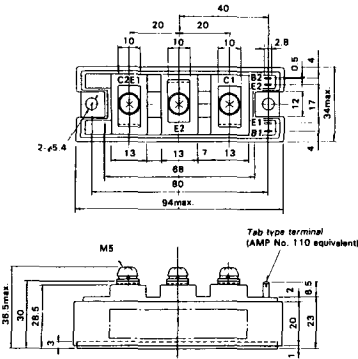
M-206



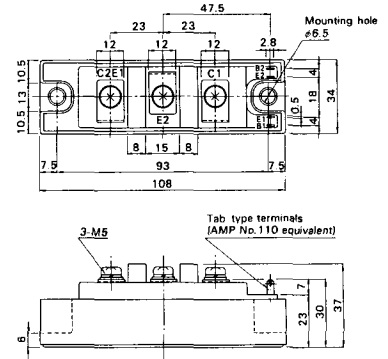
M-207



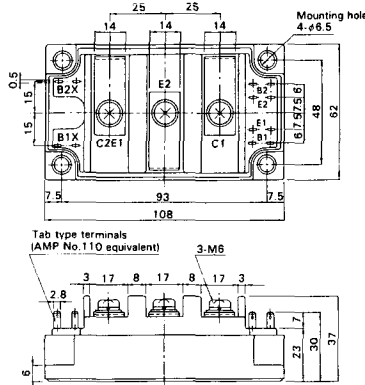
M-208



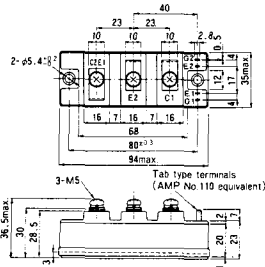
M-209



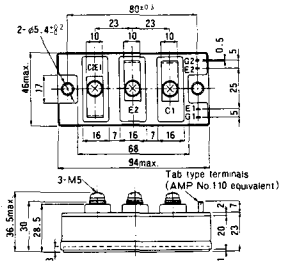
M-210



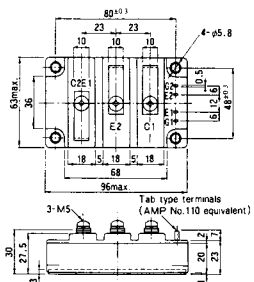
M-211



M-212



M-213

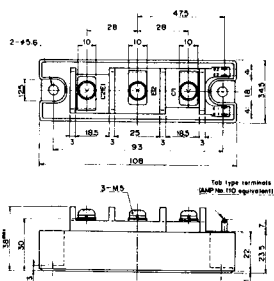


M-214

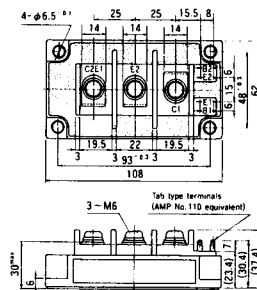
M-215



M-216



M-217



M-218



M-219













M-3C1A



M-3D6A



M-3E6A



M-4A1A



M-4A2A



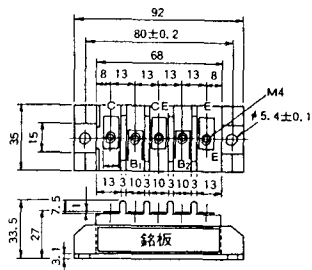
M-4A1B



M-4A2B



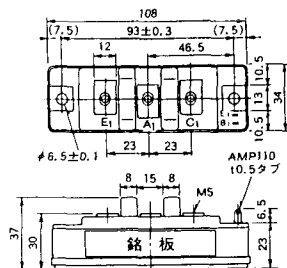
M-4B2A



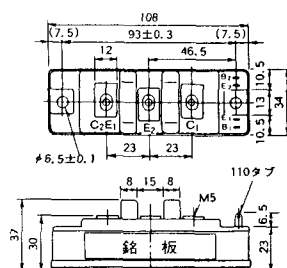
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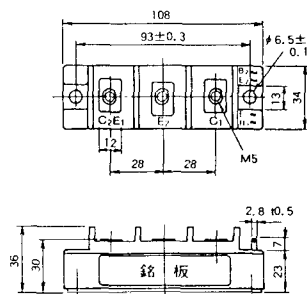
M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



M-7B1A



M-8A1A



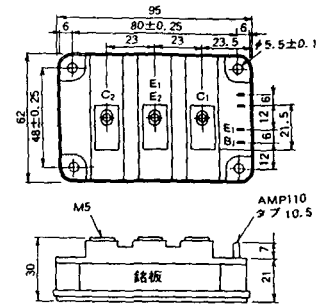
M-8A1B



M-8A2A



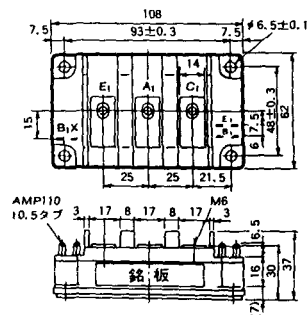
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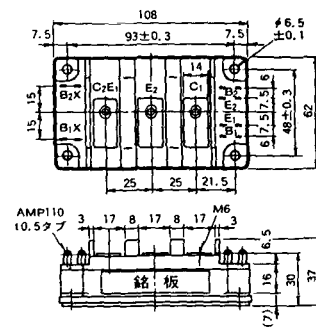
M-8B2A



M-9A1A



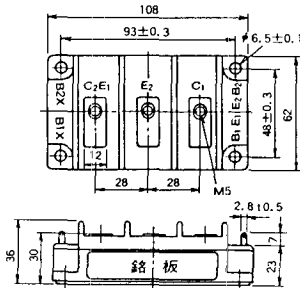
M-9A2A



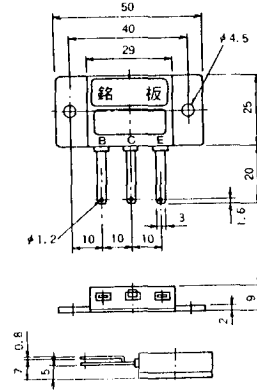
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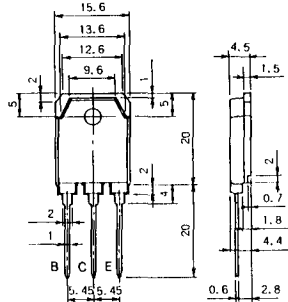
M-9C2A



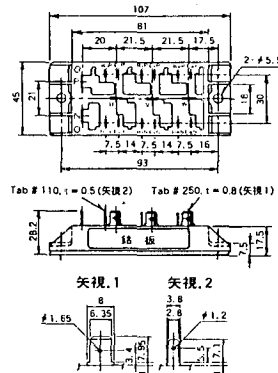
M-1A1B



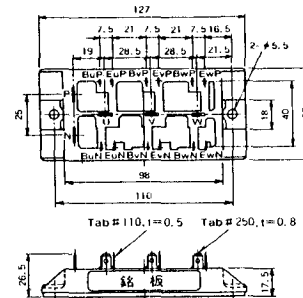
M-1A1C



M-2E6B



M-2E6C



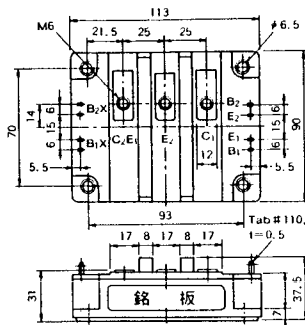




M-10A2A



M-10A2B



M-11A2A



M-12A6A



M-12B6A



M-12B6B





M-9D2B



M-10A2C



H-101



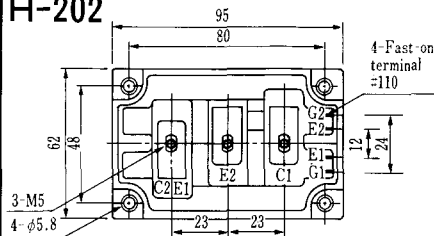
Weight :480g

### H-201



Weight: 200g

### H-202



Weight: 360g

### LF-J



### LF-K



