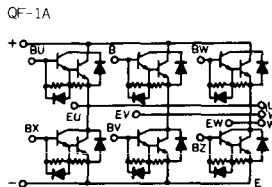


トランジスタ・モジュール (NPN, ダーリントン接続, 6個内蔵)

- ダーリントン・トランジスタ6個内蔵 (3相ブリッジ接続)
- フリーホイール・ダイオード付
- 絶縁形
- 直流電流増幅率は100以上 (定格電流にて)

■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									
	V_{CBO}	$V_{CEX(SUS)}$	V_{EBO}	I_c	I_{CP}	I_B	I_F	I_{FW}	P_c	T_c	T_{vff}	V_{Ics}	I_{CBO}		I_{EBO}		$V_{CEO(SUS)}$		h_{FE}		
	(V)	$V_{CEX \#}$	(V)	(A)	(ms)	(A)	(A)	(A)	(W)	($^\circ\text{C}$)	($^\circ\text{C}$)	(V)	(mA)	V_{CE}	(mA)	V_{EB}	(V)	I_c	最小	V_{CE}	I_c
		(V)							(注1)			(注2)	最大	最大	最大	最大	最小	最小	最小	最小	最小
QF15AA40	400	400	10	15	30	1.0	15		100	150	-40~125	2500	1.0	400	100	10	300	1.0	75/100	2/5	15
QF15AA60	600	600	10	15	30	1.0	15		100	150	-40~125	2500	1.0	600	100	10	450	1.0	75/100	2/5	15
QF20AA40	400	400	10	20	40	2.0	20		160	150	-40~125	2500	1.0	400	200	10	300	1.0	75/100	2/5	20
QF20AA60	600	600	10	20	40	2.0	20		160	150	-40~125	2500	1.0	600	200	10	450	1.0	75/100	2/5	20
QF30AA40	400	400	10	30	60	2.0	30		250	150	-40~125	2500	1.0	400	300	10	300	1.0	75/100	2/5	30
QF30AA60	600	600	10	30	60	2.0	30		250	150	-40~125	2500	1.0	600	300	10	450	1.0	75/100	2/5	30
QF50AA40	400	400	10	50	100	3.0	50		300	150	-40~125	2500	1.0	400	300	10	300	1.0	75/100	2/5	50
QF50AA60	600	600	10	50	100	3.0	50		300	150	-40~125	2500	1.0	600	300	10	450	1.0	75/100	2/5	50

FD-1



FD-2



FD-3



FD-4



FD-5



FD-6



FD-7



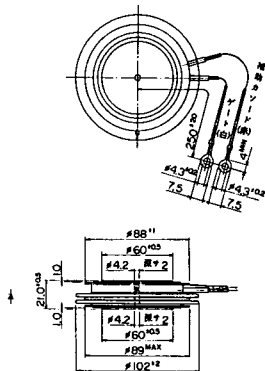
FD-8



FD-9



FD-10



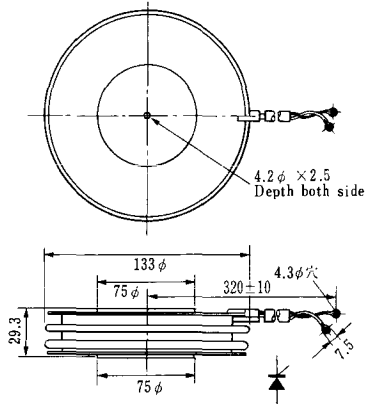
FD-11

FD-12





H-17

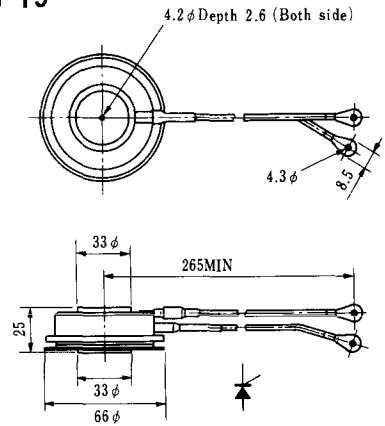


H-18

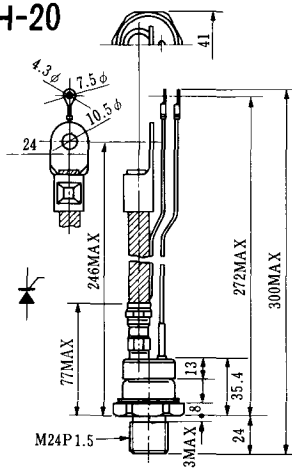


Unit in mm (inch)

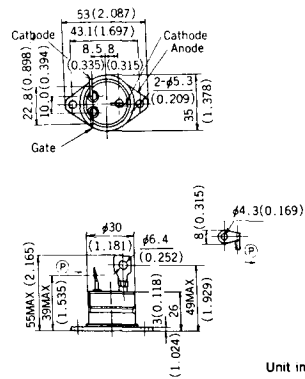
H-19



H-20

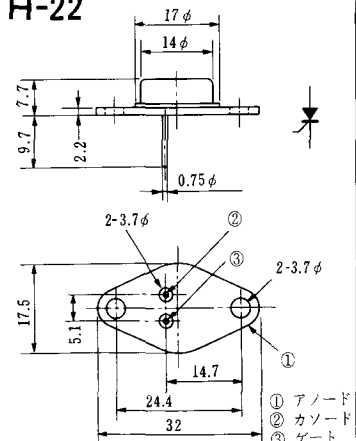


H-21



Unit in mm (inch)

H-22

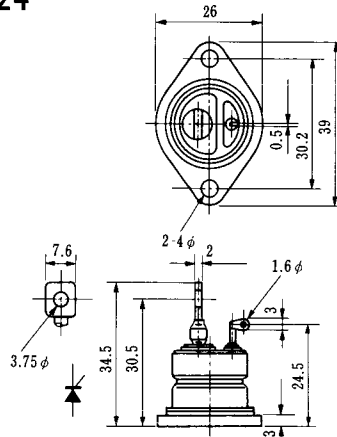


H-23

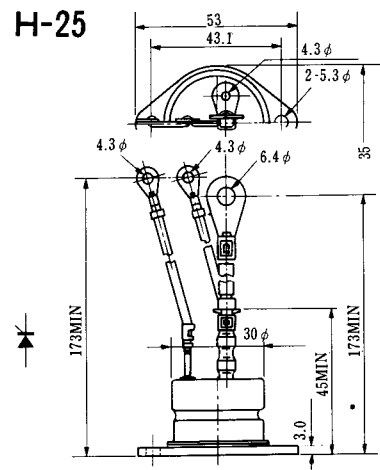


① アノード
② カソード
③ ゲート

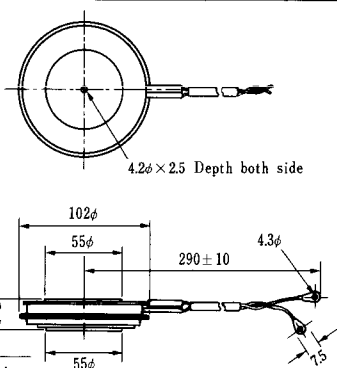
H-24



H-25



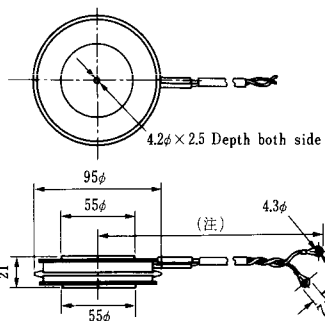
H-26



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

CA12	
------	--

H-27

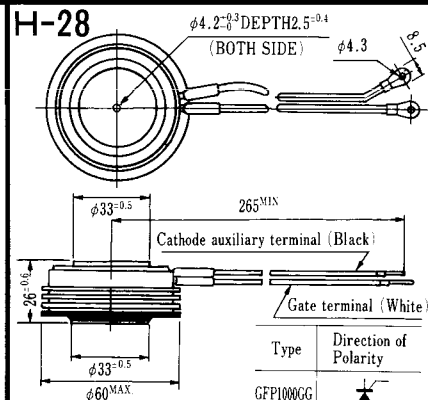


Type	Direction of polarity
------	-----------------------

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.

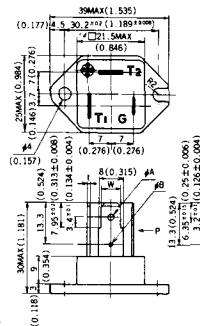


Note: The thickness is a dimension in press at the rated mounting force. Weight: 870(g)



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

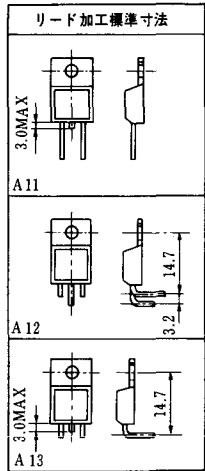
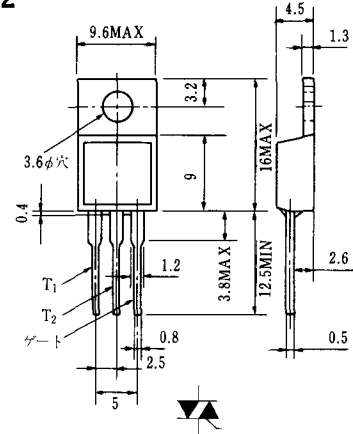
HT-1



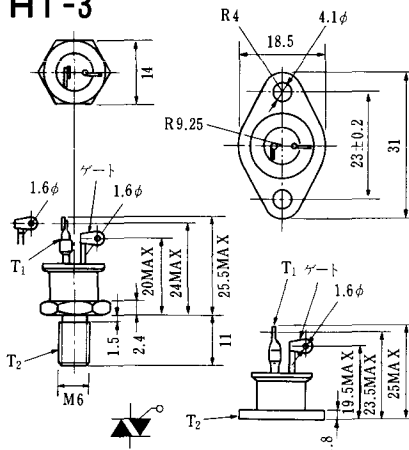
TERMINAL	t	W	φA	φB
T ₁	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 ^{+0.1} ₋₀ (0.079±0.004)	1.3 (0.051)
T ₂	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 ^{+0.1} ₋₀ (0.079±0.004)	1.3 (0.051)
G	0.5±0.025 (0.020±0.001)	4.75±0.1 (0.187±0.004)	1.55 ^{+0.1} ₋₀ (0.061±0.004)	1.3 (0.051)

Unit in mm (inch)

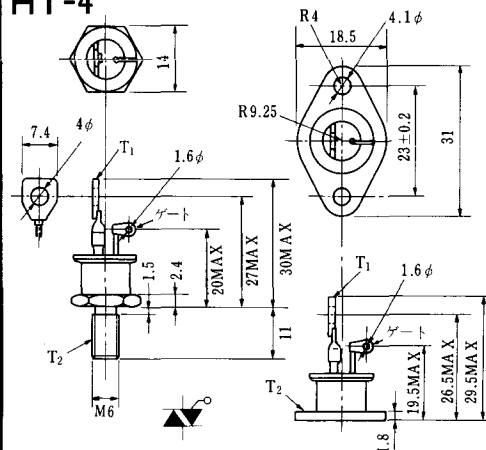
HT-2



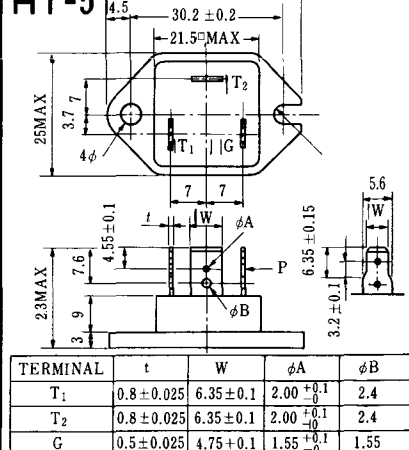
HT-3



HT-4



HT-5



TERMINAL	t	W	φA	φB
T ₁	0.8±0.025	6.35±0.1	2.00 ^{+0.1} ₋₀	2.4
T ₂	0.8±0.025	6.35±0.1	2.00 ^{+0.1} ₋₀	2.4
G	0.5±0.025	4.75±0.1	1.55 ^{+0.1} ₋₀	1.55

《寸法図単位：mm》

M-1



M-2



M-3



M-4



M-5



M-6



M-7



M-8



M-9



M-10



M-11



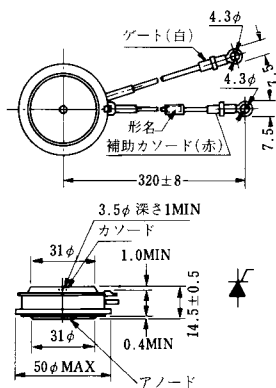
M-12



M-13



M-14



M-15



M-16





M-25



M-26



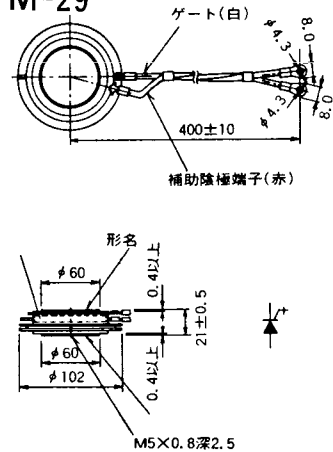
M-27



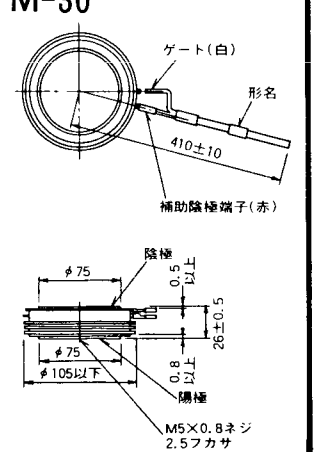
M-28



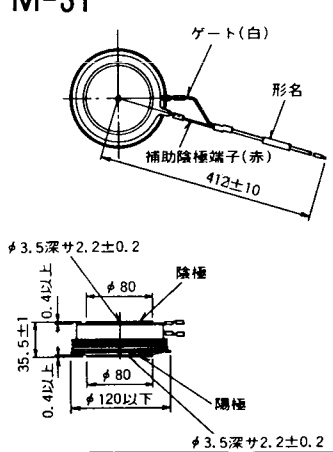
M-29



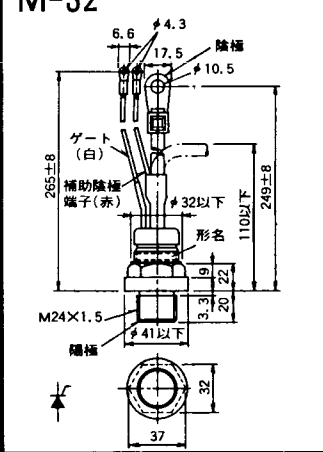
M-30



M-31



M-32



M-33



M-34



MT-1



MT-2



MT-3



MT-4



MT-5



MT-6



MT-7



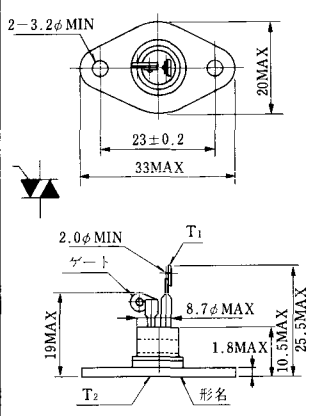
MT-8



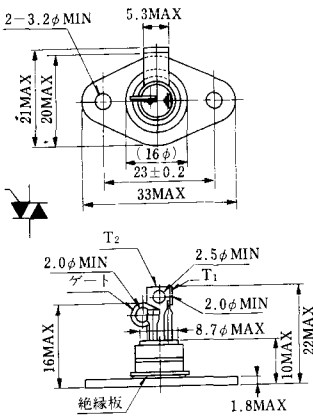
MT-9



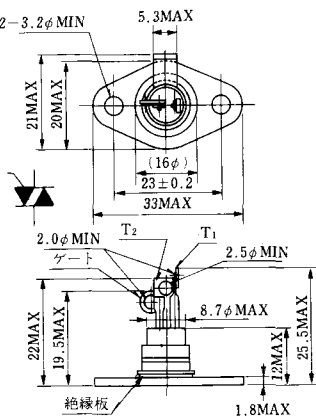
MT-10



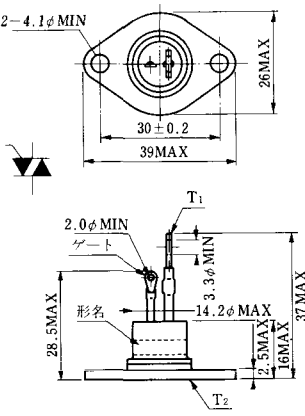
MT-11



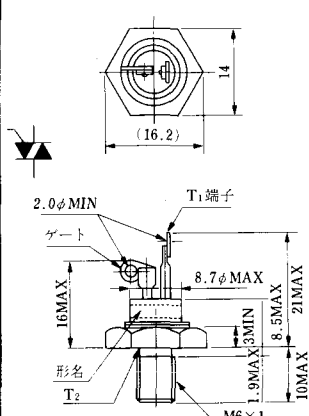
MT-12



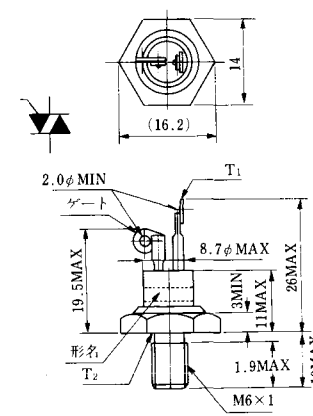
MT-13



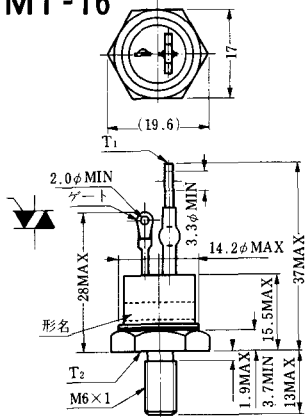
MT-14



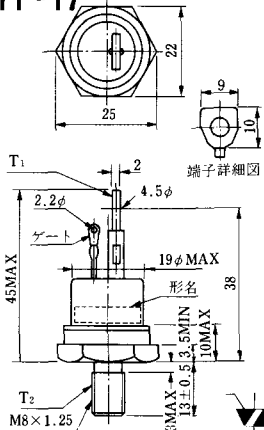
MT-15



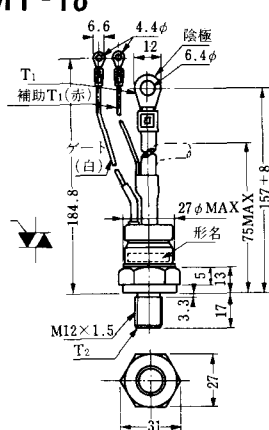
MT-16



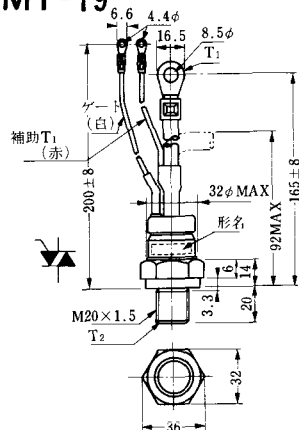
MT-17



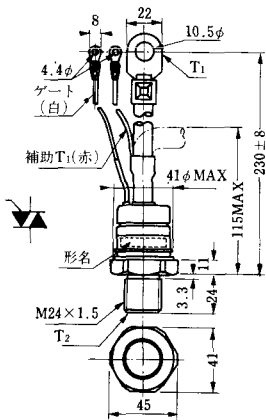
MT-18



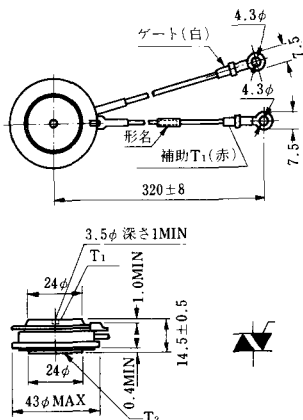
MT-19



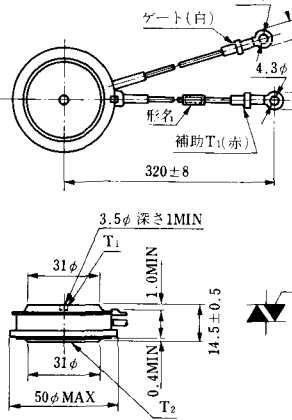
MT-20



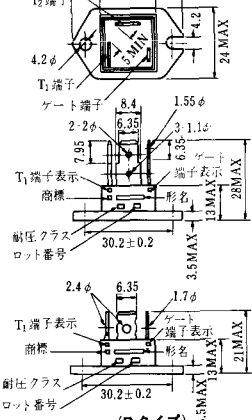
MT-21



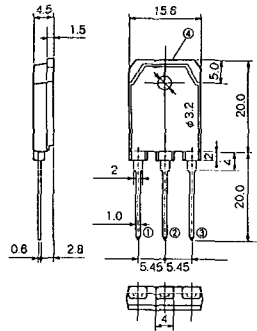
MT-22



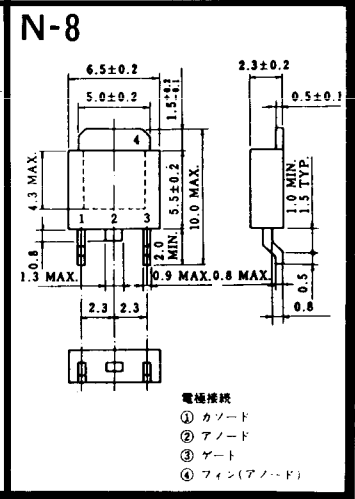
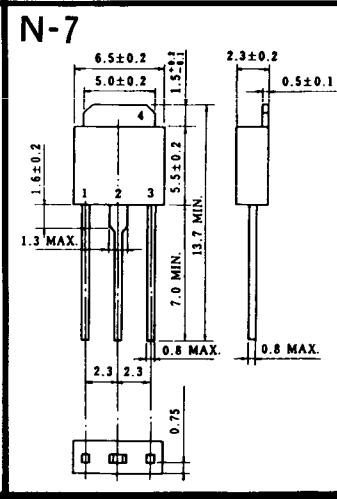
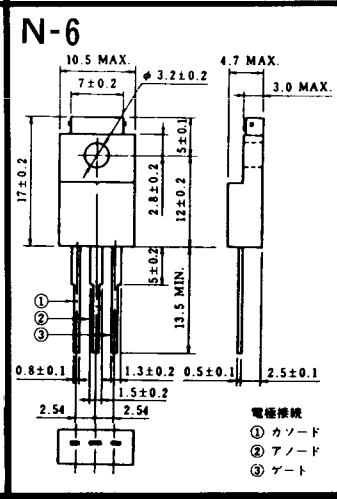
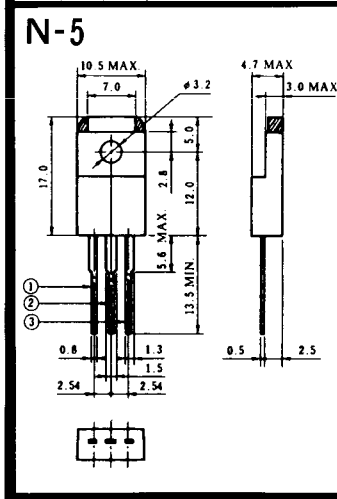
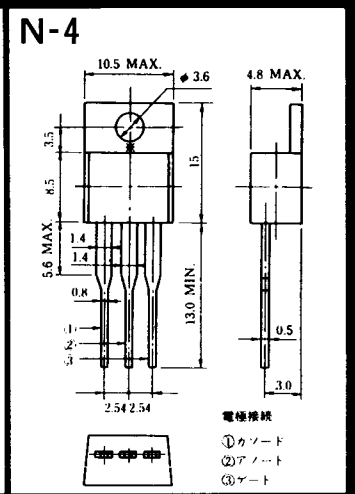
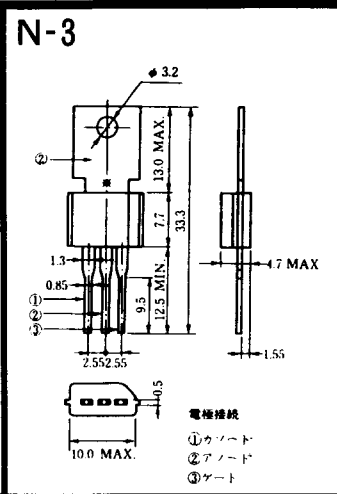
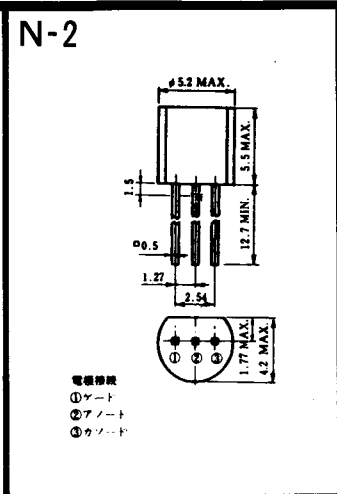
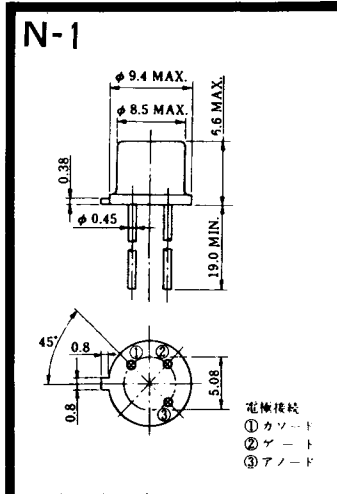
MT-23



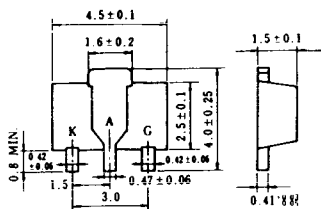
MT-24



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



N-9



電極接続

K : カソード

A : アノード

G : ゲート

NA-1

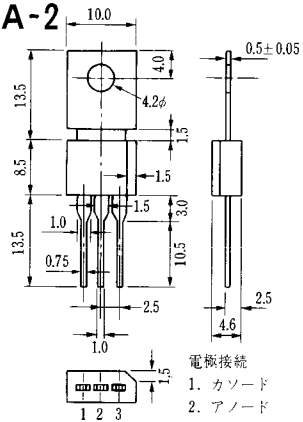


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

NA-2

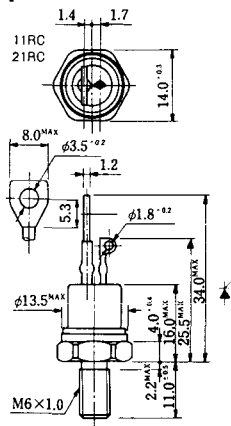


電極接続

1. カソード
2. アノード
3. ゲート

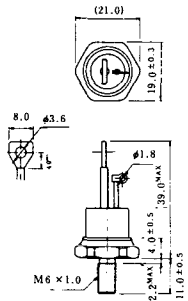
JEDEC: TO-202AA

NI-1



NI-2

29RD



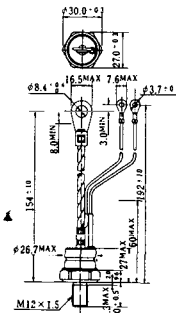
NI-3

39RC
59RC
39RF
59RF



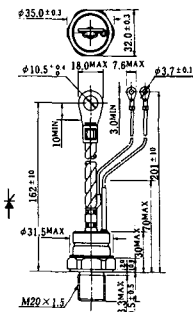
NI-4

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



NI-5

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



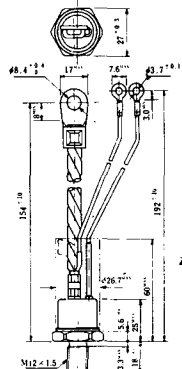
NI-6

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



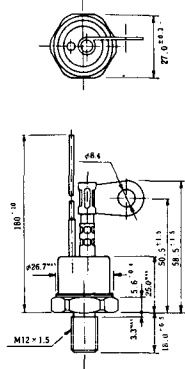
NI-7

89RW_{JL}
129RW_{JL}

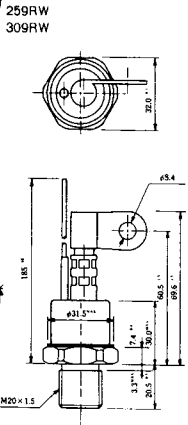


NI-8

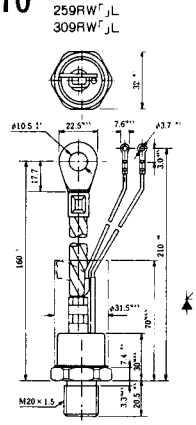
89RW
129RW



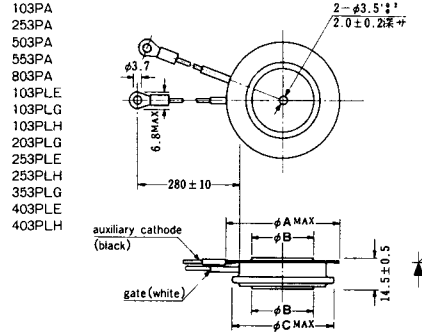
NI-9



NI-10

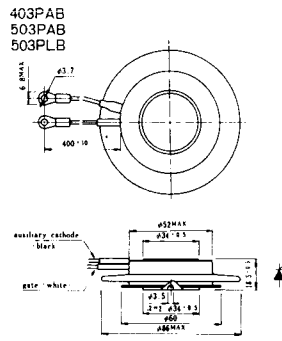


NI-11

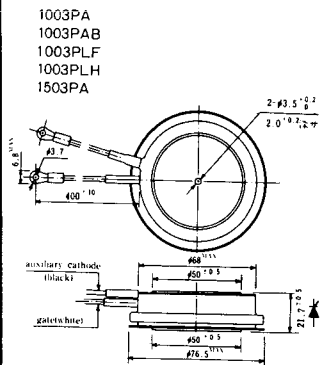


型名	103PA, 103PLE, 103PLG, 103PLH	253PA, 203PLG, 253PLE, 253PLH	503PA, 553PA, 353PLG, 403PLE, 403PLH	803PA
寸法 A	40	46	55.5	55.5
寸法 B	16	22	30	32
寸法 C	36	42	50.5	50.5

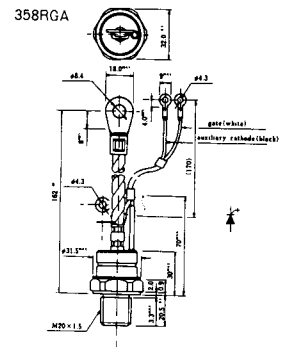
NI-12



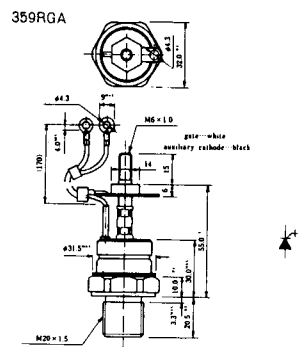
NI-13

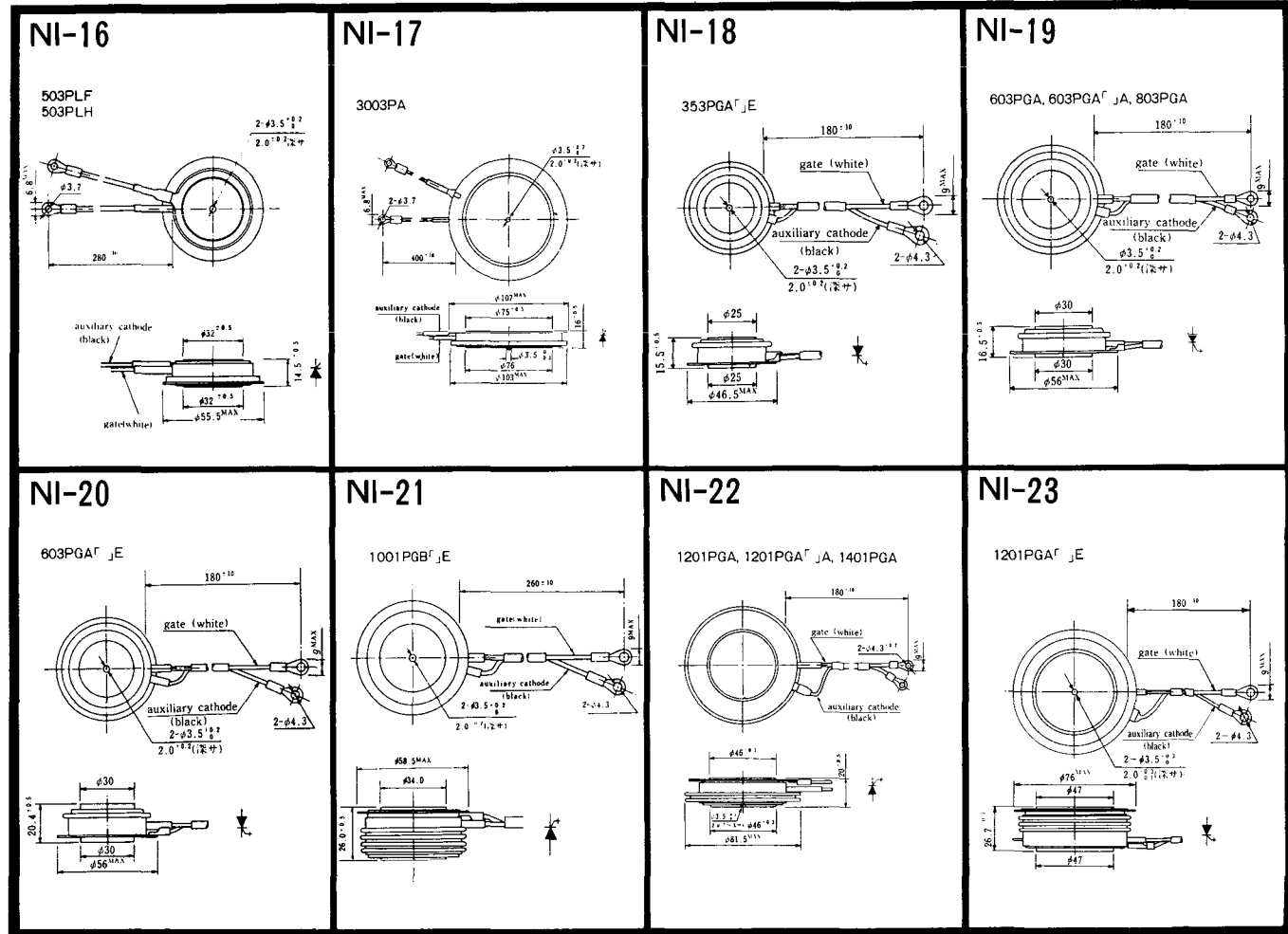


NI-14



NI-15





NI-24

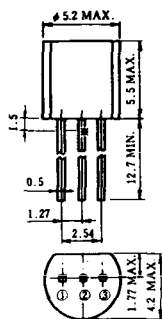
2001PGB^r JE



NI-25

NI-26

NT-1



電極接続
① T₁
② ゲート
③ T₂

NT-2



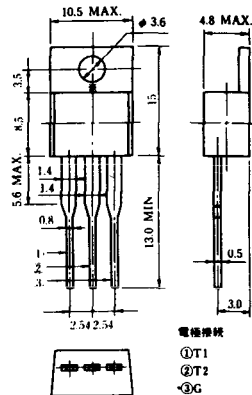
電極接続
① T₁
② ゲート
③ T₂

NT-3



電極接続
① T₁
② T₂
③ ゲート

NT-4



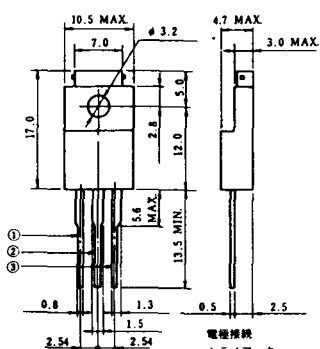
電極接続
① T₁
② T₂
③ G

NT-5



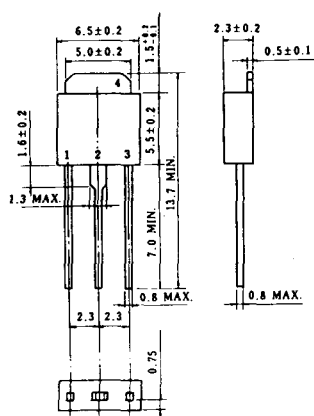
電極接続
トライアック
① T₁
② T₂
③ ゲート
④ G

NT-6

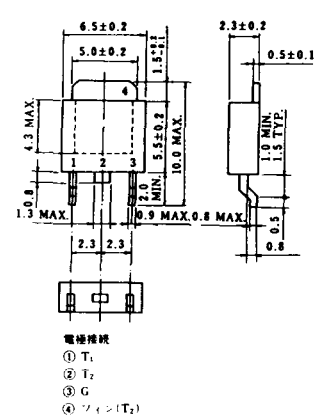


電極接続
トライアック
① T₁
② T₂
③ ゲート
④ G

NT-7



NT-8



電極接続
① T₁
② T₂
③ G
④ ソフト(T₂)

S-1



ST-1



SA-1



SA-2



SA-3



SA-4



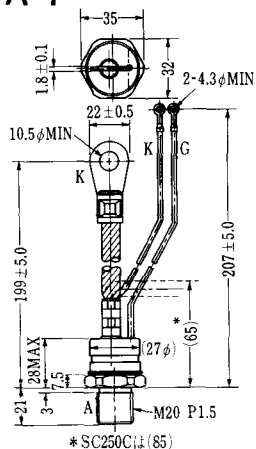
SA-5



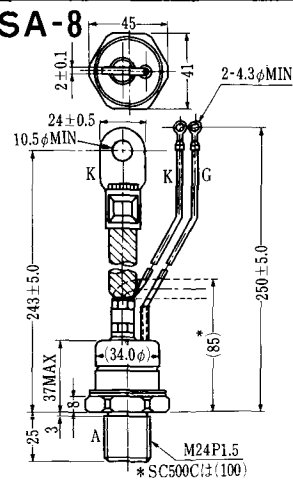
SA-6

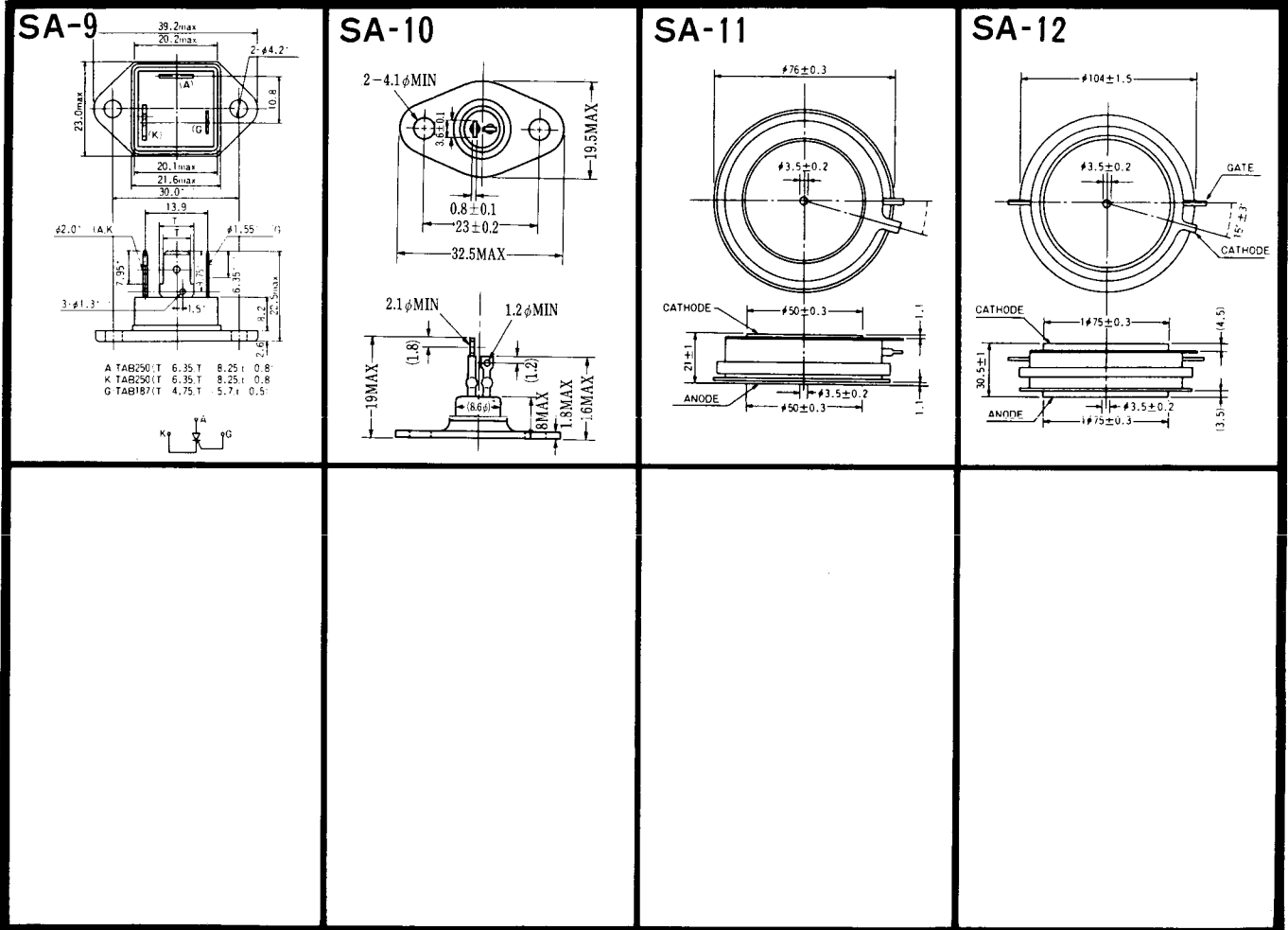


SA-7



SA-8



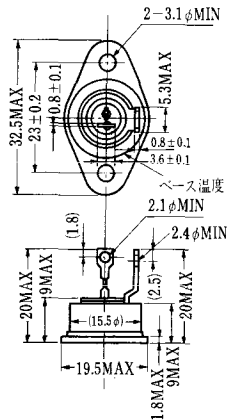


SAT-1

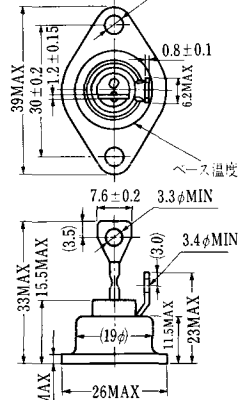


T1 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)
 T2 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)
 G 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

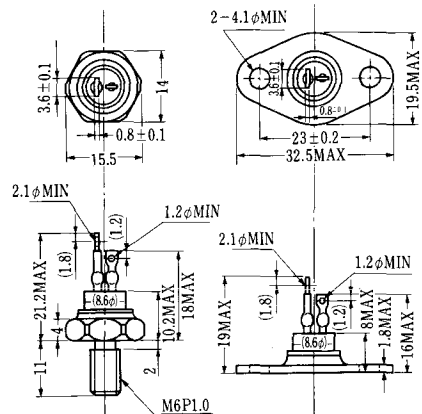
SAT-2



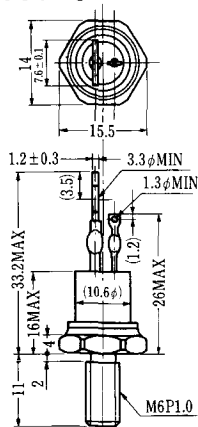
SAT-3



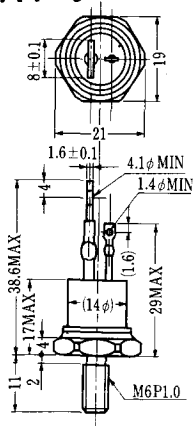
SAT-4



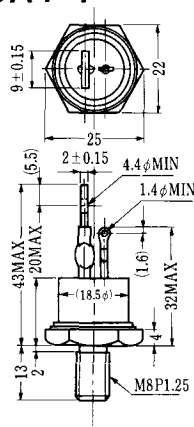
SAT-5



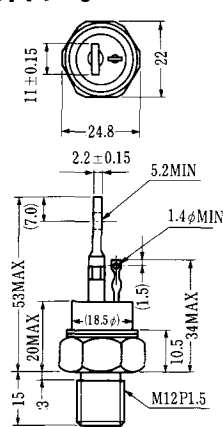
SAT-6



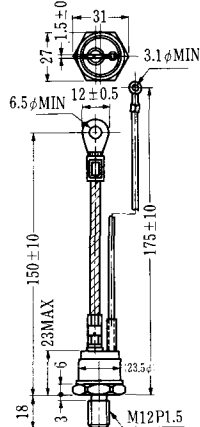
SAT-7



SAT-8



SAT-9



SAT-10



SAT-11

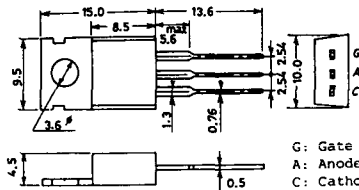


SY-1 (1096A)



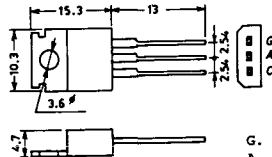
C: Cathode
A: Anode
G: Gate

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

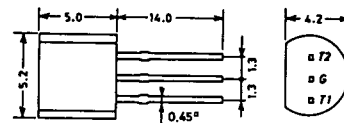


G: Gate

1102



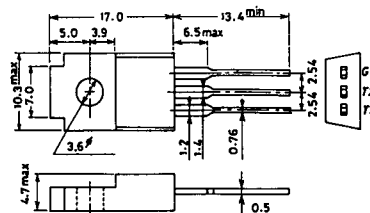
1141



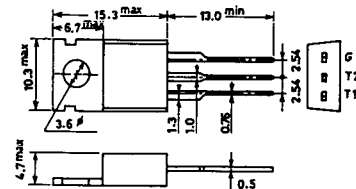
1142



1144



1155



1192A



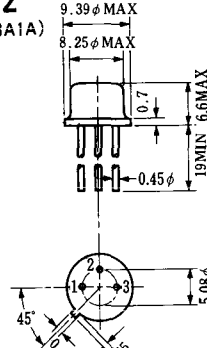
G: Gate

T-1 (13-5A1A)



- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



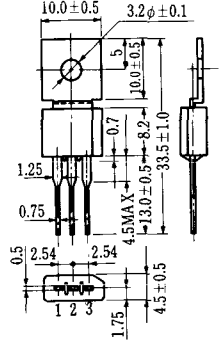
1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)



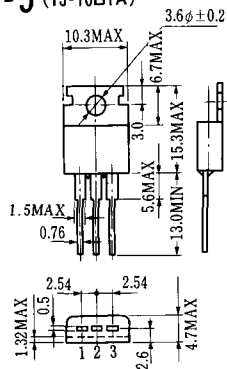
- 1 カソード
- 2 アノード
- 3 ゲート

T-4 (13-10A1A)



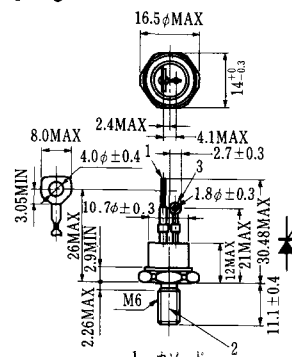
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



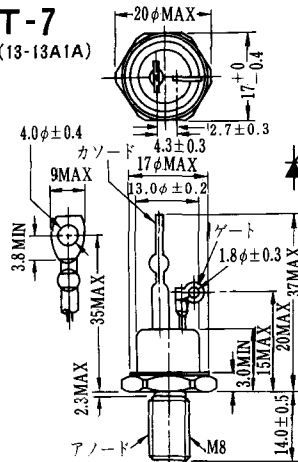
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



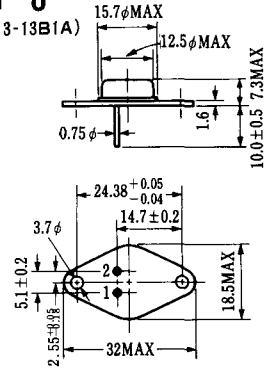
- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)



- 1 カソード
- 2 アノード
- 3 ゲート

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)



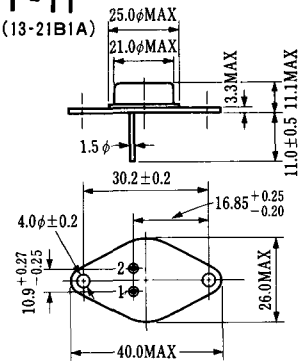
1. ゲート
2. カソード
- アノード(ケース)

T-10 (13-19A1A)



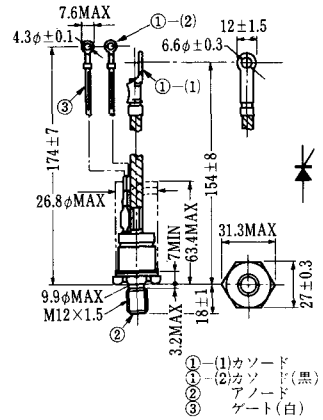
1. カソード
2. アノード
3. ゲート

T-11 (13-21B1A)



1. ゲート
2. カソード
- アノード(ケース)

T-12 (13-27B1B)



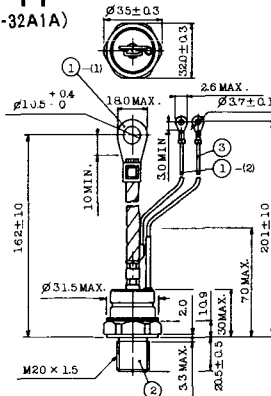
- ① カソード
- ② アノード
- ③ ゲート(白)

T-13 (13-27C1A)



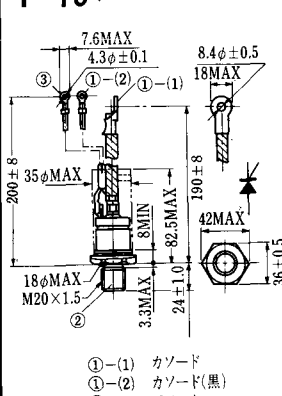
- 1-① カソード
- 1-② カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-14 (13-32A1A)



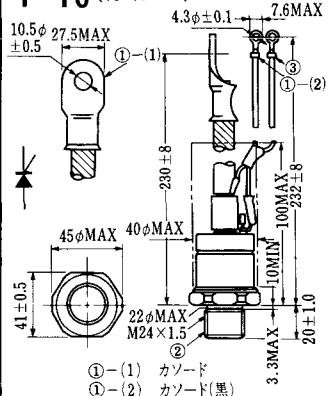
- 1-① カソード
- 1-② カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-15 (13-35C1B)



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

T-16 (13-40B1A)

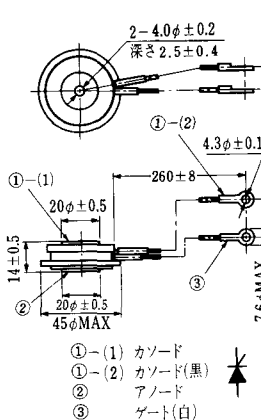


- ①-① カソード
- ①-② カソード(黒)
- ② アノード
- ③ ゲート(白)

T-17 (13-42A1A)



T-18 (13-45D1A)



T-19 (13-52B1A)



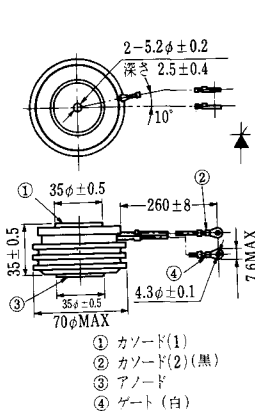
T-20 (13-52C1A)



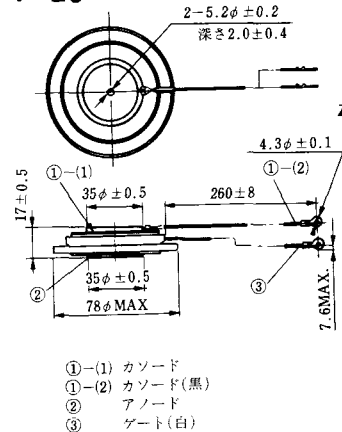
T-21 (13-60A1A)



T-22 (13-70C1A)



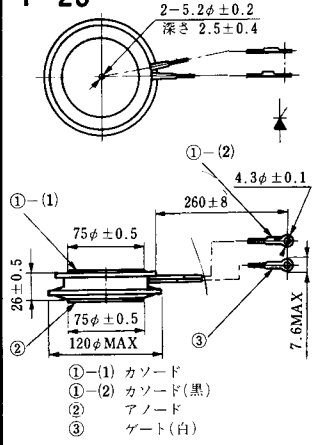
T-23 (13-78A1A)



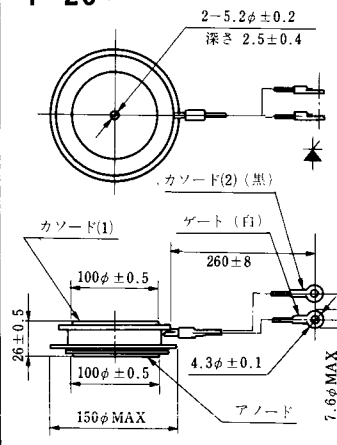
T-24 (13-100C1A)



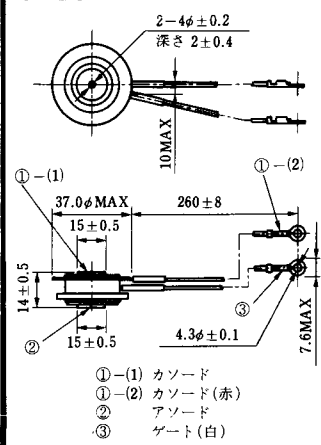
T-25 (13-120A2A)



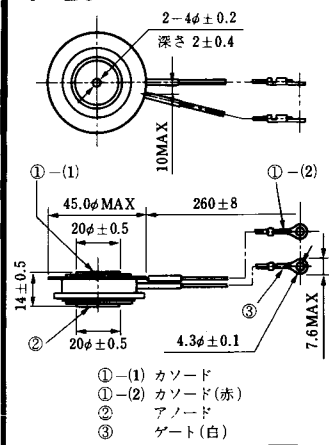
T-26 (13-150A1A)



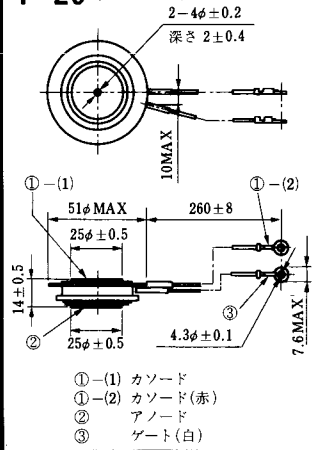
T-27 (13-37A1A)



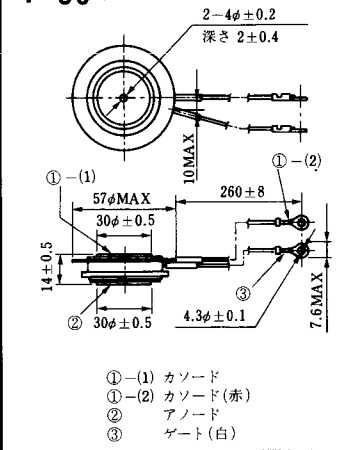
T-28 (13-45E1A)



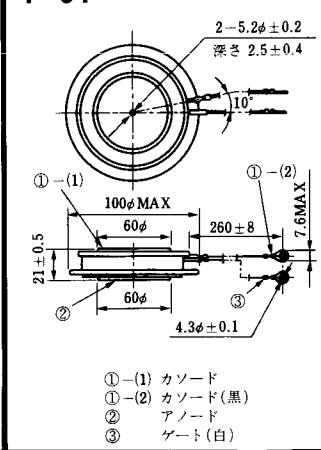
T-29 (13-51A1A)



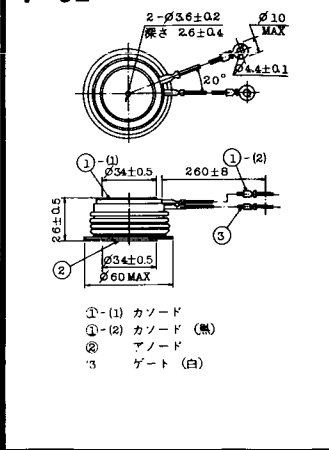
T-30 (13-57A1A)



T-31 (13-100E1A)



T-32 (13-60E3A)



T-33 (13-78B1A)



- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



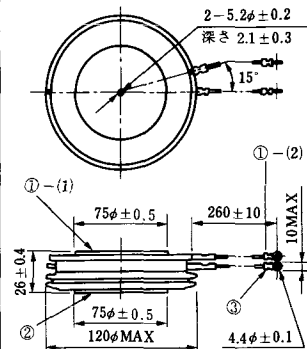
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



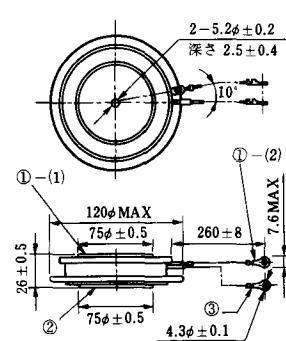
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



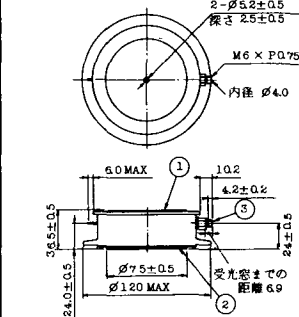
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



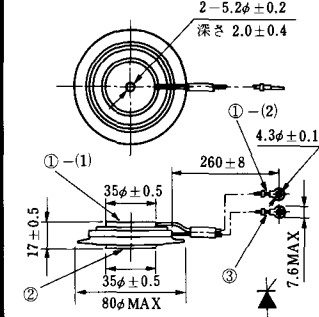
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



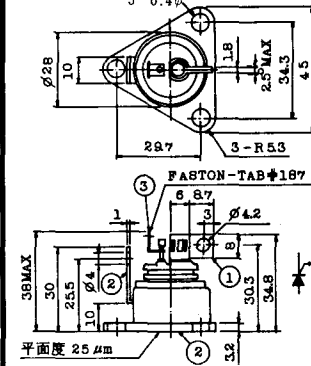
- ① カソード
- ② アノード
- ③ ゲート

T-39 (13-80B1A)



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

T-40 (13-28A1A)

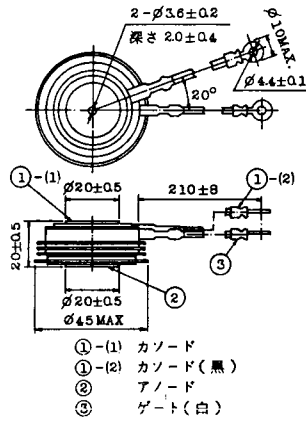


- 1. カソード
- 2. アノード
- 3. ゲート

T-41 (13-28A2A)



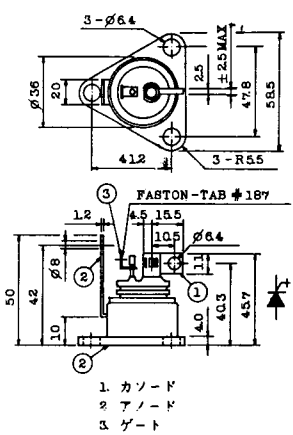
T-42 (13-45F1A)



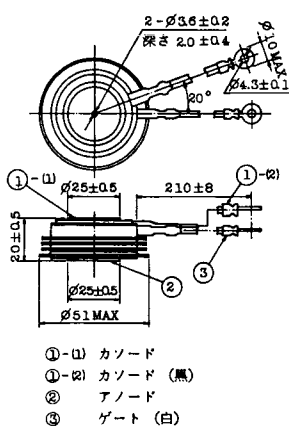
T-43 (13-60E2A)



T-44 (13-36A1A)



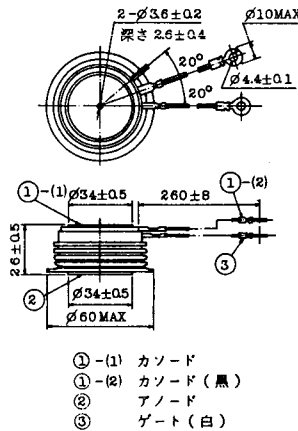
T-45 (13-51B1A)



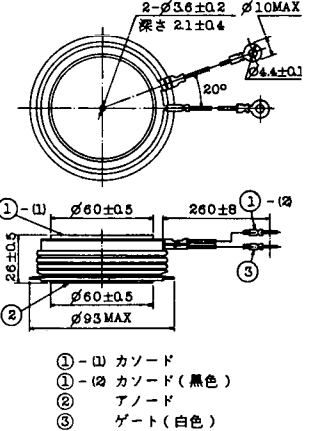
T-46 (13-36B1A)



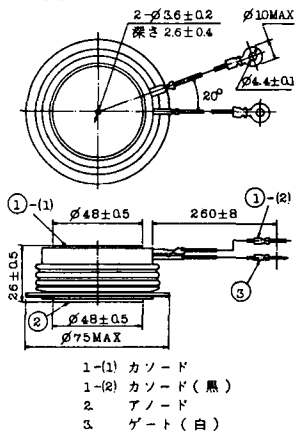
T-47 (13-60E1A)



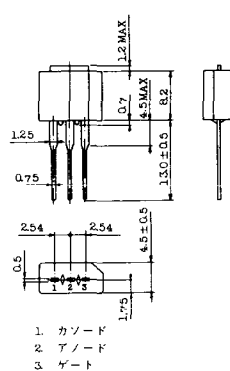
T-48 (13-93C1A)



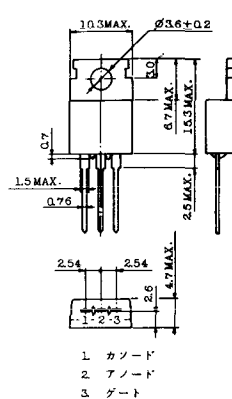
T-49 (13-75A1A)



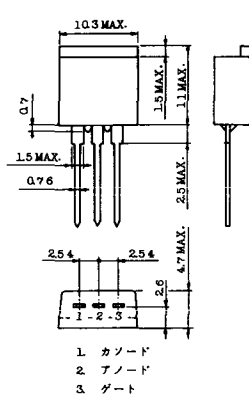
T-50 (13-10A3A)



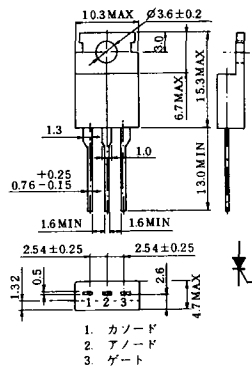
T-51 (13-10D1A)



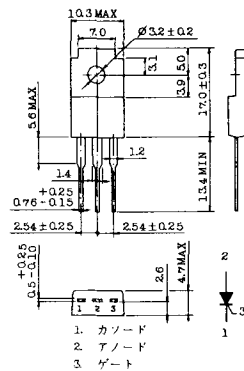
T-52 (13-10D2A)



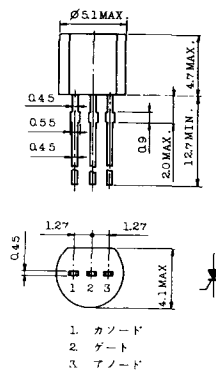
T-53 (13-10E1B)



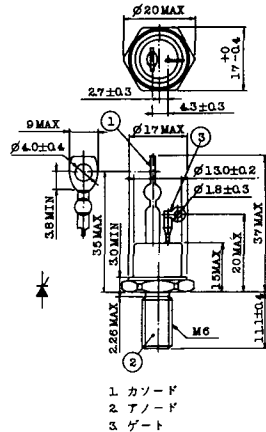
T-54 (13-10F1B)



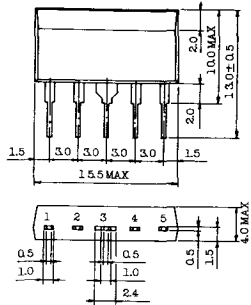
T-55 (13-5A1D)



T-56 (13-13C1A)

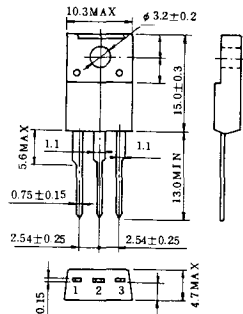


T-57 (12-16C1A)



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)



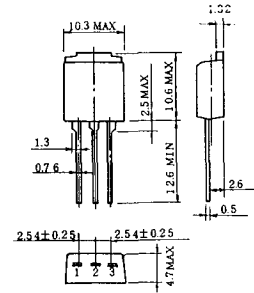
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



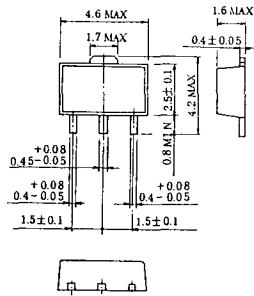
- 1-(1) カソード
- 1-(2) カソード (黒)
2. アノード
3. ゲート (白)

T-60



1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



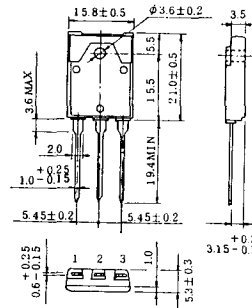
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



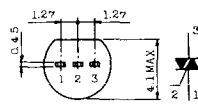
1. カソード
2. アノード
3. ゲート

TT-1



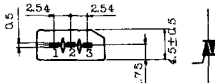
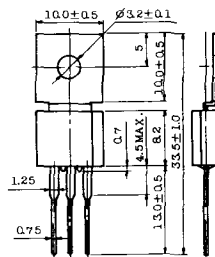
- 1 ゲート
- 2 T₂
- 3 T₁

TT-2



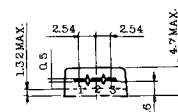
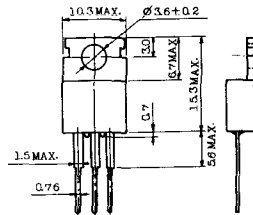
- 1 T₁
- 2 ゲート
- 3 T₂

TT-3



- 1 T₁
- 2 T₂
- 3 ゲート

TT-4



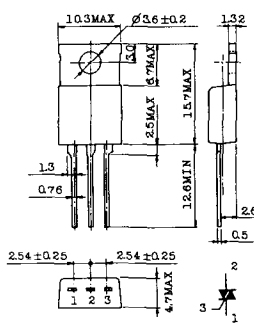
- 1 T₁
- 2 T₂
- 3 ゲート

TT-5



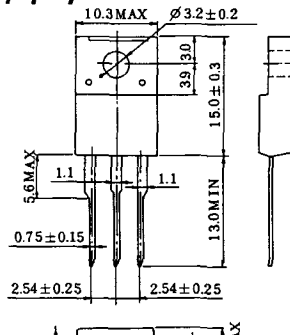
- 1 T₁
- 2 T₂
- 3 ゲート

TT-6



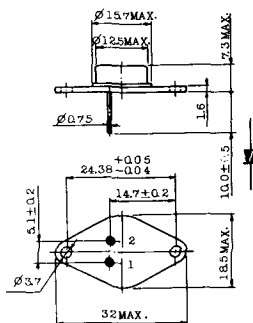
- 1 T₁
- 2 T₂ (放熱板)
- 3 ゲート

TT-7



- 1 T₁
- 2 T₂
- 3 ゲート

TT-8



- 1 ゲート
- 2 T₁
- T₂ (ケース)

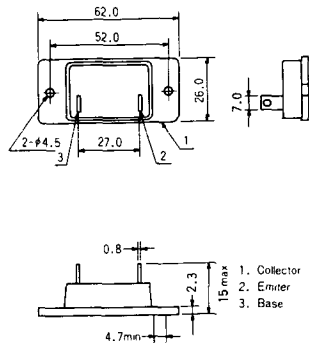


TS-8



- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

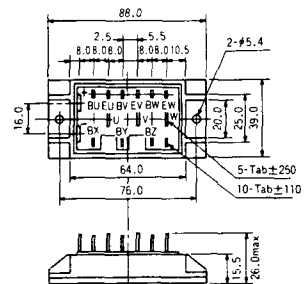
S-62A1A



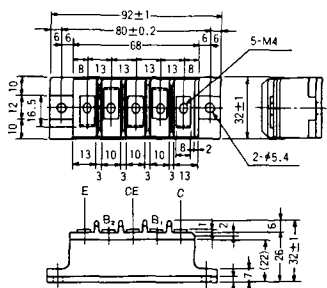
S-80A1A



S-88D1A



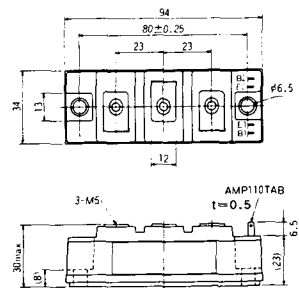
S-92B1A



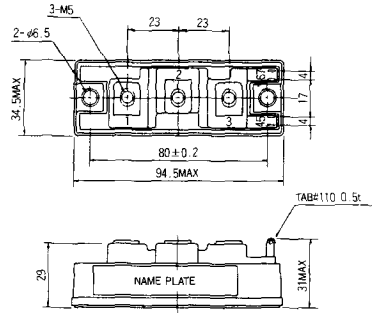
S-94B1A



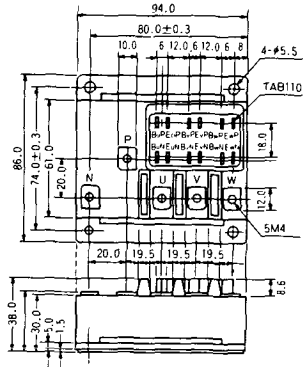
S-94B1B



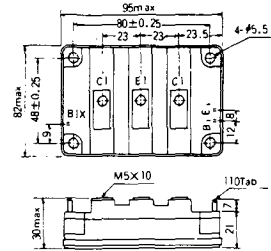
S-94B2A



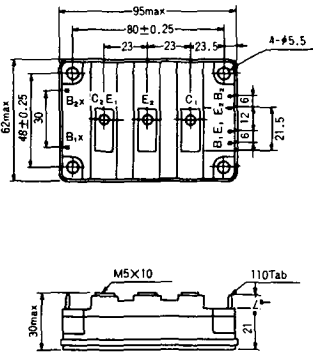
S-94D1A



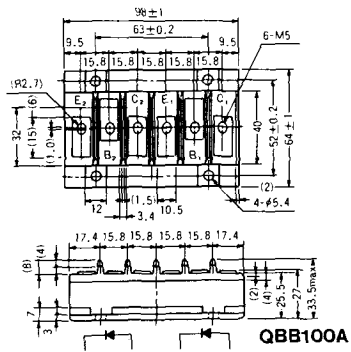
S-95A1A



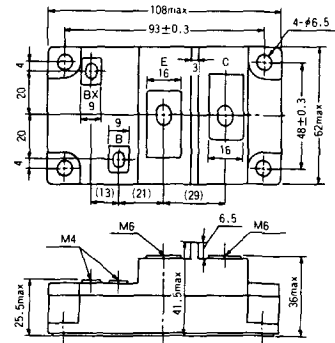
S-95B1A



S-98B1B



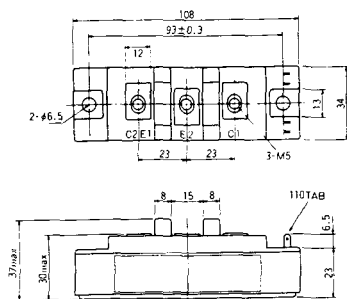
S-108A2A



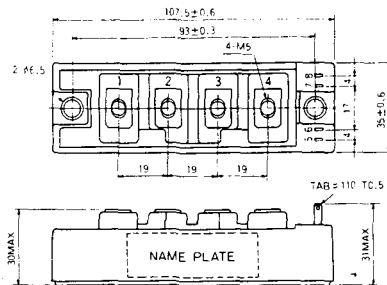
S-108B1A



S-108B1B



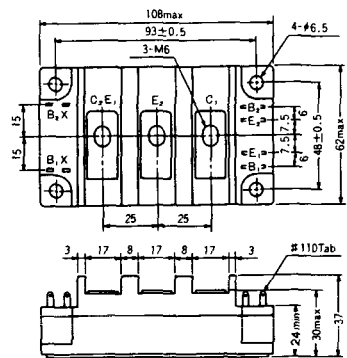
S-108B1C



S-108B2A



S-108B2B



2-22B1A



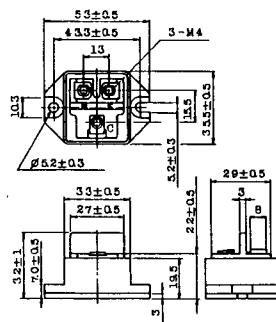
2-27A4A



2-33C1A



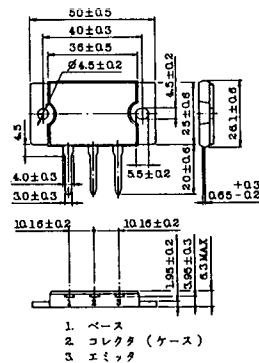
2-33D1A



2-33F1A



2-37A1A



2-48A3A



2-48A3B



2-48A4A



2-64A2A



2-64A2B



2-68A2A



2-68B2A



2-68C1A



2-68D2A



2-72A3A



2-80A1A



2-80B1A



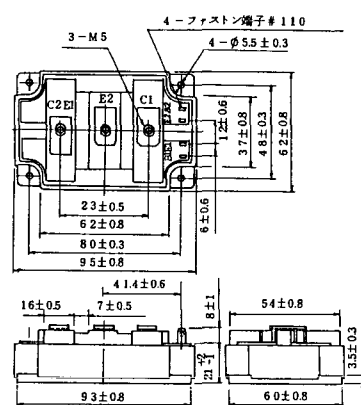
2-94D1A



2-96A3A



2-96A4A



2-98B1A



2-98C2A



2-108A2A



2-108B1A



2-109A3A



2-109A4A



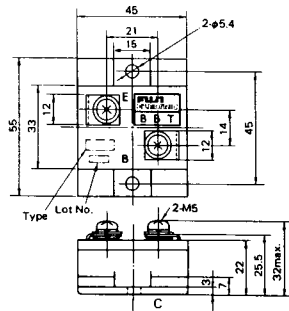
2-109B3A



2-109B4A

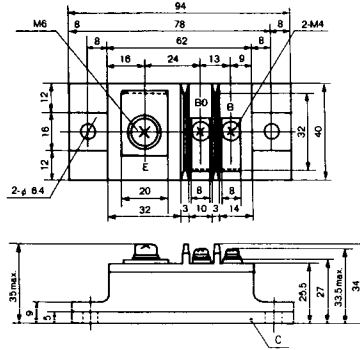


BBT-II BBTIII
1D200A-020



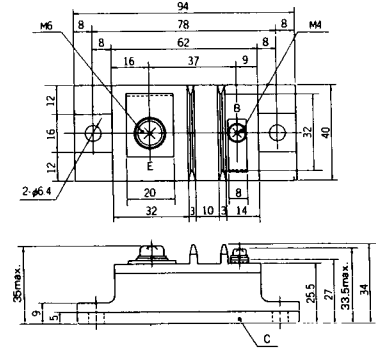
BBT-III

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



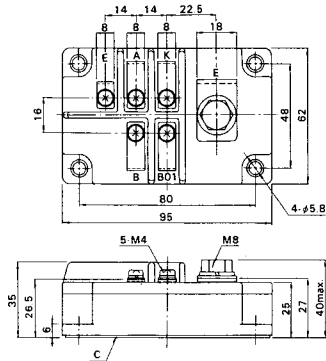
BBT-III

BBTIII
ETN01-055
ET1257



BBT-IV

BBTIV
1D500A-030



M-101



M-102



M-103



M-104



M-105



M-106



M-107



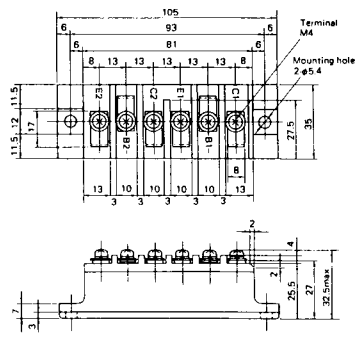
M-116



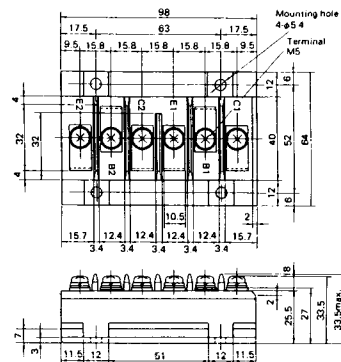
M-201



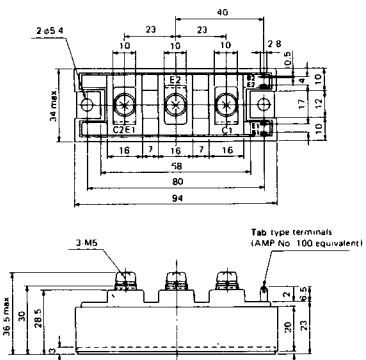
M-202



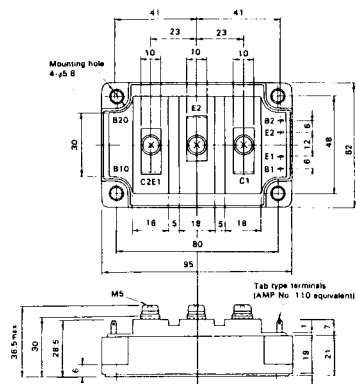
M-203



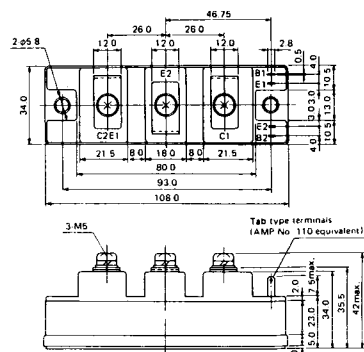
M-204



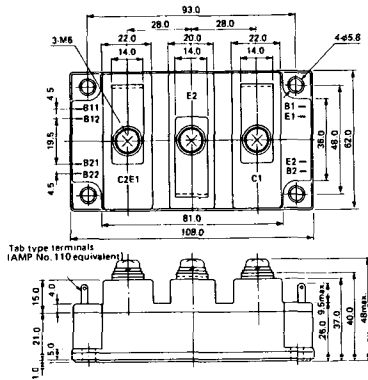
M-205



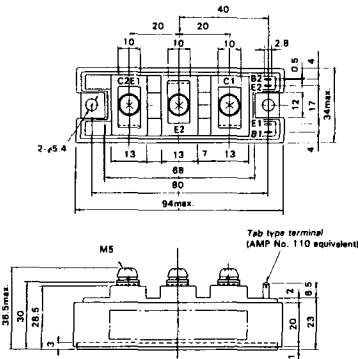
M-206



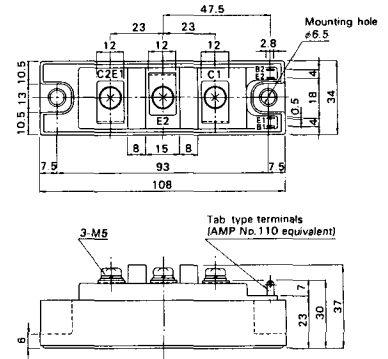
M-207



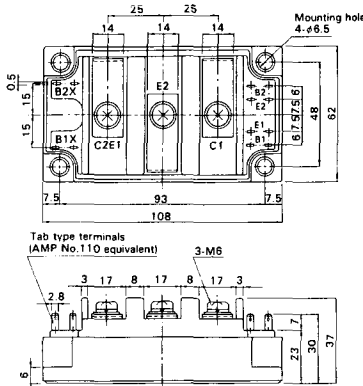
M-208



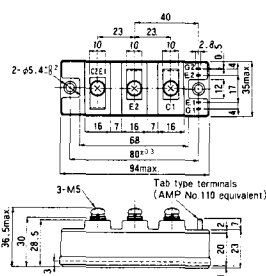
M-209



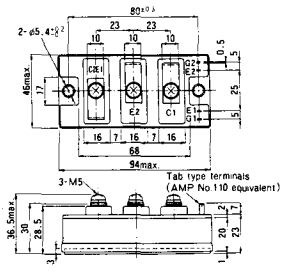
M-210



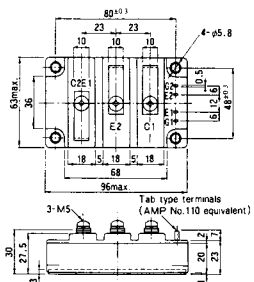
M-211



M-212



M-213

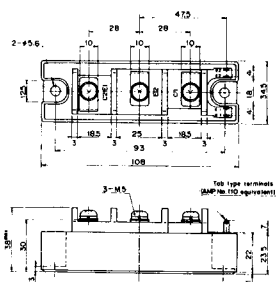


M-214

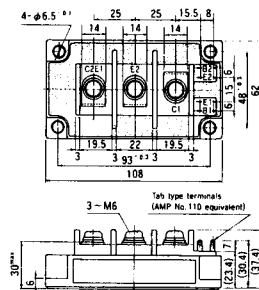
M-215



M-216



M-217



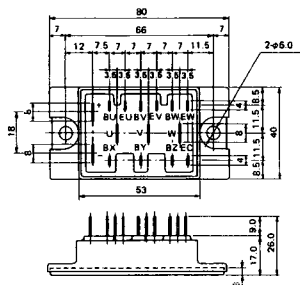
M-218



M-219



M-601



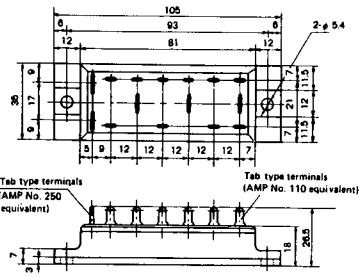
Tab type terminals
(AMP No. 110 equivalent)



Tab type terminals
(AMP No. 250 equivalent)



M-602



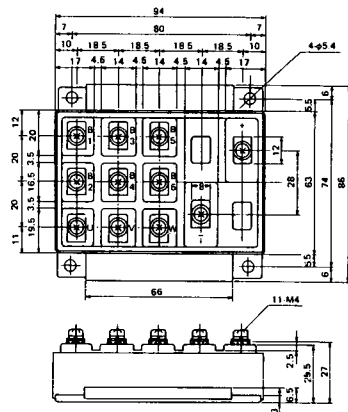
Tab type terminals
(AMP No. 250 equivalent)



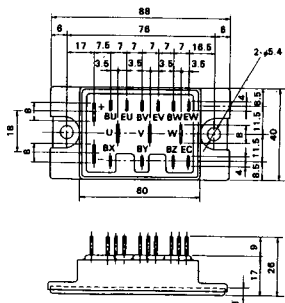
Tab type terminals
(AMP No. 110 equivalent)



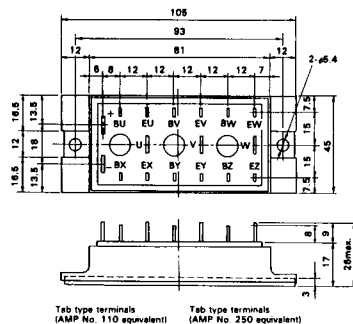
M-603



M-604



M-605



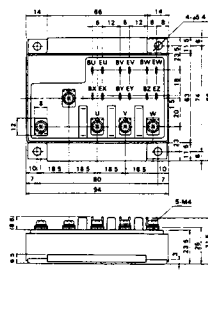
Tab type terminals
(AMP No. 110 equivalent)



Tab type terminals
(AMP No. 250 equivalent)



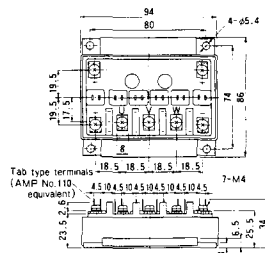
M-606



M-607



M-608



M-609



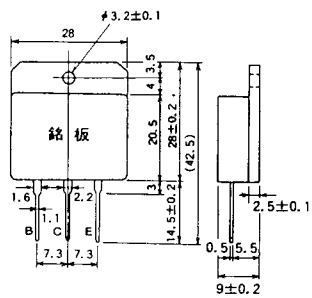
M-610



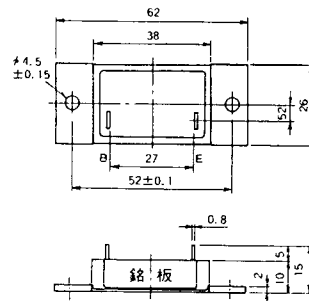
M-616



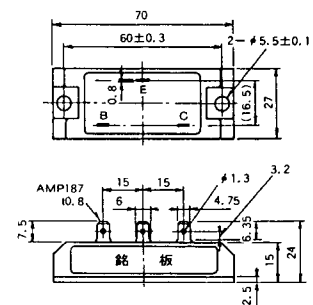
M-1A1A



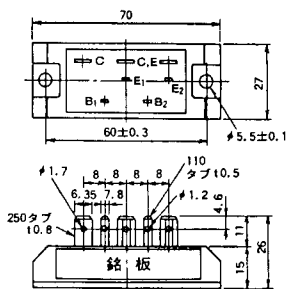
M-2A1A



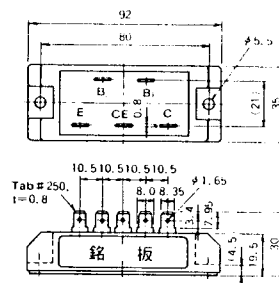
M-2B1A



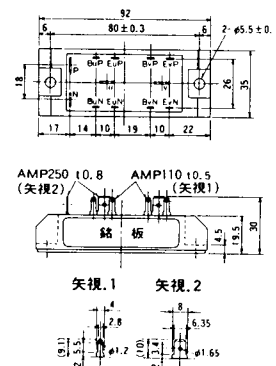
M-2B2A



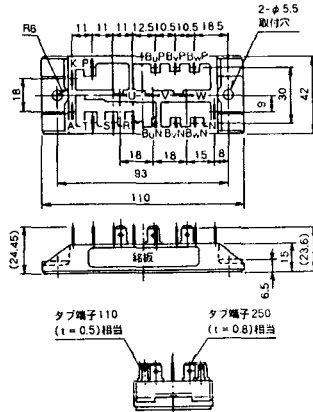
M-2C2A



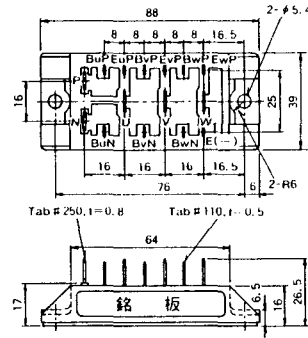
M-2D4A



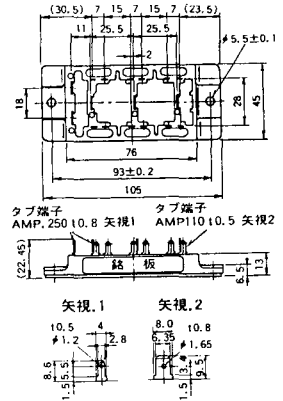
M-2E6A



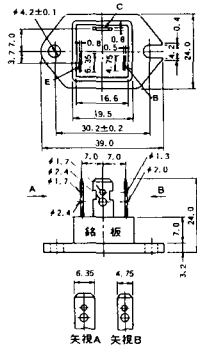
M-2F6A



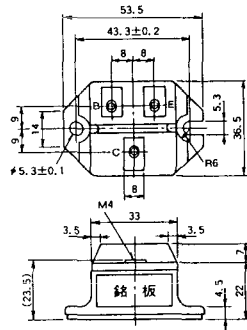
M-2G6A



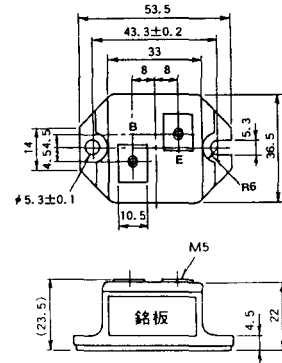
M-3A1A



M-3B1A



M-3B1B



M-3C1A



M-3D6A



M-3E6A



M-4A1A



M-4A2A



M-4A1B



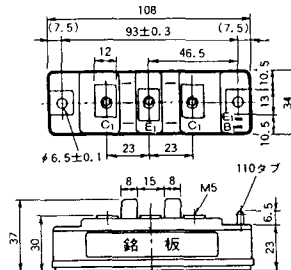
M-4A2B



M-4B2A



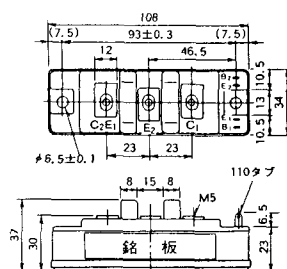
M-5A1A



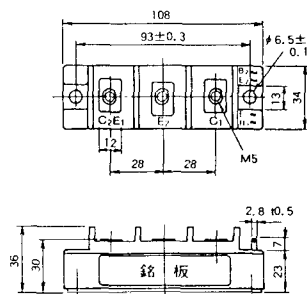
M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



M-7B1A



M-8A1A



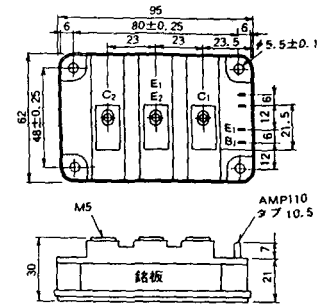
M-8A1B



M-8A2A



M-8A2B



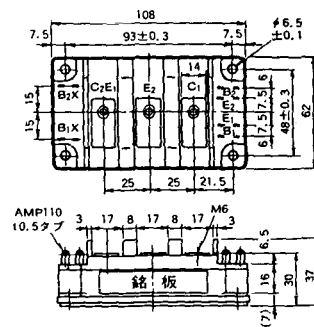
M-8B2A



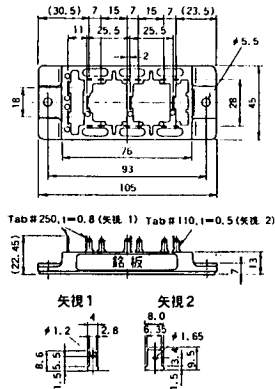
M-9A1A



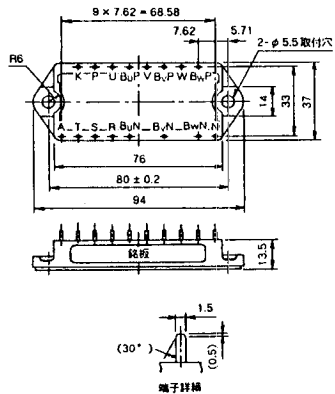
M-9A2A



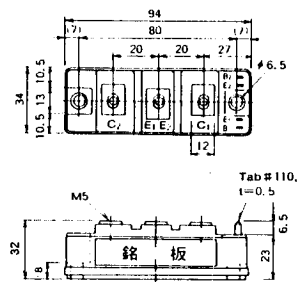
M-2G6B



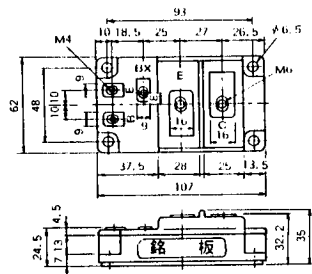
M-3D6B



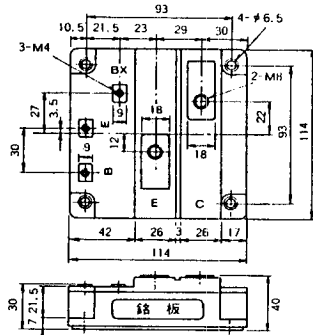
M-4A2C



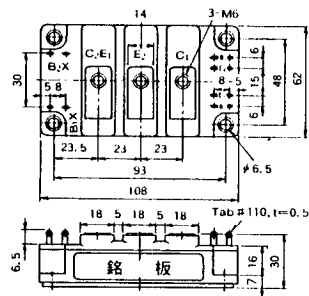
M-7A1B



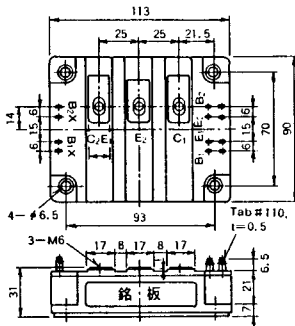
M-7C1A



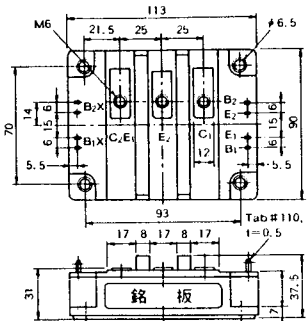
M-8A2C



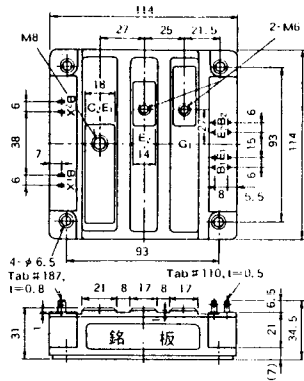
M-10A2A



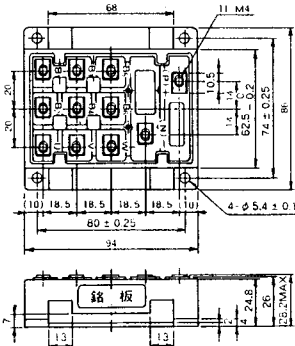
M-10A2B



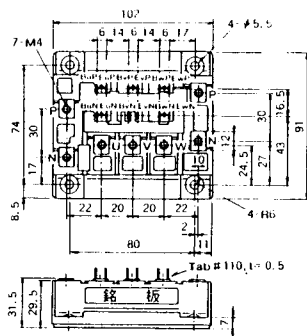
M-11A2A



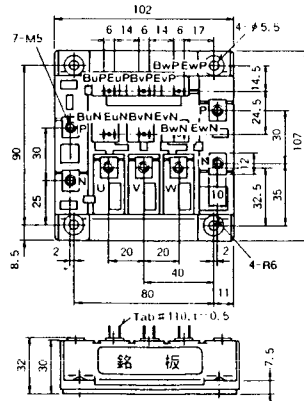
M-12A6A



M-12B6A



M-12B6B



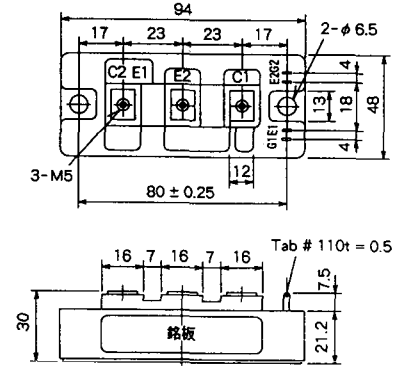
M-4A2D



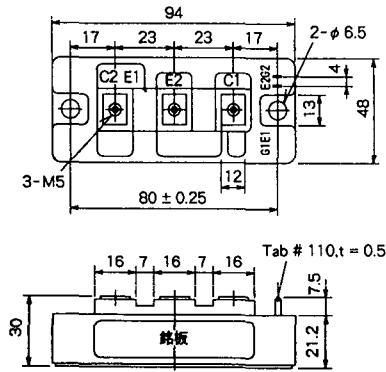
M-4A2E



M-4C2A



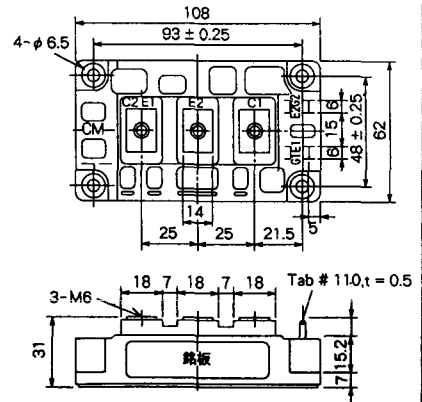
M-4C2B



M-9B1C



M-9D2A



M-9D2B



M-10A2C



H-101



Weight :480g

H-201



Weight: 200g

H-202



Weight: 360g

