

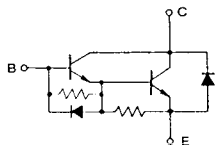
トランジスタ・モジュール (NPN, 1アーム)

- ダーリントン・トランジスタ1個内蔵
- フリーホイール・ダイオード付
- 絶縁形
- UL認定品あり

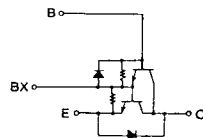
Yellow Card No. : E80276 (N)
File No. : E80271

■等価回路

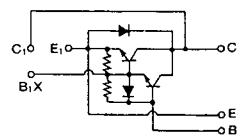
HA-1A



HA-1B



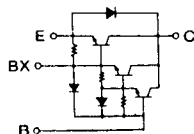
HA-1C



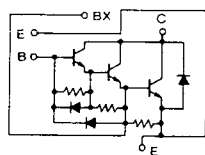
注1. $I_c = 1A$, $V_{EB} = 2V$, #印は V_{CEX} ($V_{EB} = 2V$)。 注2. 60Hz, 単相半波1サイクル波高値。 注3. $T_c = 25^\circ C$ 。 注4. AC, 1分間。

型名	最大定格 (T _J = 25°C)											電気的特性									
	V _{CEO}	V _{CEX (SUS)}	V _{EB0}	I _c	I _B	I _F	I _{FM}	P _c	T ₁	T _{100%}	V _{100%}	I _{CEX}	I _{ERO}	V _{CE0 (SUS)}	I _c	h _{FE}	V _{CE}	I _c			
	(V)	(V)	(V)	(A)	(A)	(A)	(A)	(W)	(°C)	(°C)	(V)	最大 (mA)	V _{CE} (V)	V _{EB} (V)	最大 (mA)	V _{EB} (V)	最小 (V)	I _c (A)	最小 (V)	I _c (A)	
QM5HG-24	1200	1200 #	7	5	2.0	-	-	100	150	-40~125	-	1	1200	2	50	7	-	-	5	1	3
QM10HB-2H	1000	1000	7	10	2.0	-	-	100	150	-40~125	2500	-	-	-	-	-	-	-	5	1	15
QM15HA-H	600	600	5	15	0.9	15	-	100	150	-40~125	2500	-	-	-	50	5	-	-	50/100	2/5	15
QM30HA-H	600	600	7	30	1.8	30	300	250	150	-40~125	2500	1	600	2	200	7	-	-	75/100	2/5	30
QM30HC-2H	1600	1600 #	10	30	5.0	30	300	310	150	-40~125	-	1	1600	2	400	10	-	-	75	5	30
QM30HQ-24	1200	1200	7	30	6.0	-	-	310	150	-40~125	2500	1	1200	2	200	7	-	-	5	1	15
QM30HY-2H	1000	1000	7	30	2.0	30	300	310	150	-40~125	2500	1	1000	2	200	7	-	-	75/100	2.8/5	30
QM50HA-H	600	600	7	50	3.0	50	500	310	150	-40~125	2500	1	600	2	200	7	-	-	75/100	2/5	50
QM50HC-H	900	900 #	10	50	3.0	30	300	310	150	-40~125	-	1	900	2	300	10	-	-	100	5	50
QM50HF-H	900	900 #	10	50	3.0	30	300	160	150	-40~125	1500	1	900	2	300	10	-	-	100	5	50
QM50HG-H	600	600	7	50	3.0	50	300	140	150	-40~125	2000	1	600	2	100	7	-	-	100	5	50
QM50HG-4	200	200	7	50	3.0	50	300	140	150	-40~125	1500	1	200	2	200	7	-	-	1000	1.5	50
QM50HJ-H	900	900 #	10	50	3.0	30	300	178	150	-40~125	-	3	900	2	100	10	-	-	100	5	50
QM50HY-2H	1000	1000	7	50	3.0	50	500	400	150	-40~125	2500	1	1000	2	200	7	-	-	75/100	2.8/5	50
QM75HA-H	600	600	7	75	4.5	75	750	350	150	-40~125	2500	1	600	2	200	7	-	-	75/100	2/5	75
QM100HC-M	400	350	7	100	3.0	100	1000	420	150	-40~125	-	1	350	2	200	7	-	-	100/200	2/5	100
QM100HY-H	600	600	7	100	6.0	100	1000	620	150	-40~125	2500	2	600	2	100	7	-	-	75/100	2/5	100
QM100HY-2H	1000	1000	7	100	5.0	100	1000	800	150	-40~125	2500	2	1000	2	400	7	-	-	75/100	2.8/5	100
QM150HY-H	600	600	7	150	9.0	150	1500	690	150	-40~125	2500	2	600	2	150	7	-	-	75/100	2/5	150
QM150HY-2H	1000	1000	7	150	8.0	150	1500	1000	150	-40~125	2500	2	1000	2	200	7	-	-	75/100	2.8/5	150

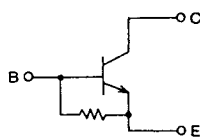
HA-2B



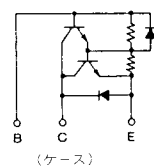
HA-2C



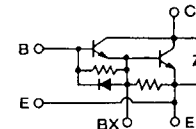
HB-1A



HC-1A



HC-1B



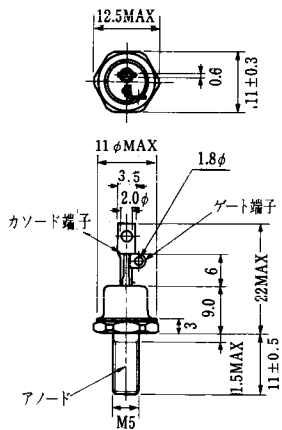
(T_J = 25°C)

エミッタ・コレクタ間ダイオード

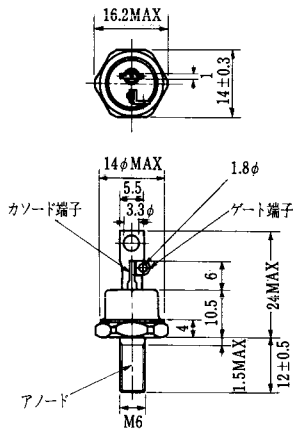
熱抵抗

飽和電圧 (V)		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 _{CE}	V _{BE}	I _C	I _B	t _{on}	t _{off}	t _f	I _{B1}	I _{B2}	V _{CE}	I _C	V _F	t _{rr}	θ _{J-c}	θ _{J-c}						
最大	最大	(A)	(A)	最大	最大	最大	(A)	(A)	(V)	(A)	最大	(A)	最大	最大					最大	最大
1.0	1.5	3	0.6	1.0	4.0	0.8	0.6	-1.2	600	3	-	-			1.25		HB-1A	M-1A1C	非絶縁形	QM5HC-24
1.0	1.5	5	1.0	1.5	7.0	2.0	1.0	-1.0	600	15					1.2		HB-1A	M-1A1A	UL認定済	QM10HB-2H
2.0	2.5	15	0.3	1.5	8.0	2.0	0.3	-0.3	300	15	1.5	15			1.2		HA-1A	M-3A1A	UL認定済	QM15HA-H
2.0	2.5	30	0.4	1.5	12	3.0	0.6	-0.6	300	30	1.85	30			0.5	1.0	HA-1A	M-3B1A	UL認定済	QM30HA-H
2.0	2.5	30	2.0	4.0	5.0	3.0	2.0	-5.0	100	30	1.5	30			0.4	0.8	HC-1A	M-2A1A	非絶縁形	QM30HC-2H
1.0	1.5	15	3.0	1.5	7.0	2.0	3.0	-3.0	600	15	-	-			0.4		HB-1A	M-2B1A	F/D無, UL認定済	QM30HQ-24
2.5	3.5	30	0.6	2.5	15	3.0	0.6	-0.6	600	30	1.8	30			0.4	1.5	HY-2A	M-4A1A	UL認定済	QM30HY-2H
2.0	2.5	50	0.65	1.5	12	3.0	1.0	-1.0	300	50	1.75	50			0.4	1.3	HA-1A	M-3B1A	UL認定済	QM50HA-H
2.0	2.5	50	1.0	2.0	5.0	2.0	1.0	-10	300	50	1.8	30			0.4	1.2	HC-1A	M-2A1A	非絶縁形	QM50HC-H
2.0	2.5	50	1.0	2.0	5.0	2.0	1.0	-5.0	300	50	1.8	50			0.8	1.3	HA-1A	M-3C1A		QM50HF-H
2.0	2.5	50	1.0	1.5	10	3.5	1.0	-1.0	300	50	1.8	50			0.9	1.5	HA-1A	M-3C1A		QM50HG-H
1.5	2.5	50	0.05	1.5	8	3.0	0.1	-1.0	100	50	1.8	50			0.9	1.5	HA-1A	M-3C1A		QM50HG-4
2.0	2.5	50	1.0	2.0	5.0	2.0	1.0	-5.0	300	50	1.8	50			0.7	1.4	HA-1A	M-1A1B	非絶縁形	QM50HJ-H
2.5	3.5	50	1.0	2.5	15	3.0	1.0	-1.0	600	50	1.8	50			0.31	1.2	HY-2A	M-4A1A	UL認定済	QM50HY-2H
2.0	2.5	75	1.0	2.5	12	3.0	1.5	-1.5	300	75	1.85	75			0.35	1.3	HA-1A	M-3B1A		QM75HA-H
2.0	2.5	100	1.0	2.0	10	3.0	2.0	-2.0	200	100	1.5	100			0.3	0.5	HA-1A	M-3B1B	非絶縁形	QM100HC-M
2.0	2.5	100	1.3	2.0	12	3.0	2.0	-2.0	300	100	1.75	100			0.2	0.65	HY-1A	M-4A1A	UL認定済	QM100HY-H
2.5	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100			0.155	0.65	HY-2A	M-4A1A	UL認定済	QM100HY-2H
2.0	2.5	150	2.0	2.5	12	3.0	3.0	-3.0	600	150	1.8	150			0.18	0.6	HY-1A	M-4A1A	UL認定済	QM150HY-H
2.5	3.5	150	3.0	3.0	15	3.0	3.0	-3.0	600	150	1.8	150			0.125	0.6	HY-2A	M-5A1A	UL認定済	QM150HY-2H

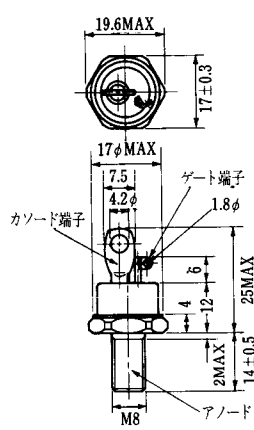
FD-1



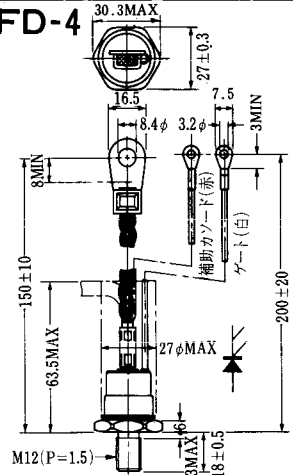
FD-2



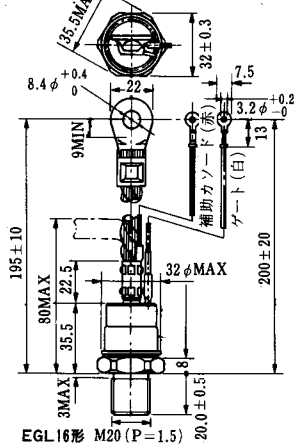
FD-3



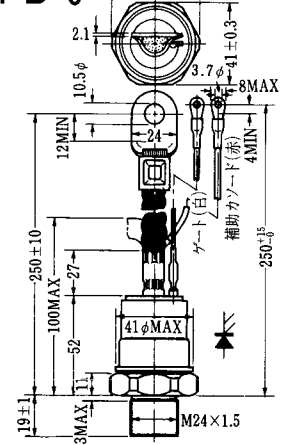
FD-4



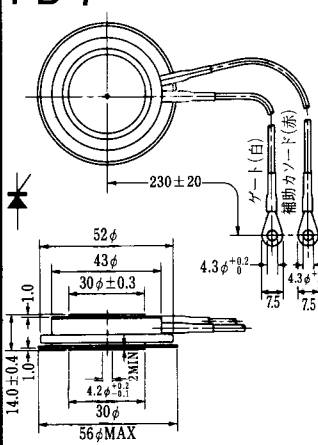
FD-5



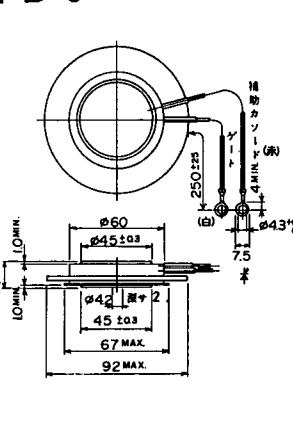
FD-6



FD-7



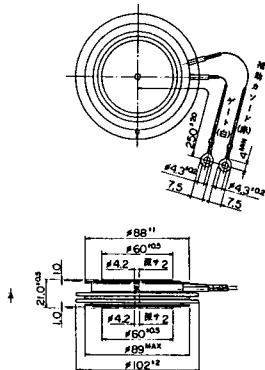
FD-8



FD-9



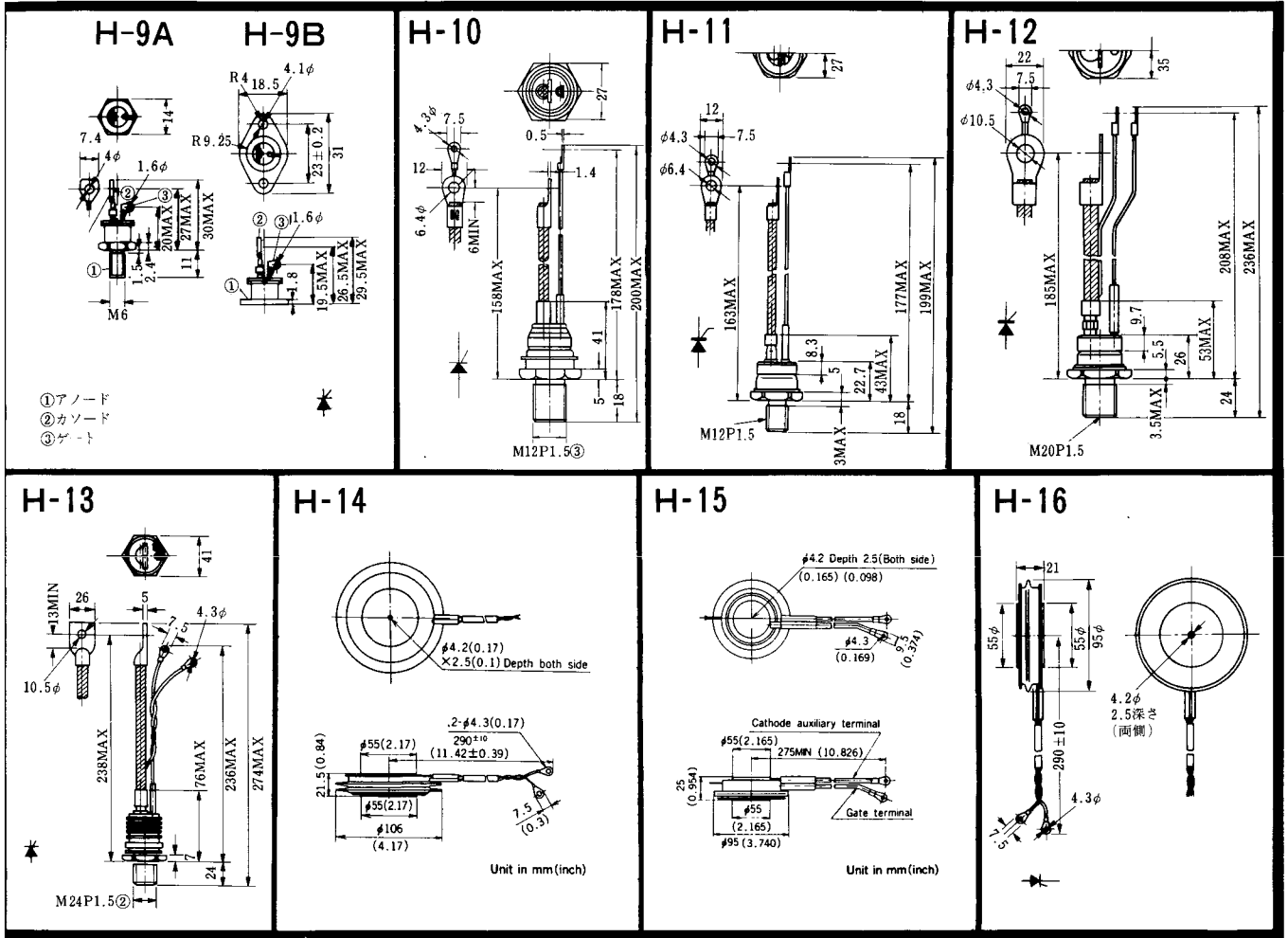
FD-10



FD-11

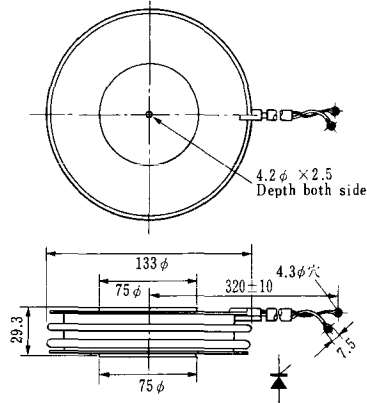
FD-12



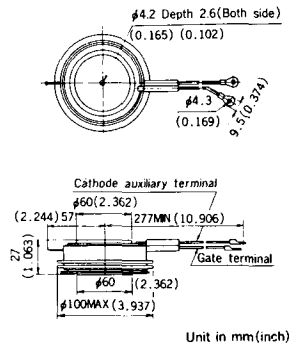


《寸法図単位：mm》

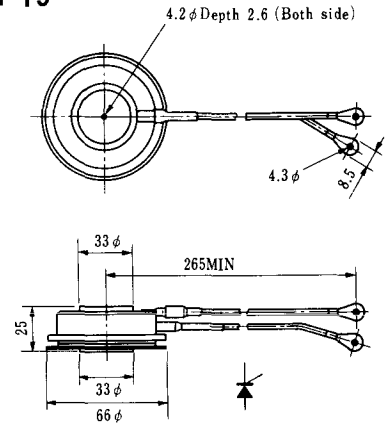
H-17



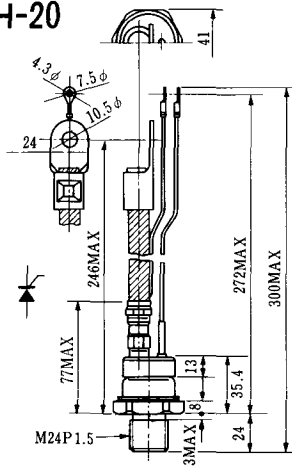
H-18



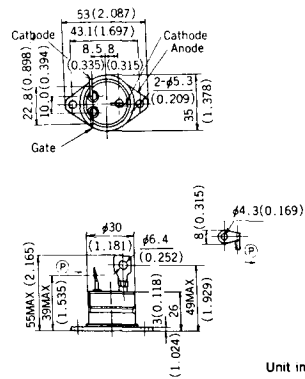
H-19



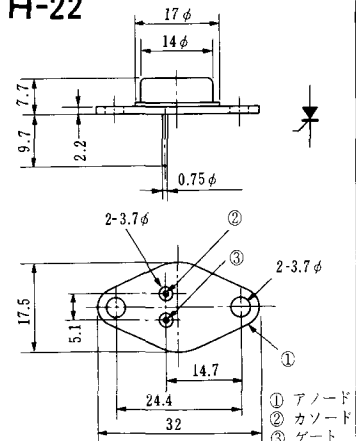
H-20



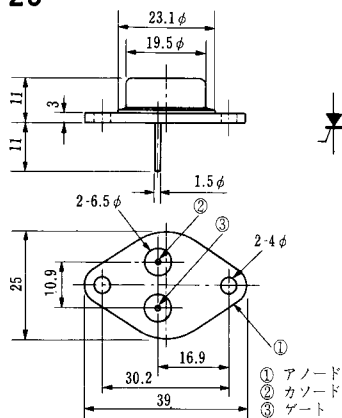
H-21



H-22

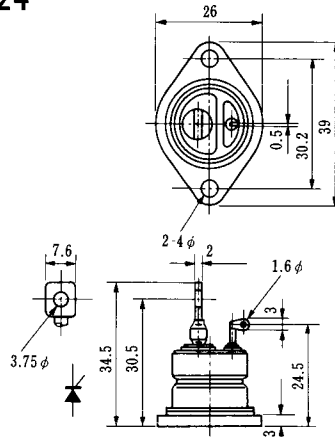


H-23

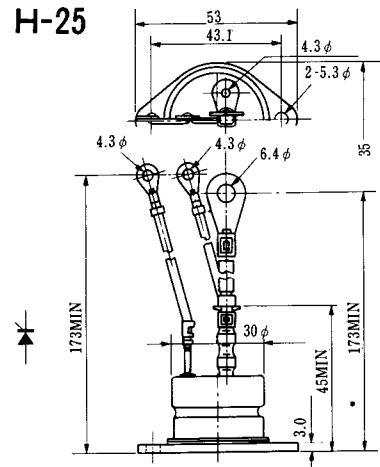


① アノード
② カソード
③ ゲート

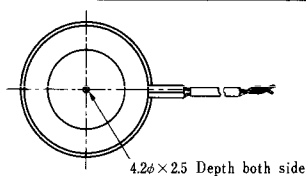
H-24



H-25

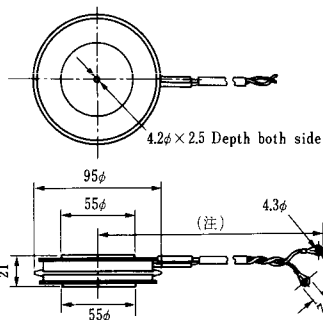


H-26



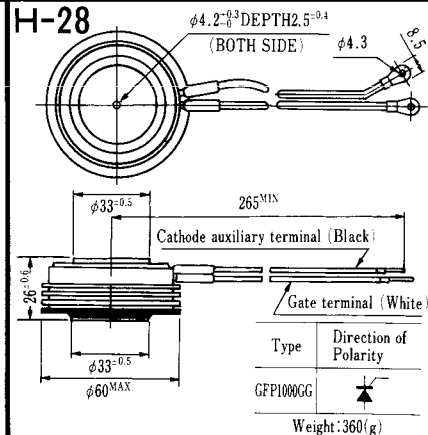
4.2φ × 2.5 Depth both side

H-27



(注) CC11V : 400 ± 10
CF11V : 250 ± 10

H-28



Weight: 360(g)

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

Type	Direction of polarity
CA12	

Type	Direction of polarity
CF11V	

Type	Direction of Polarity
GFP100GG	



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



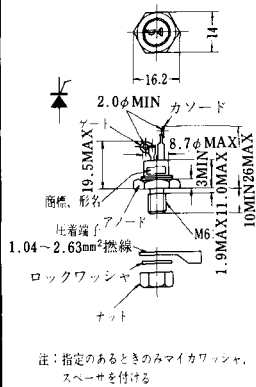
M-3



M-4



M-5



M-6



M-7



M-8



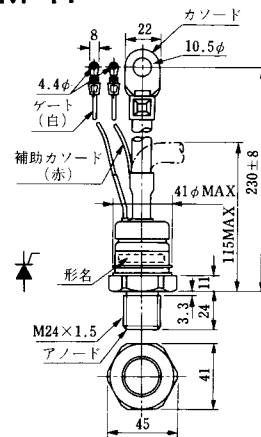
M-9



M-10



M-11



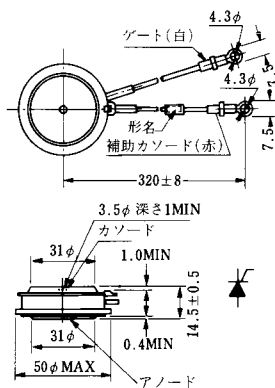
M-12



M-13



M-14



M-15

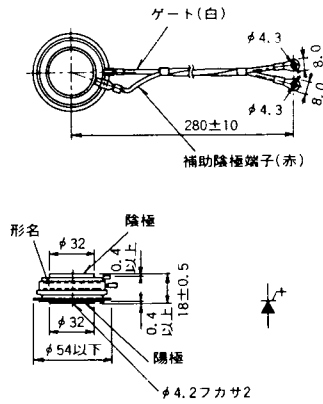


M-16

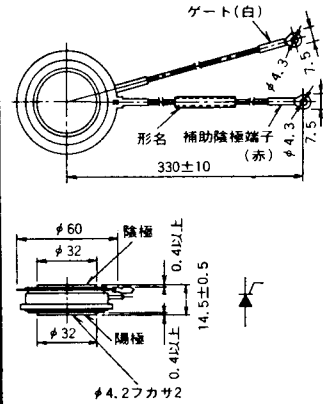




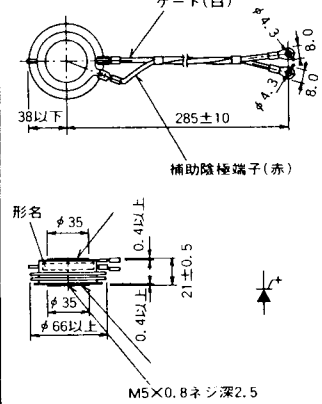
M-25



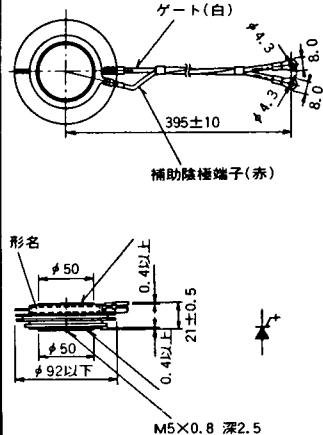
M-26



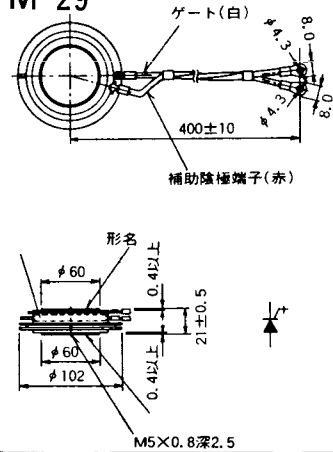
M-27



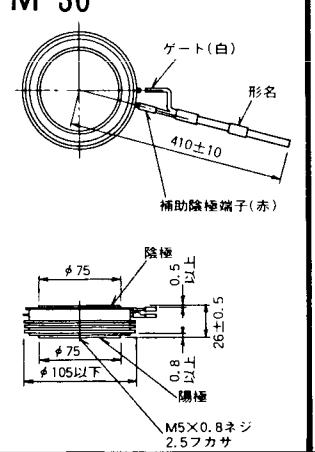
M-28



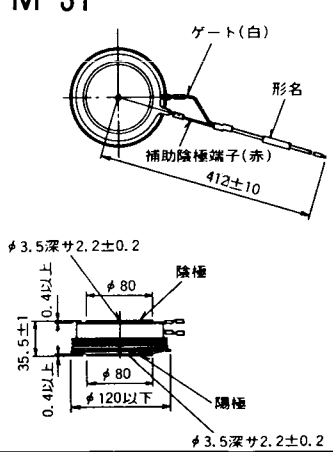
M-29



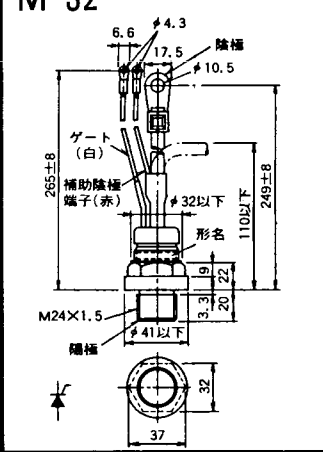
M-30



M-31



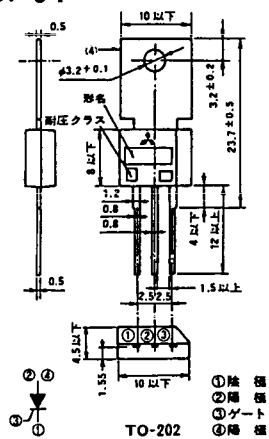
M-32



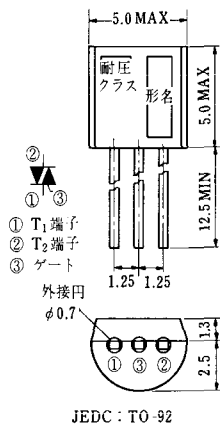
M-33



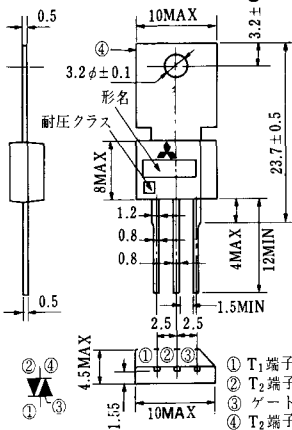
M-34



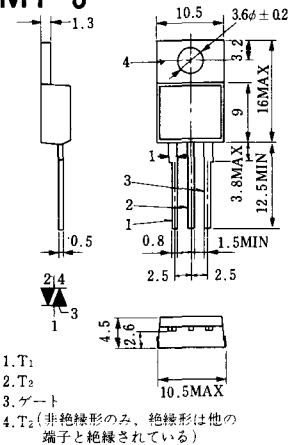
MT-1



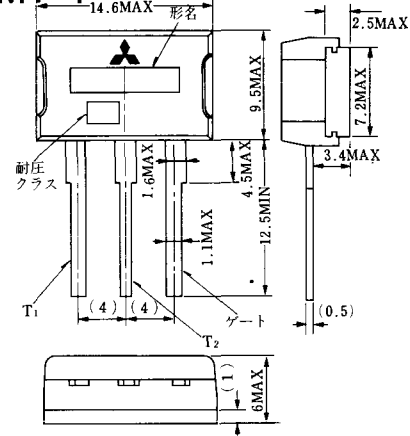
MT-2



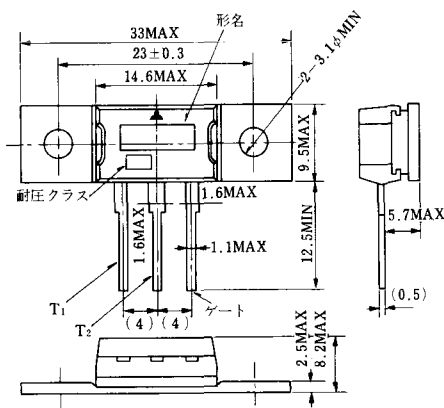
MT-3



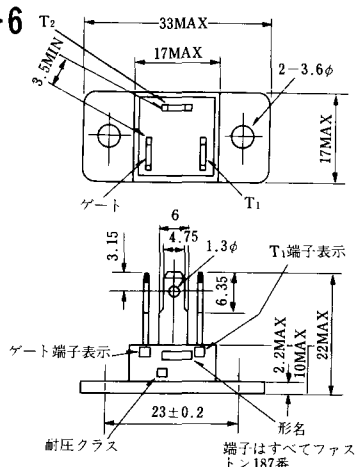
MT-4



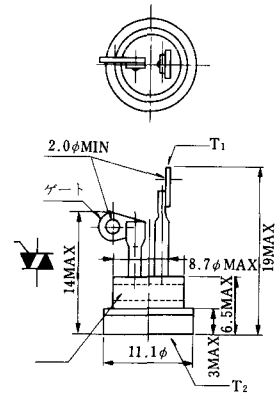
MT-5



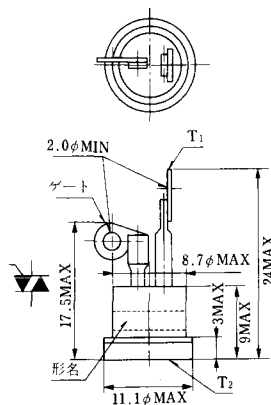
MT-6



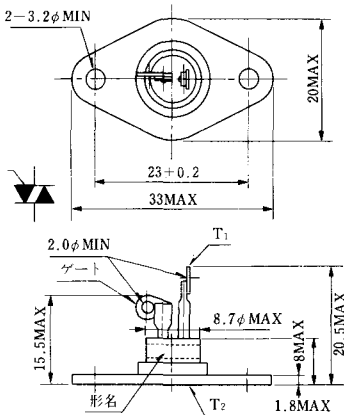
MT-7



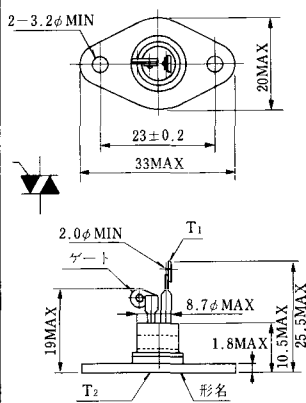
MT-8



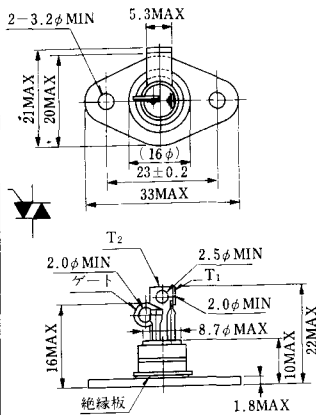
MT-9



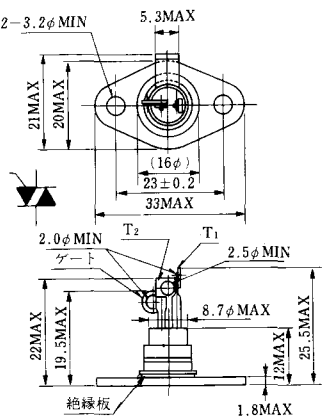
MT-10



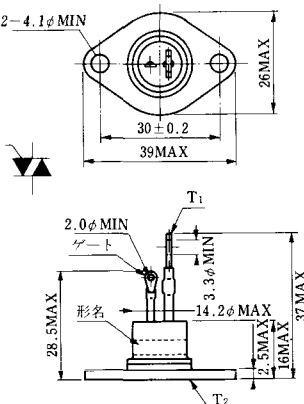
MT-11



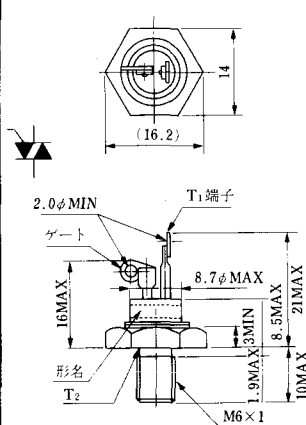
MT-12



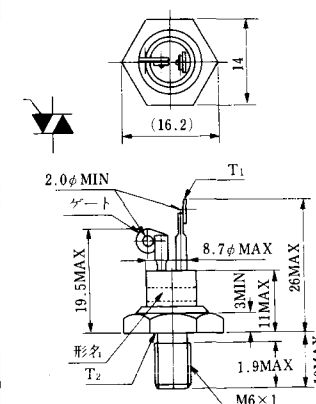
MT-13



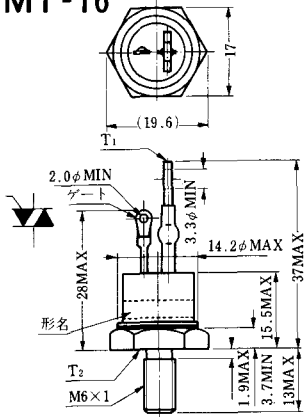
MT-14



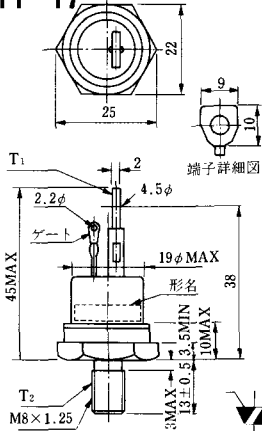
MT-15



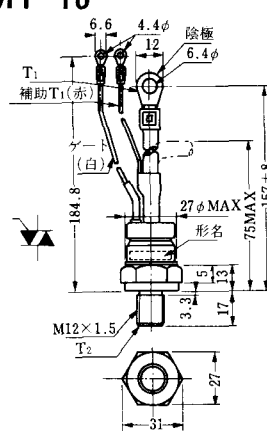
MT-16



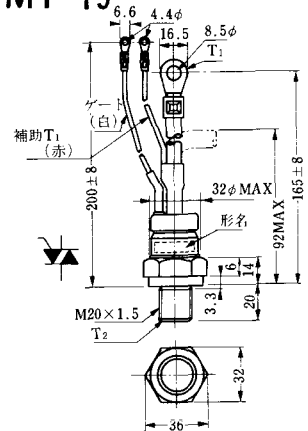
MT-17



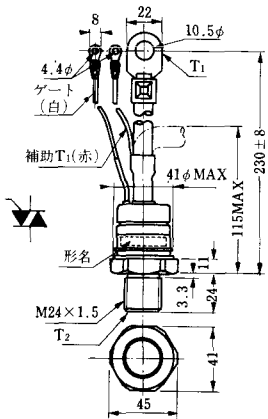
MT-18



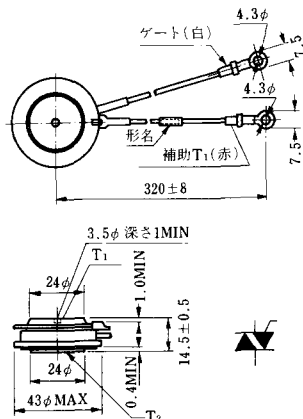
MT-19



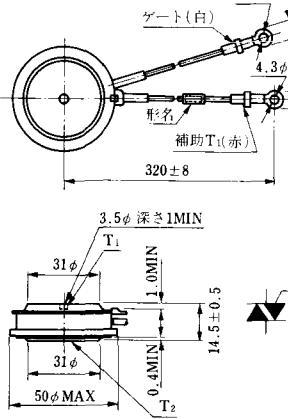
MT-20



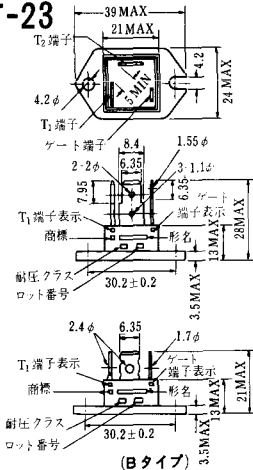
MT-21



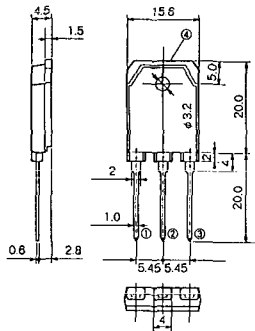
MT-22



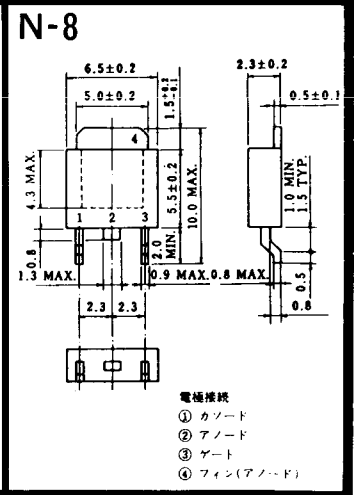
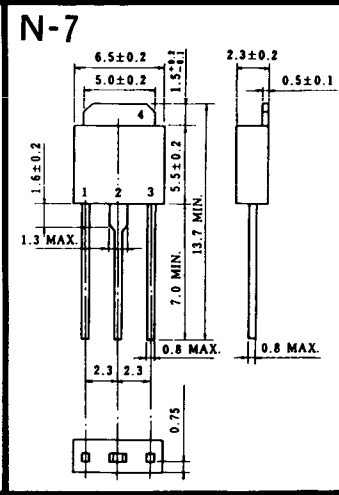
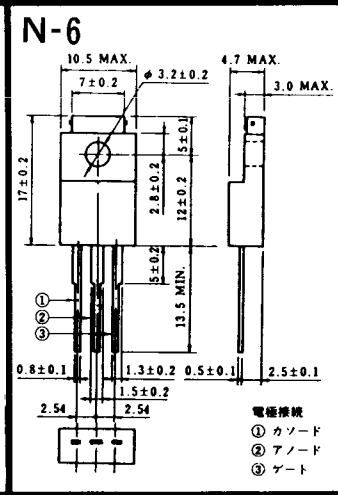
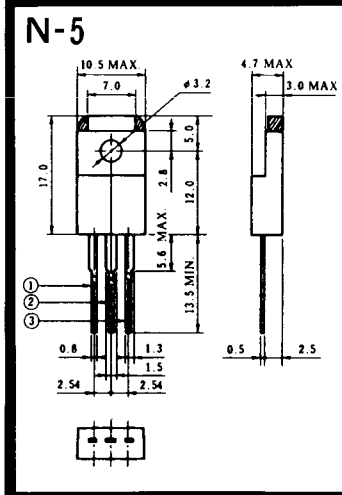
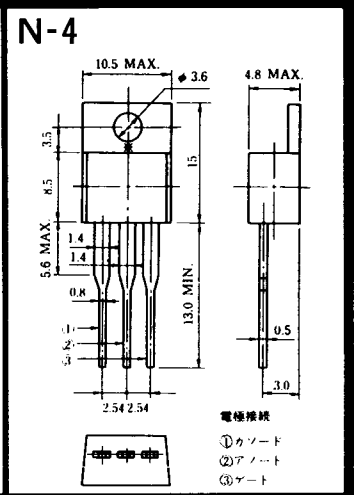
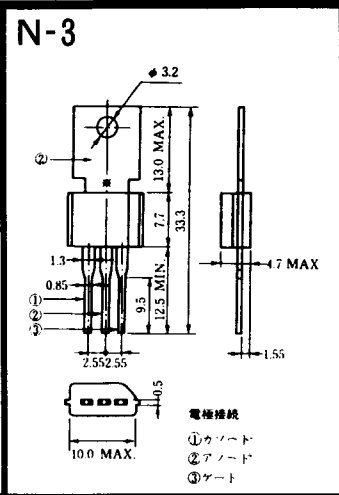
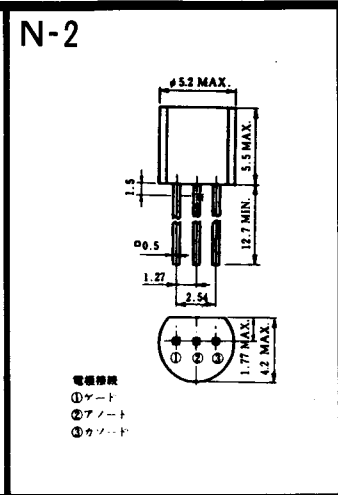
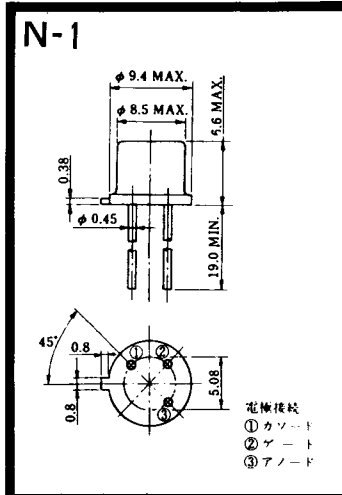
MT-23



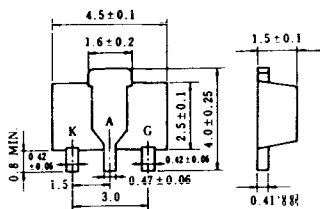
MT-24



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



N-9



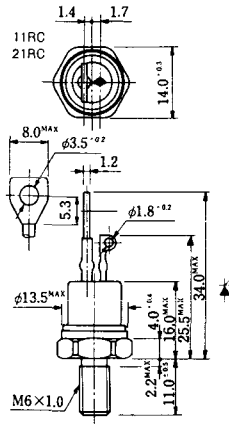
電極接続

K : カソード

A : アノード

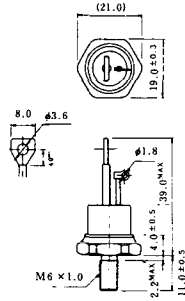
G : ゲート

NI-1



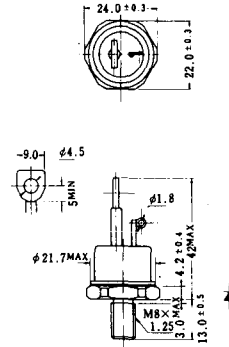
NI-2

29RD



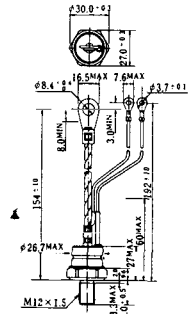
NI-3

39RC
59RC
39RF
59RF



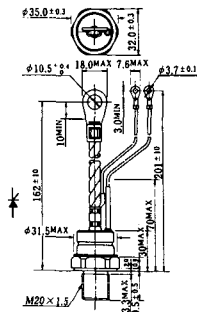
NI-4

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



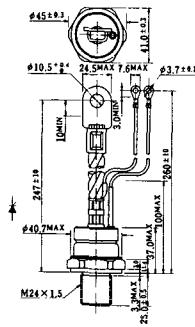
NI-5

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



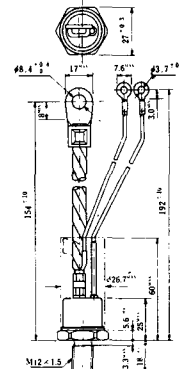
NI-6

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



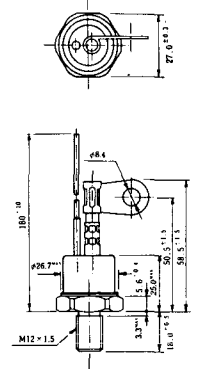
NI-7

89RW_{JL}
129RW_{JL}



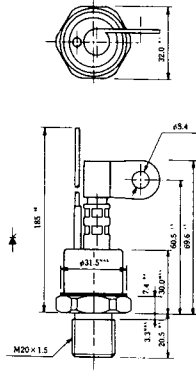
NI-8

89RW
129RW



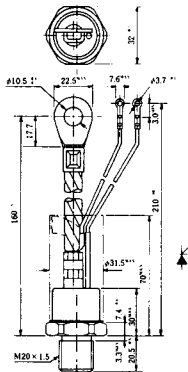
NI-9

259RW
309RW



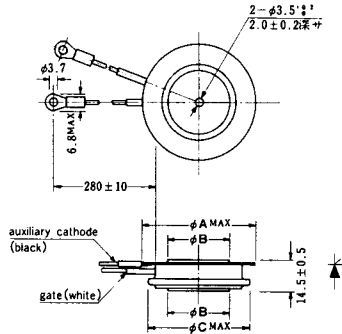
NI-10

259RW_{JL}
309RW_{JL}



NI-11

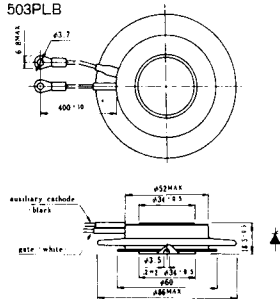
103PA
253PA
503PA
553PA
803PA
103PLE
103PLG
103PLH
203PLG
253PLE
253PLH
353PLG
403PLE
403PLH



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

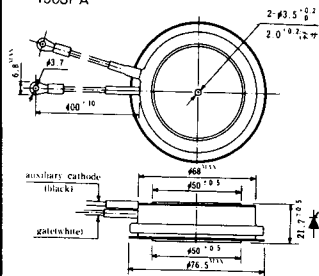
NI-12

403PAB
503PAB
503PLB



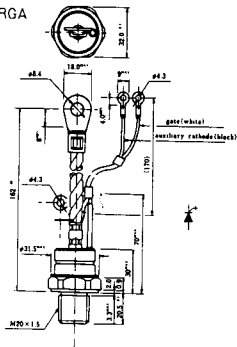
NI-13

1003PA
1003PAB
1003PLF
1003PLH
1503PA



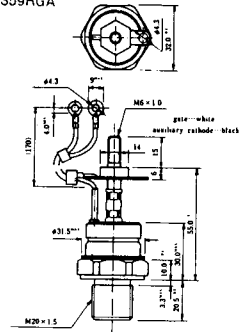
NI-14

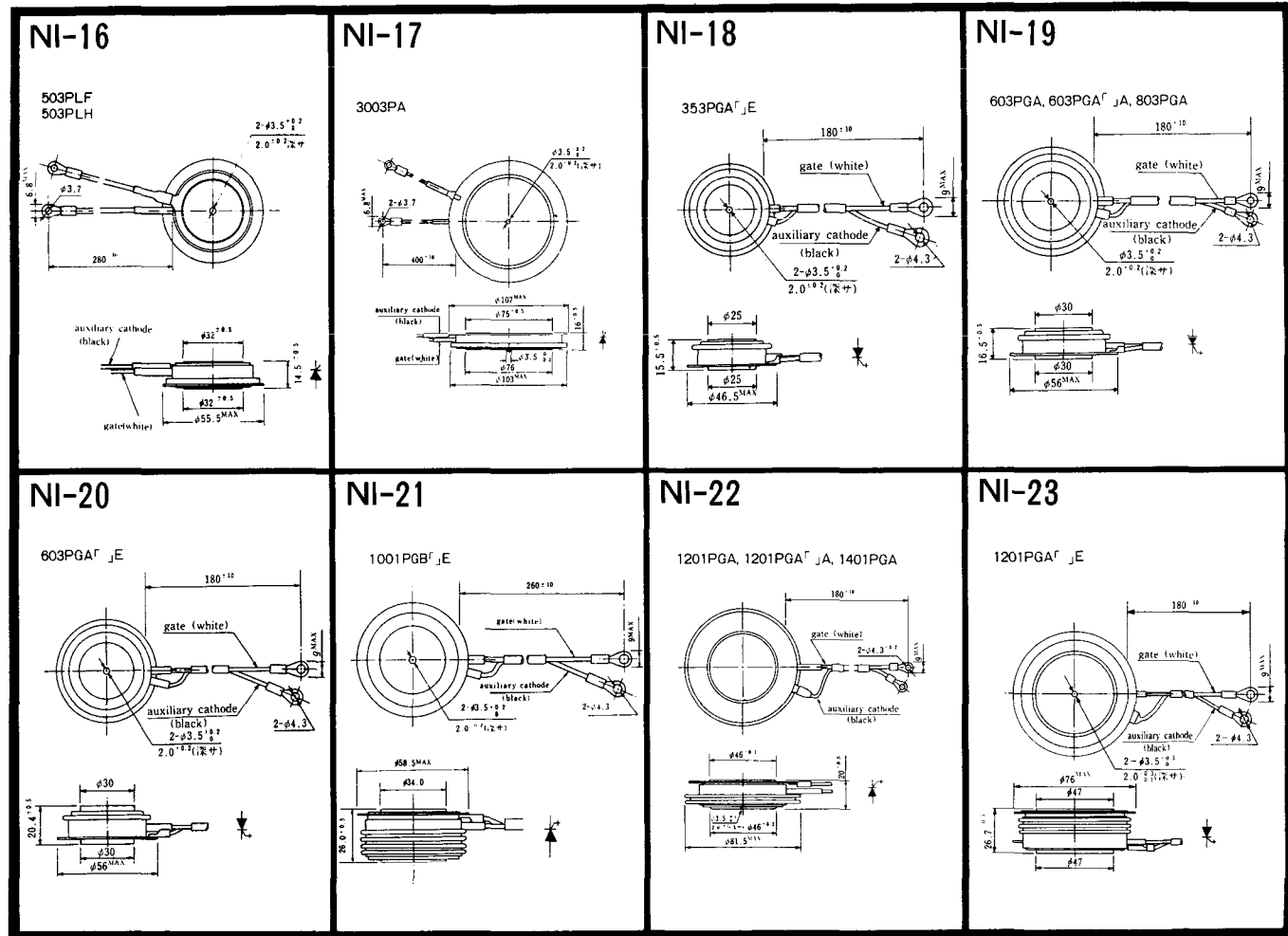
358RGA



NI-15

359RGA





NI-24

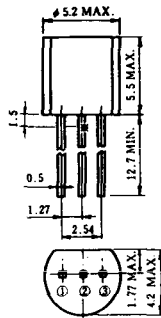
2001PGB^r JE



NI-25

NI-26

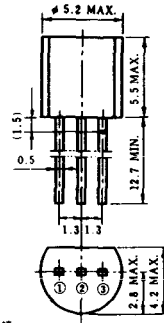
NT-1



電極接続

- ① T₁
- ② ゲート
- ③ T₂

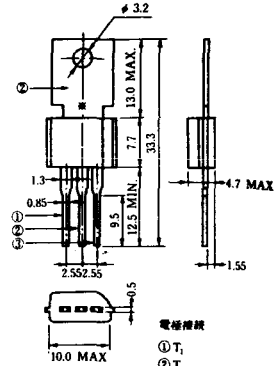
NT-2



電極接続

- ① T₁
- ② ゲート
- ③ T₂

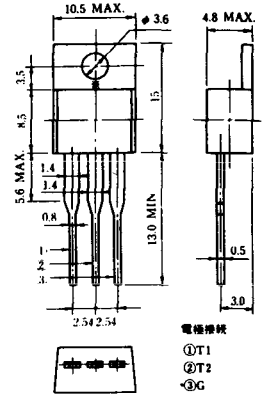
NT-3



電極接続

- ① T₁
- ② T₂
- ③ ゲート

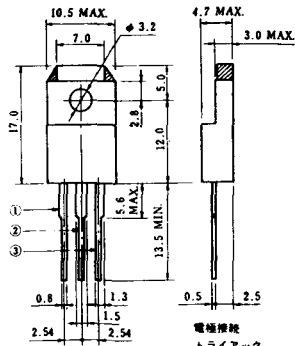
NT-4



電極接続

- ① T₁
- ② T₂
- ③ G

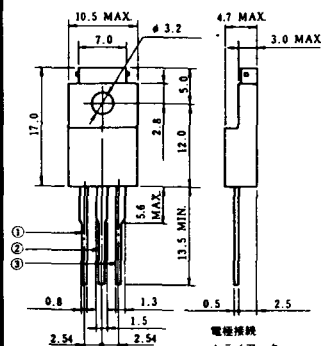
NT-5



電極接続
トライアック

- ① T₁
- ② T₂
- ③ ゲート

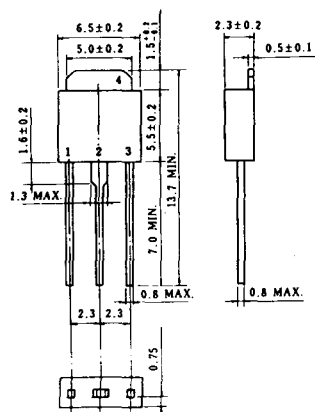
NT-6



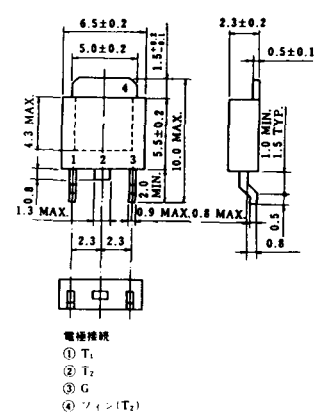
電極接続
トライアック

- ① T₁
- ② T₂
- ③ ゲート

NT-7



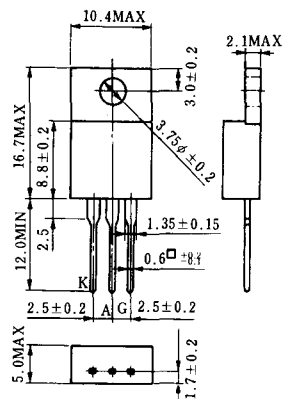
NT-8



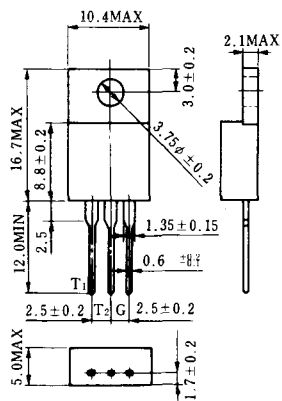
電極接続

- ① T₁
- ② T₂
- ③ G
- ④ シフト(T₂)

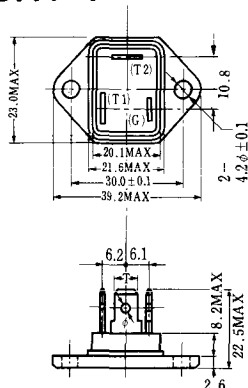
S-1



ST-1

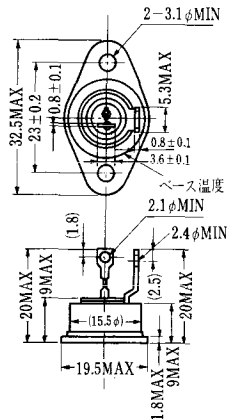


SAT-1

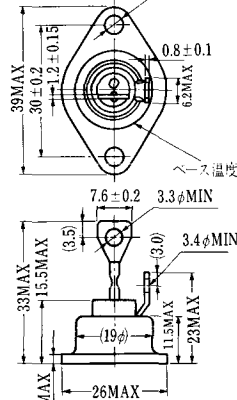


T1 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)
 T2 端子: フラスト > 250 (T=6.35, t=0.8, φ=1.65)
 C 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

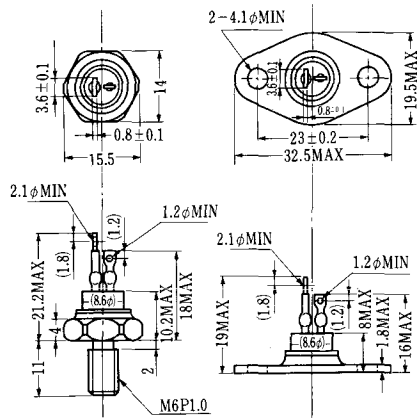
SAT-2



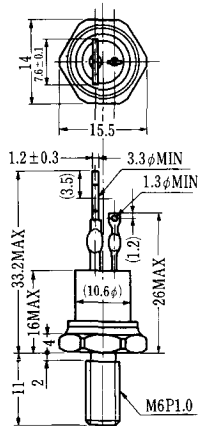
SAT-3



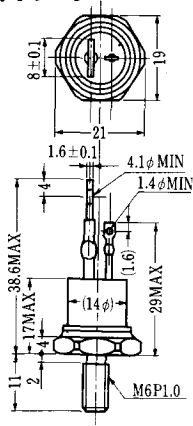
SAT-4



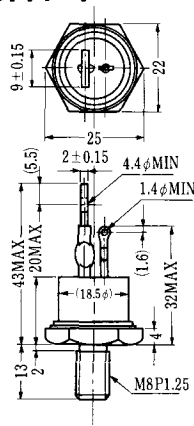
SAT-5



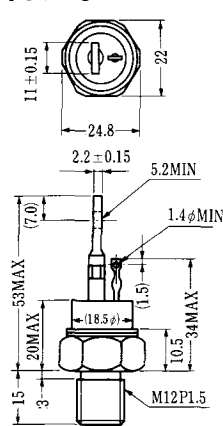
SAT-6



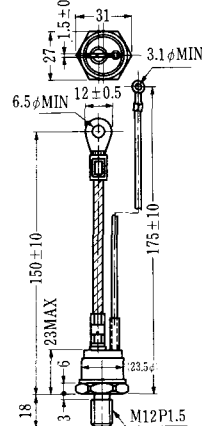
SAT-7



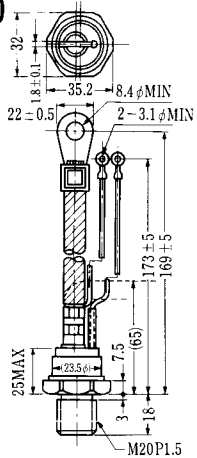
SAT-8



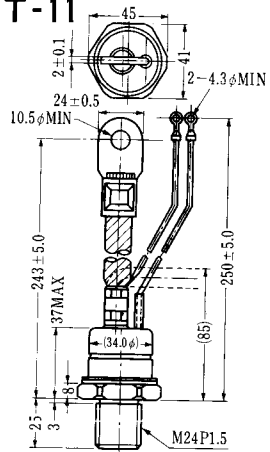
SAT-9



SAT-10



SAT-11

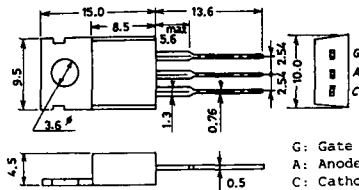


SY-1 (1096A)



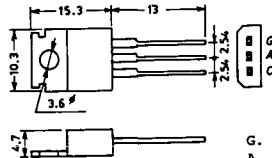
C: Cathode
A: Anode
G: Gate

SY-2 (1151)



G: Gate
A: Anode
C: Cathode

SY-3 (1104)



G: Gate
A: Anode
C: Cathode

SY-4 (1150)



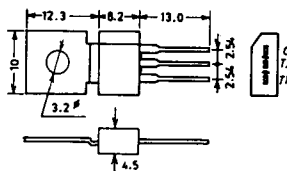
G: Gate
A: Anode
C: Cathode

1097A



G: Gate

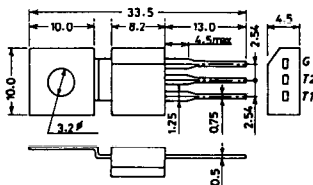
1102



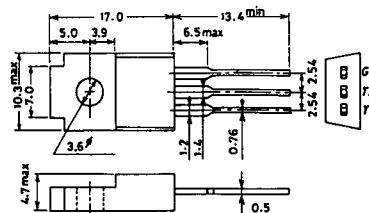
1141



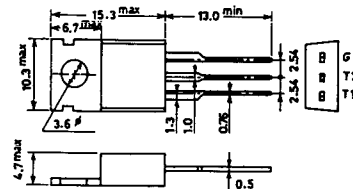
1142



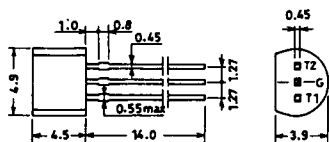
1144



1155

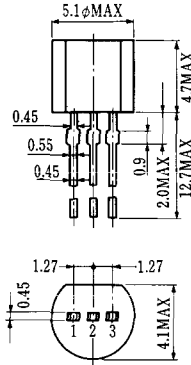


1192A



G: Gate

T-1 (13-5A1A)



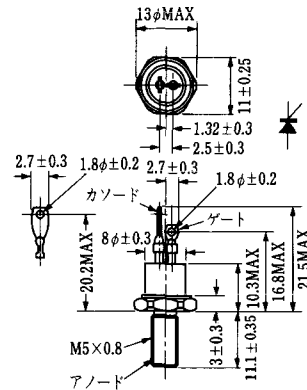
- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



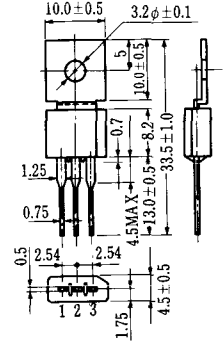
1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)



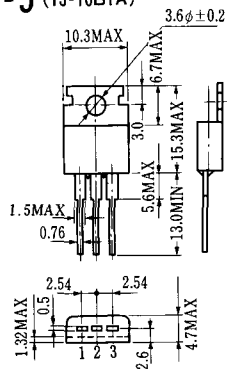
カソード
ゲート
アノード

T-4 (13-10A1A)



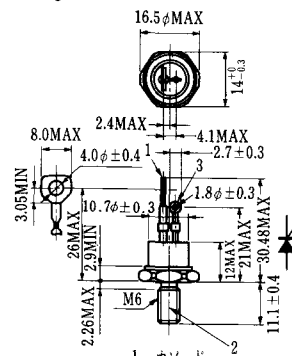
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



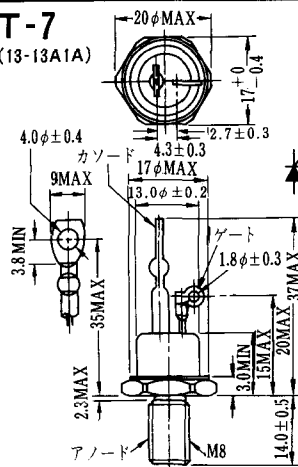
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



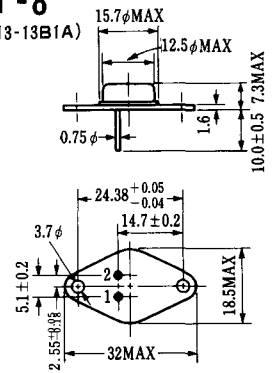
- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)



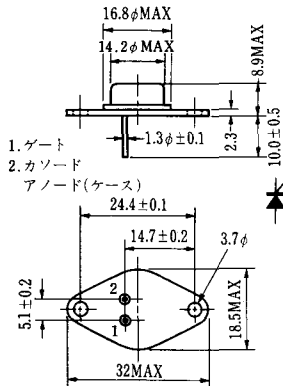
カソード
ゲート
アノード

T-8 (13-13B1A)



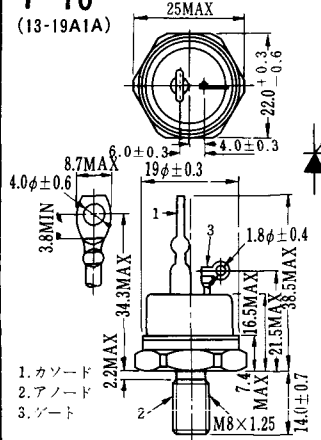
1. ゲート
2. カソード
3. アノード(ケース)

T-9 (13-14A1A)



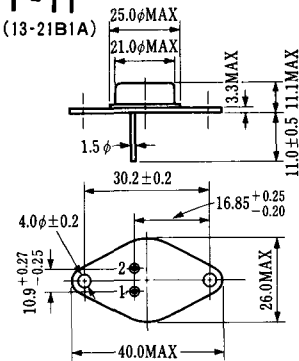
1. ゲート
2. カソード
- アノード(ケース)

T-10 (13-19A1A)



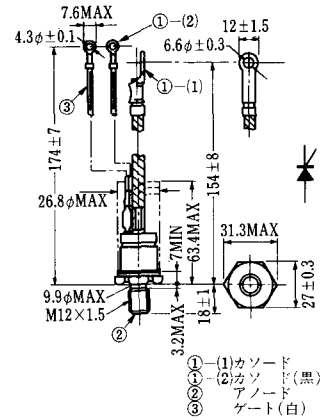
1. カソード
2. アノード
3. ゲート

T-11 (13-21B1A)



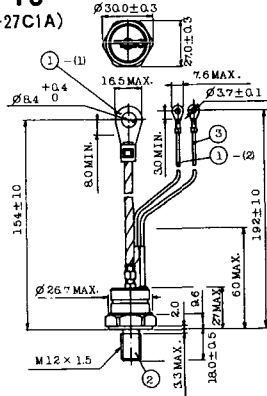
1. ゲート
2. カソード
- アノード(ケース)

T-12 (13-27B1B)



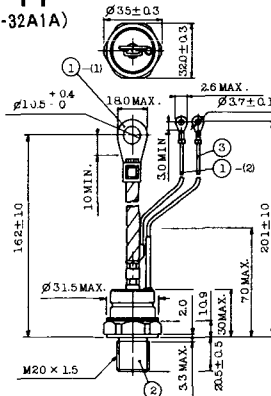
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-13 (13-27C1A)



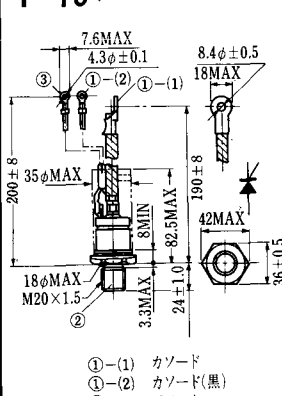
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-14 (13-32A1A)



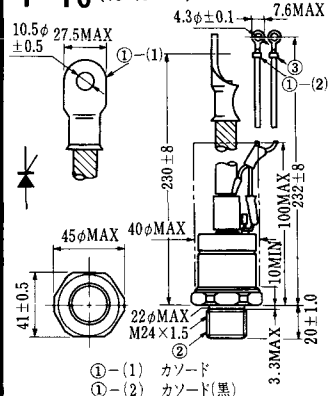
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-15 (13-35C1B)



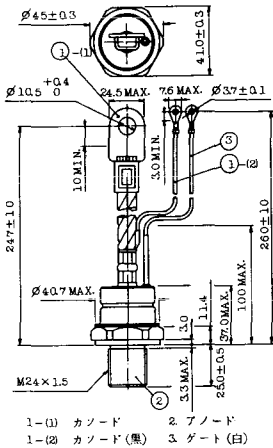
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-16 (13-40B1A)

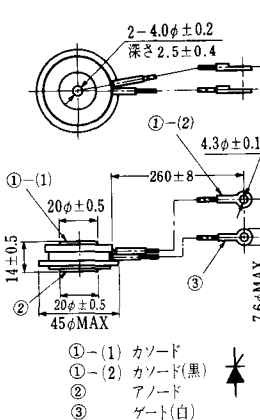


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

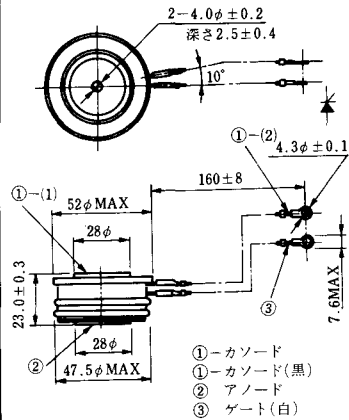
T-17 (13-42A1A)



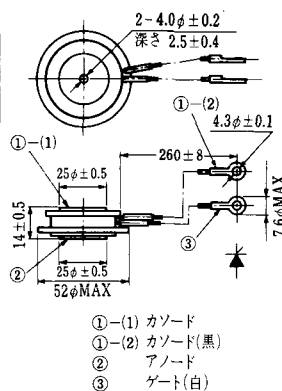
T-18 (13-45D1A)



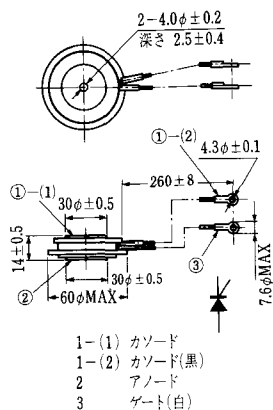
T-19 (13-52B1A)



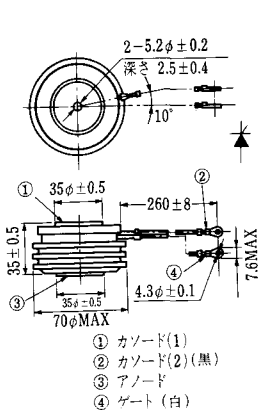
T-20 (13-52C1A)



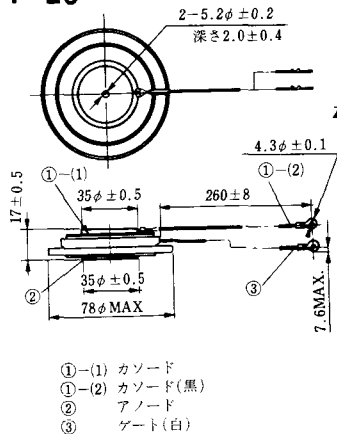
T-21 (13-60A1A)



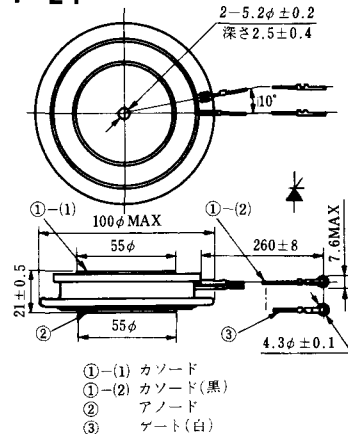
T-22 (13-70C1A)



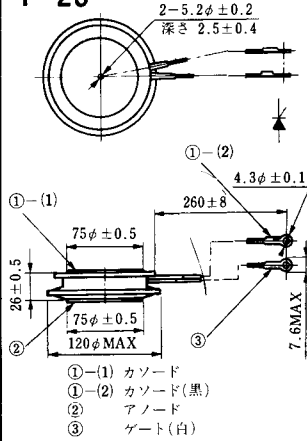
T-23 (13-78A1A)



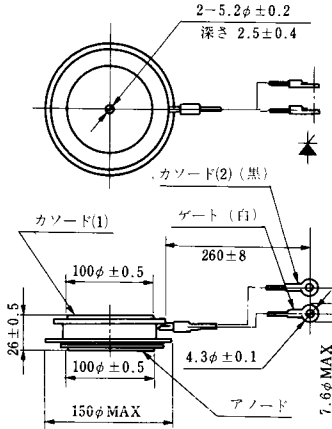
T-24 (13-100C1A)



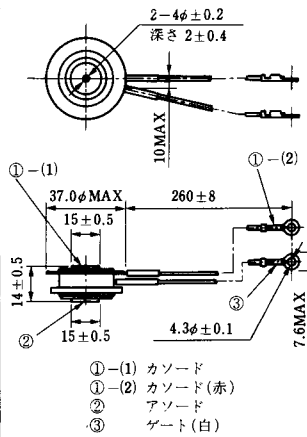
T-25 (13-120A2A)



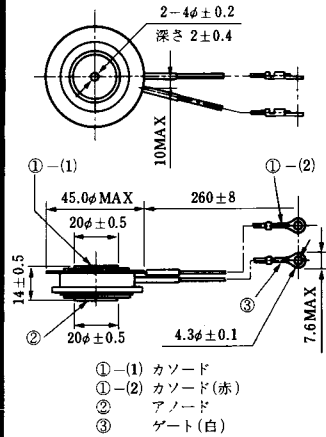
T-26 (13-150A1A)



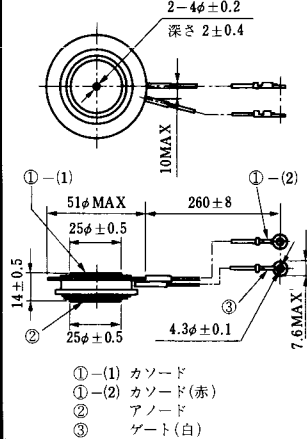
T-27 (13-37A1A)



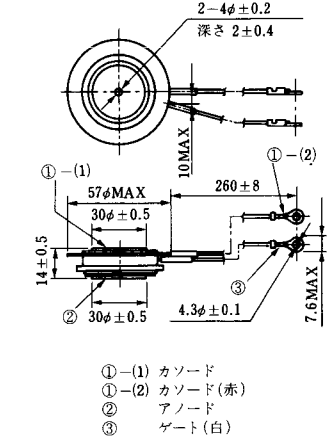
T-28 (13-45E1A)



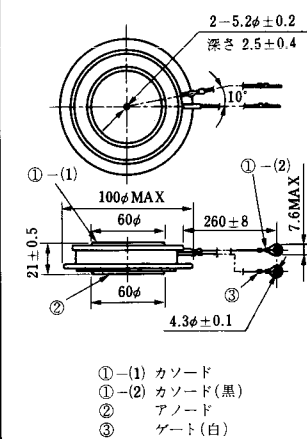
T-29 (13-51A1A)



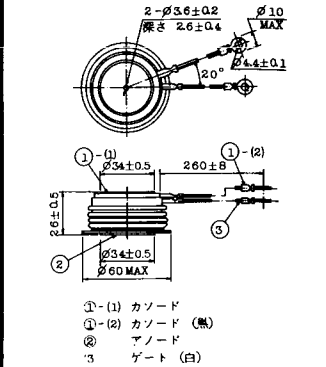
T-30 (13-57A1A)



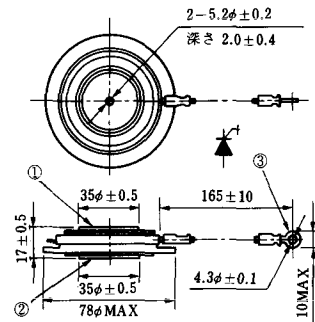
T-31 (13-100E1A)



T-32 (13-60E3A)

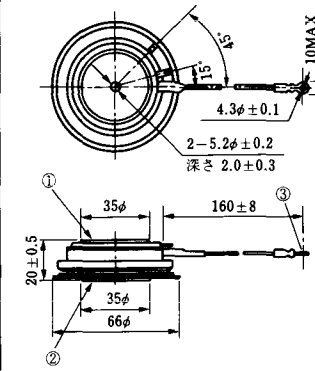


T-33 (13-78B1A)



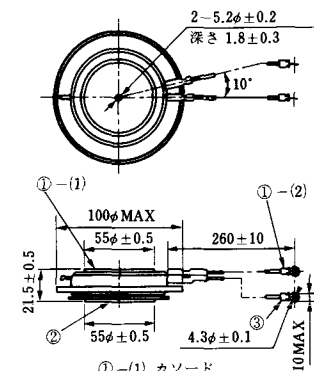
- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



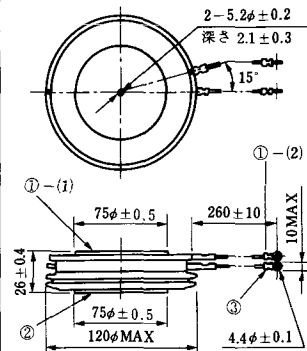
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



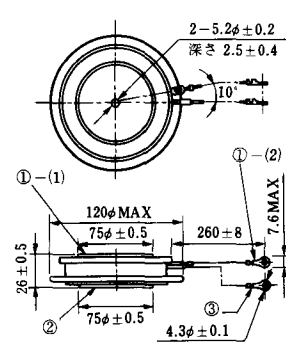
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



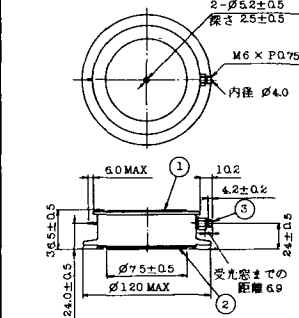
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



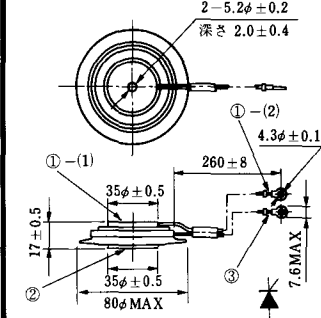
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



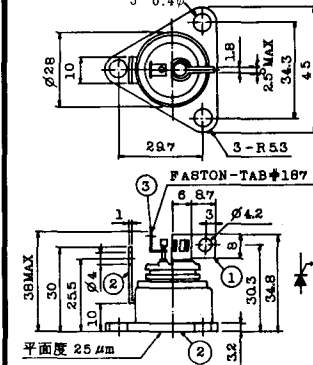
- ① カソード
- ② アノード
- ③ ゲート

T-39 (13-80B1A)



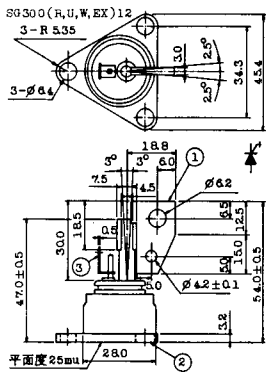
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-40 (13-28A1A)



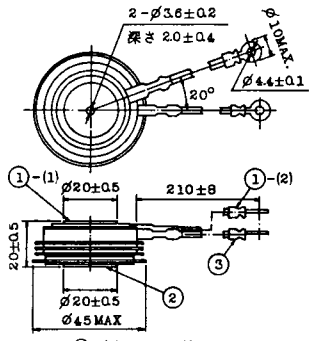
- 1. カソード
- 2. アノード
- 3. ゲート

T-41 (13-28A2A)



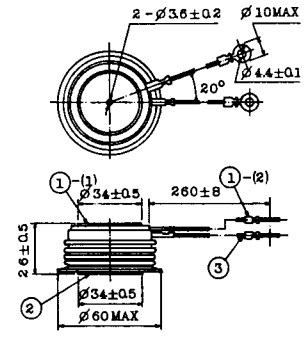
- 1 カソード
- 2 アノード
- 3 ゲート

T-42 (13-45F1A)



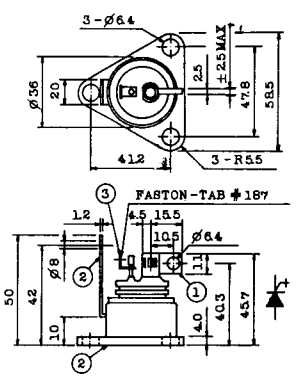
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-43 (13-60E2A)



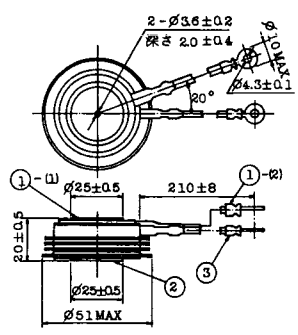
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-44 (13-36A1A)



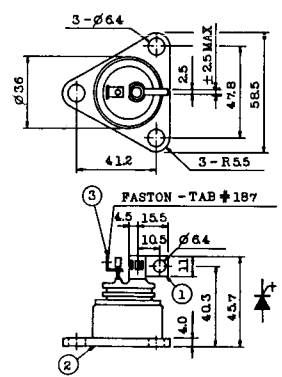
- 1 カソード
- 2 アノード
- 3 ゲート

T-45 (13-51B1A)



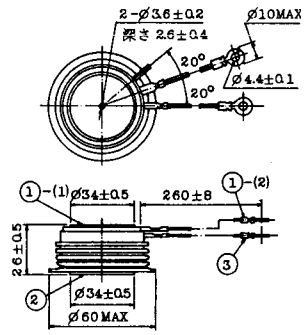
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-46 (13-36B1A)



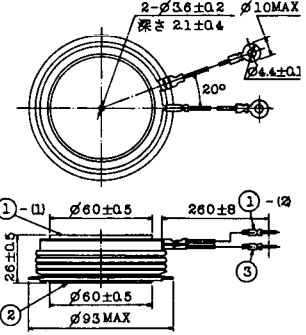
- 1 カソード
- 2 アノード
- 3 ゲート

T-47 (13-60E1A)



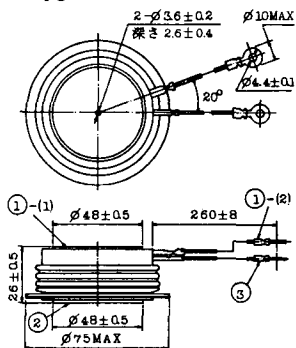
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-48 (13-93C1A)



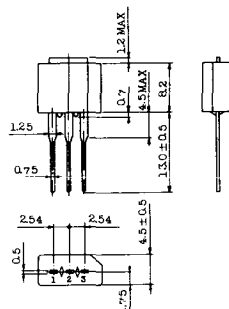
- ①-(1) カソード
- ①-(2) カソード(黒色)
- ② アノード
- ③ ゲート(白色)

T-49 (13-75A1A)



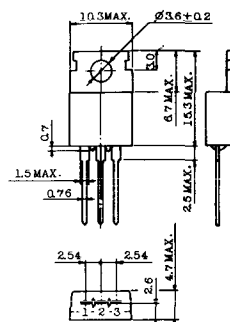
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

T-50 (13-10A3A)



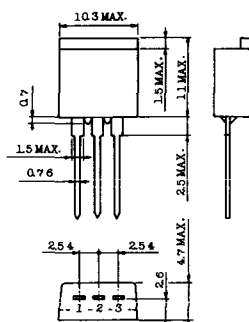
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



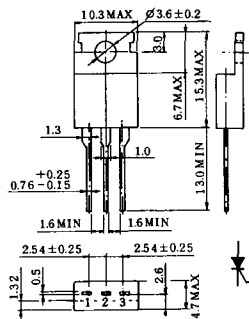
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



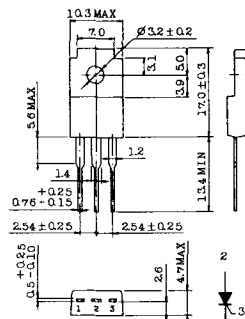
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



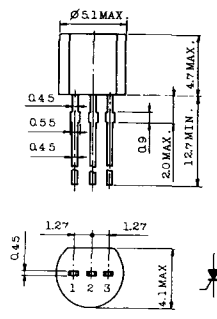
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



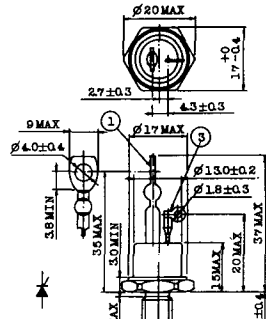
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



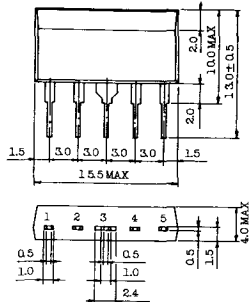
- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



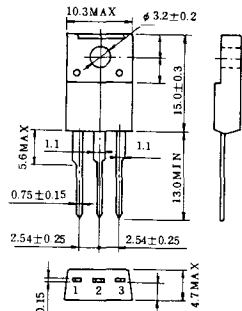
- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



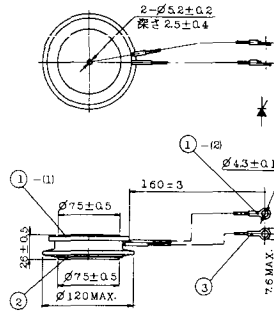
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



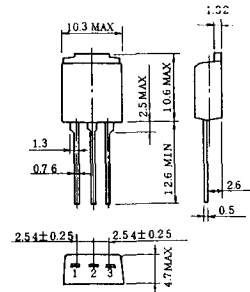
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



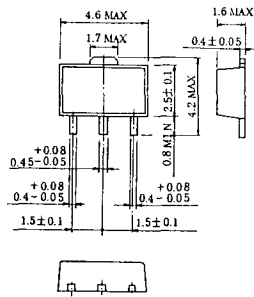
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

T-60



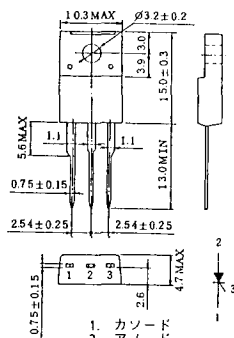
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



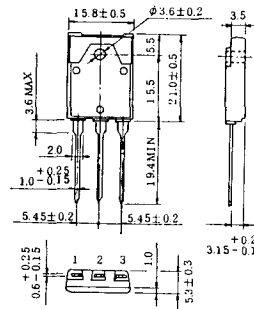
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



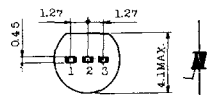
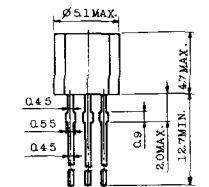
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



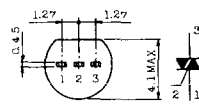
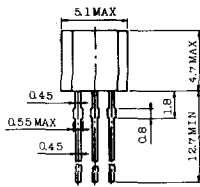
1. カソード
2. アノード
3. ゲート

TT-1



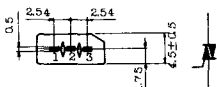
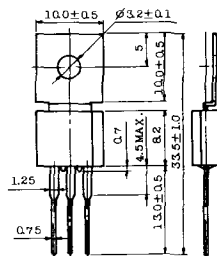
- 1 ゲート
- 2 T₂
- 3 T₁

TT-2



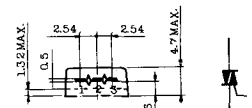
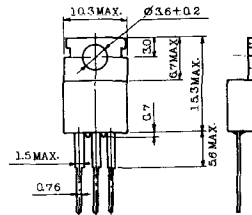
- 1 T₁
- 2 ゲート
- 3 T₂

TT-3



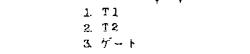
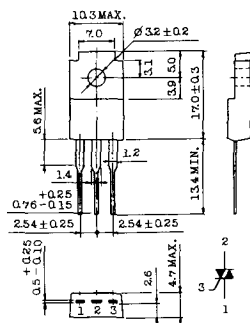
- 1 T₁
- 2 T₂
- 3 ゲート

TT-4



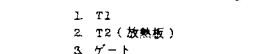
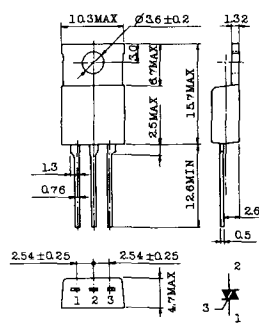
- 1 T₁
- 2 T₂
- 3 ゲート

TT-5



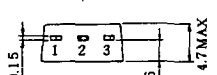
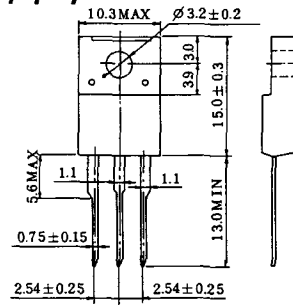
- 1 T₁
- 2 T₂
- 3 ゲート

TT-6



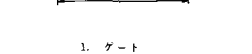
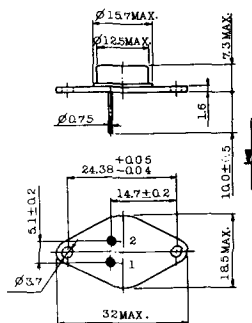
- 1 T₁
- 2 T₂ (放熱板)
- 3 ゲート

TT-7



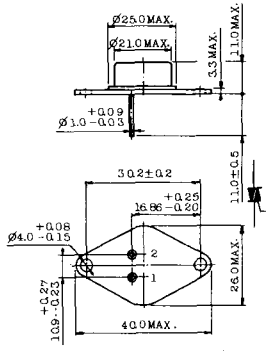
- 1 T₁
- 2 T₂
- 3 ゲート

TT-8



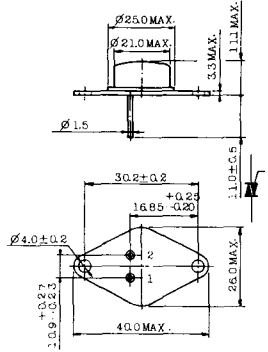
- 1 ゲート
- 2 T₁
- T₂ (ケース)

TT-9



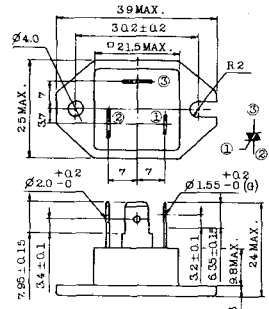
- 1. ゲート
- 2. T₁
- 3. T₂ (ケース)

TT-10



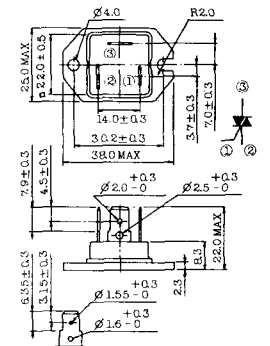
- 1. ゲート
- 2. T₁
- 3. T₂ (ケース)

TT-11



- 1. ゲート (フーストン端子 #187)
- 2. T₁ (" #250)
- 3. T₂ (" #250)

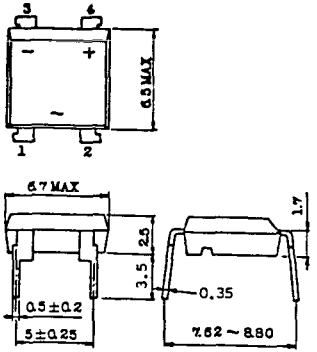
TT-12



ゲート端子詳細

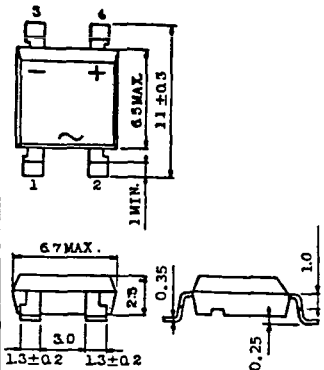
- ① ゲート (フーストン端子 #187)
- ② T₁ (" #250)
- ③ T₂ (" #250)

TT-13



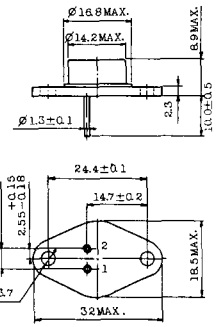
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-14



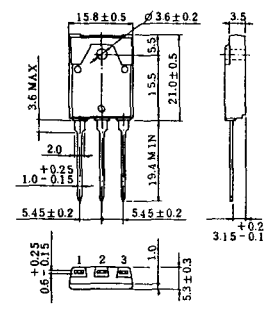
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-15 (13-14A1B)



- 1. ゲート
- 2. T₁
- T₂ (ケース)

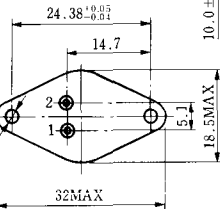
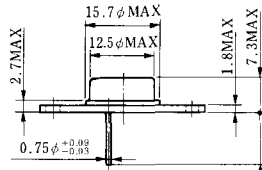
TT-16 (13-16A1A)



- 1. T₁
- 2. T₂
- 3. ゲート



TS-8

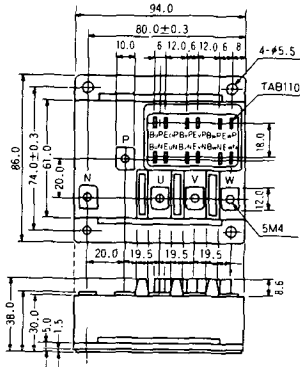


- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

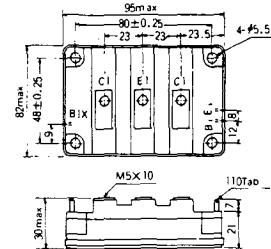
S-94B2A



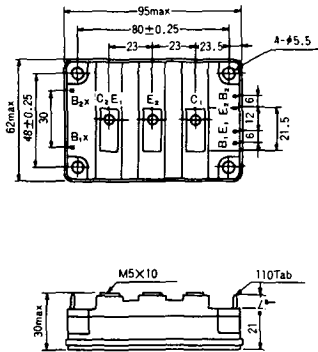
S-94D1A



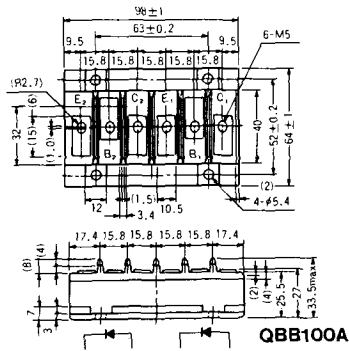
S-95A1A



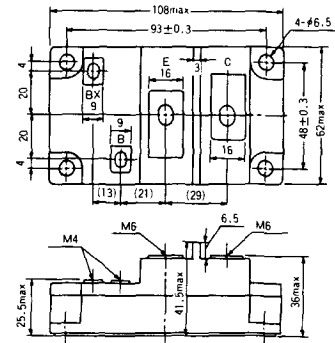
S-95B1A



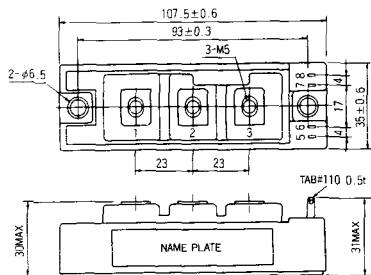
S-98B1B



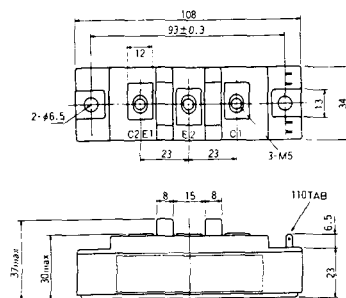
S-108A2A



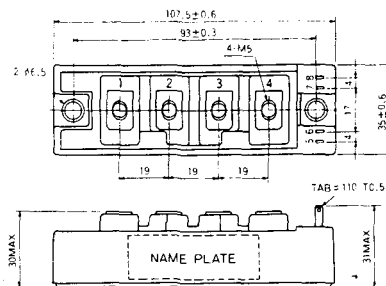
S-108B1A



S-108B1B



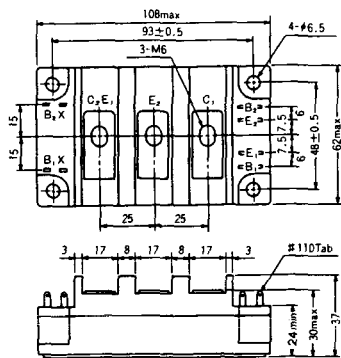
S-108B1C



S-108B2A



S-108B2B



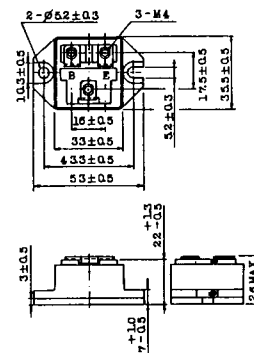
2-22B1A



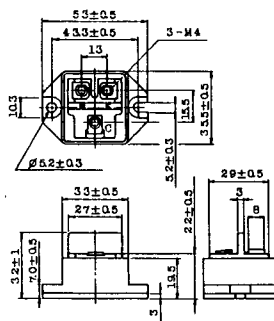
2-27A4A



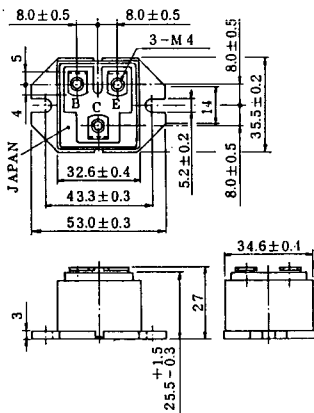
2-33C1A



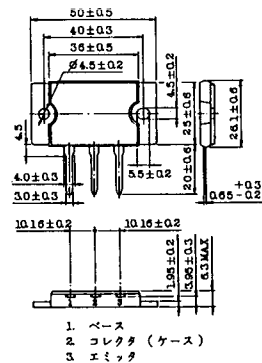
2-33D1A



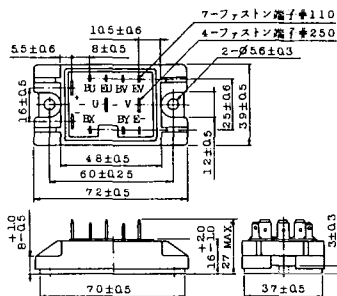
2-33F1A



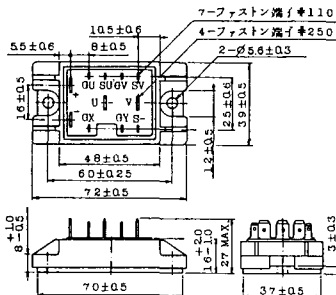
2-37A1A



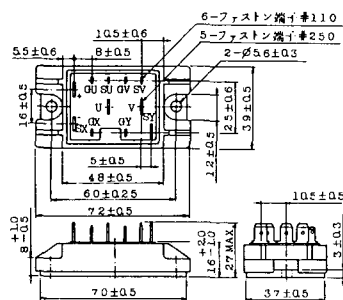
2-48A3A



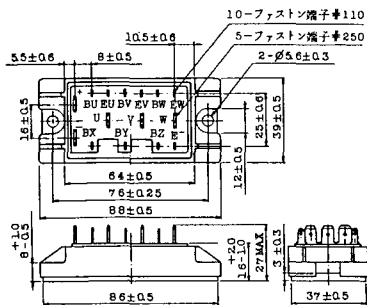
2-48A3B



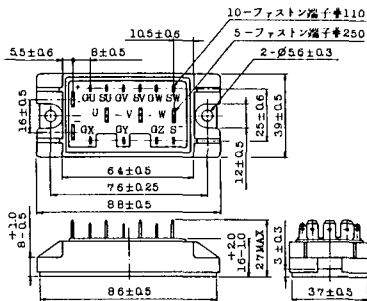
2-48A4A



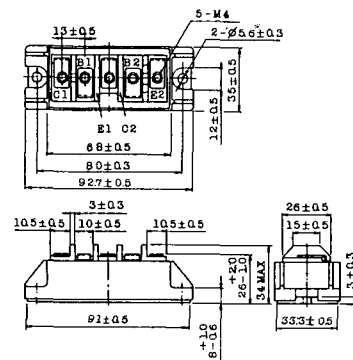
2-64A2A



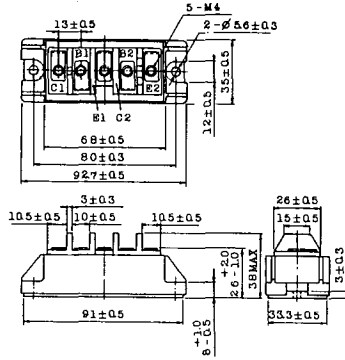
2-64A2B



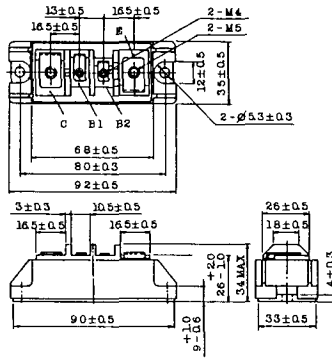
2-68A2A



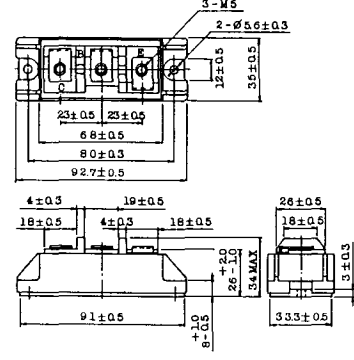
2-68B2A



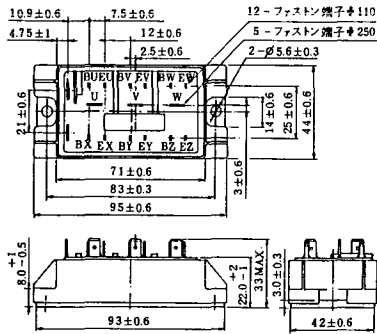
2-68C1A



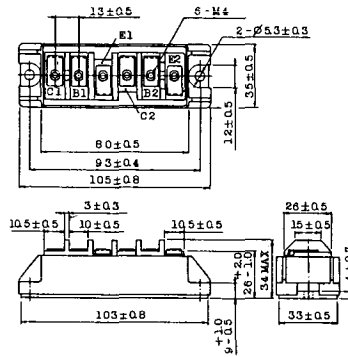
2-68D2A



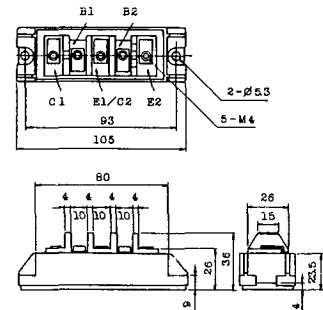
2-72A3A



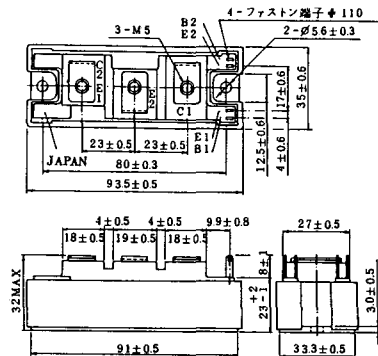
2-80A1A



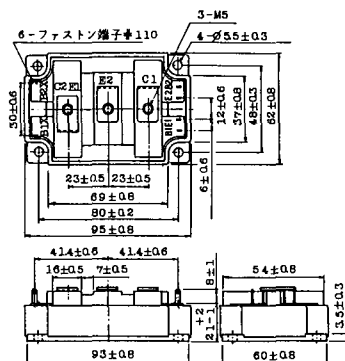
2-80B1A



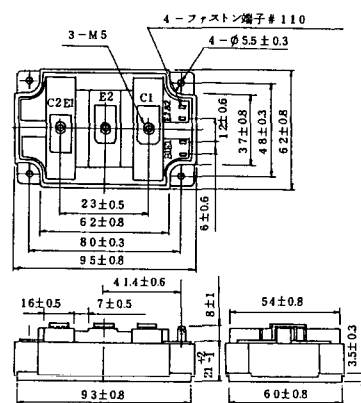
2-94D1A



2-96A3A



2-96A4A



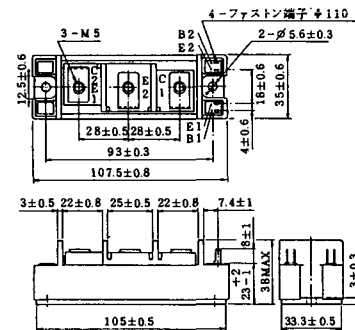
2-98B1A



2-98C2A



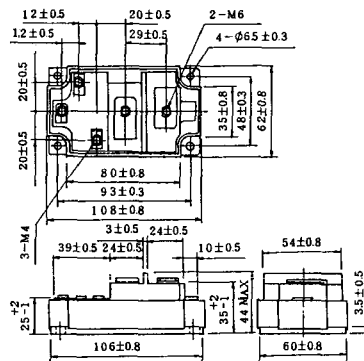
2-108A2A



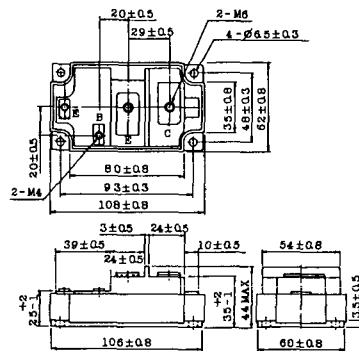
2-108B1A



2-109A3A



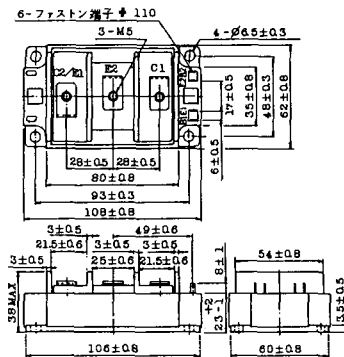
2-109A4A



2-109B3A

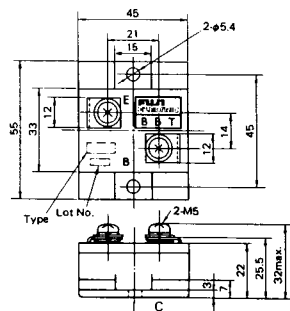


2-109B4A



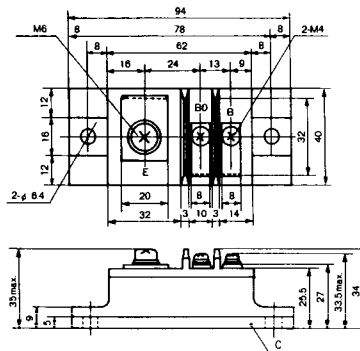
BBT-II

BBTII
1D200A-020



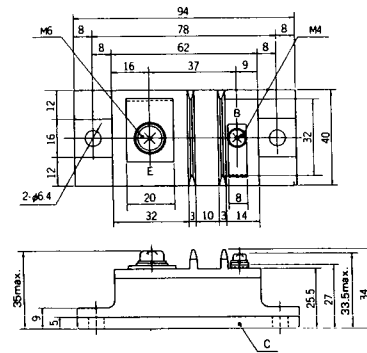
BBT-III

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



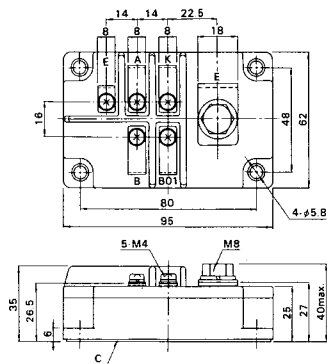
BBT-III

BBTIII
ETN01-055
ET1257

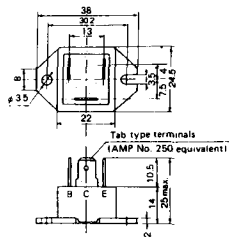


BBT-IV

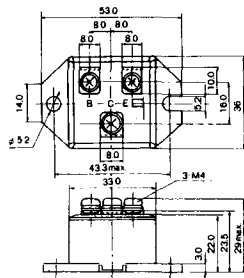
BBTIV
1D500A-030



M-101



M-102



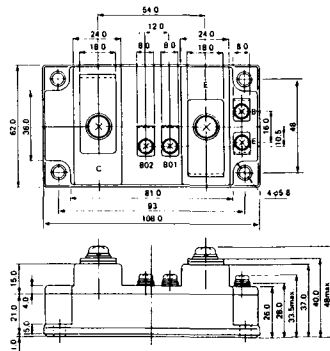
M-103



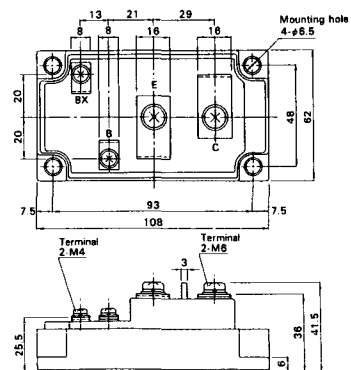
M-104



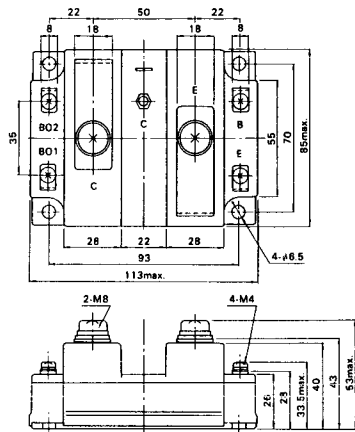
M-105



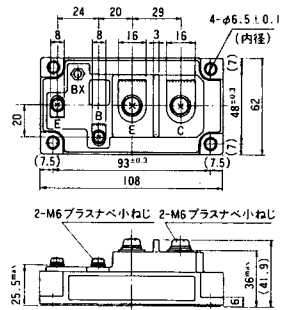
M-106



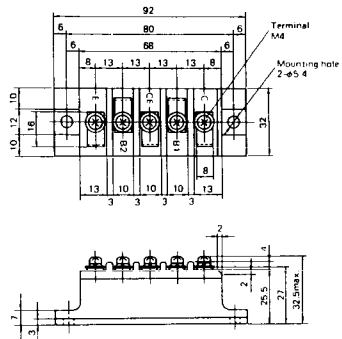
M-107



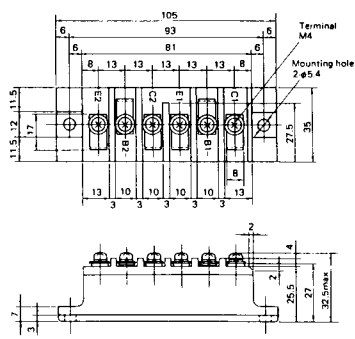
M-116



M-201



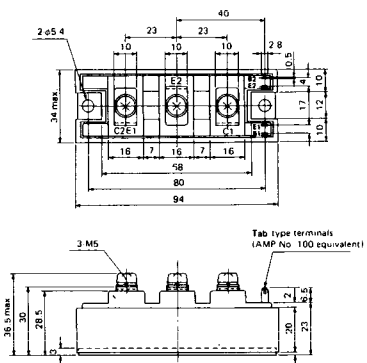
M-202



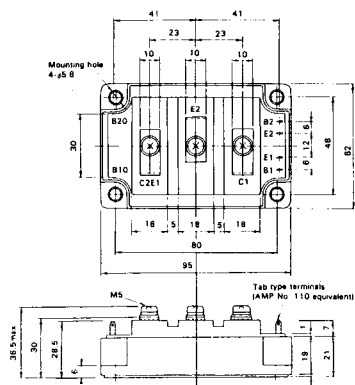
M-203



M-204



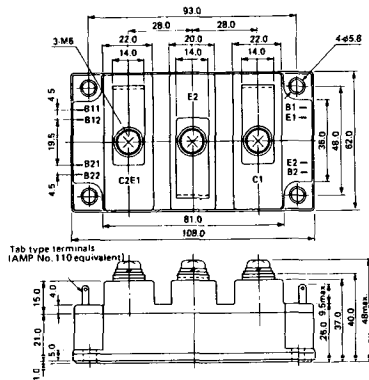
M-205



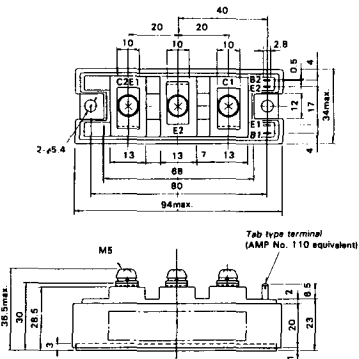
M-206



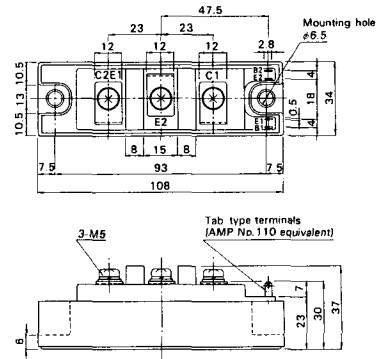
M-207



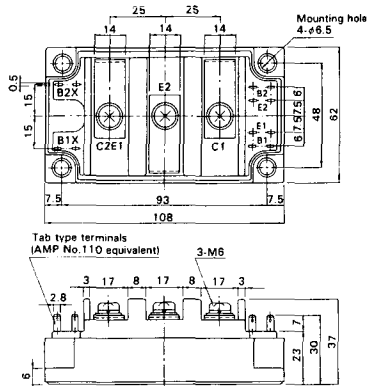
M-208



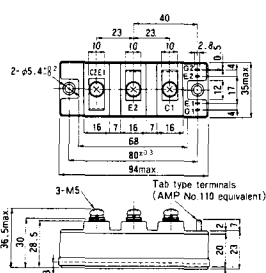
M-209



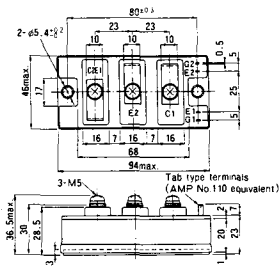
M-210



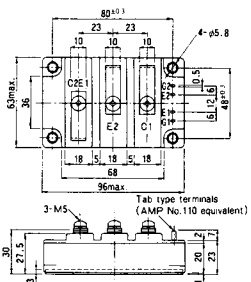
M-211



M-212

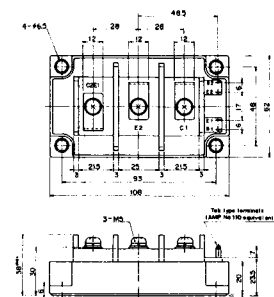


M-213

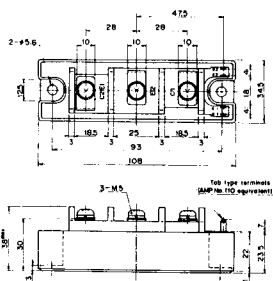


M-214

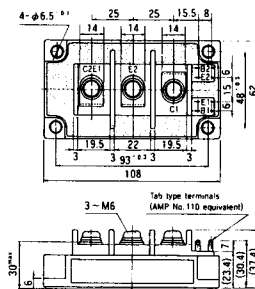
M-215



M-216



M-217



M-218



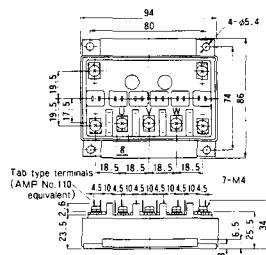
M-219



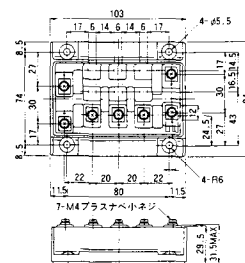
M-607



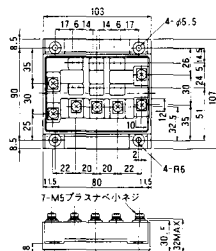
M-608



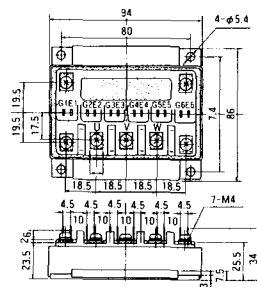
M-609



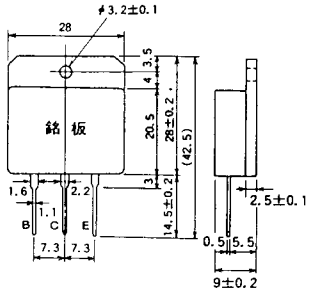
M-610



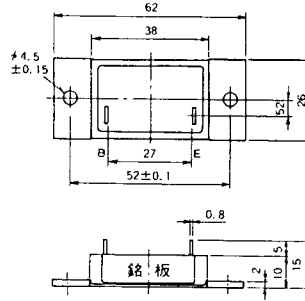
M-616



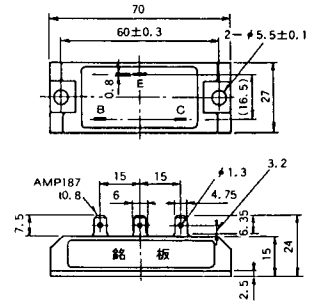
M-1A1A



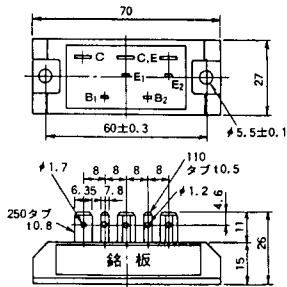
M-2A1A



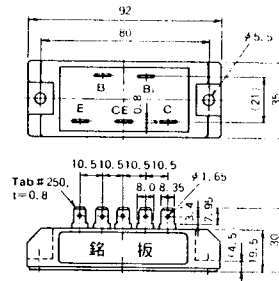
M-2B1A



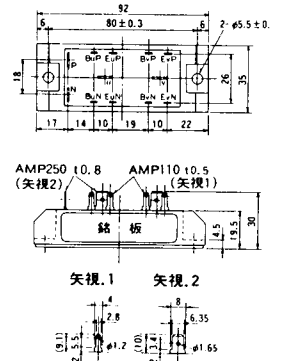
M-2B2A



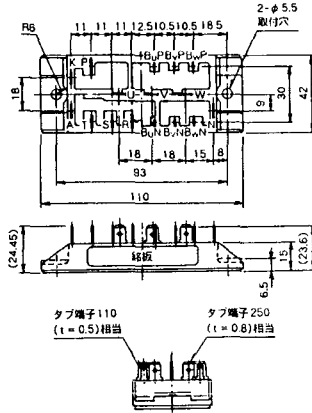
M-2C2A



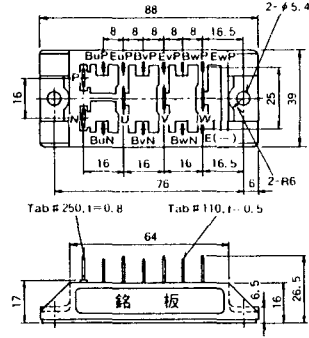
M-2D4A



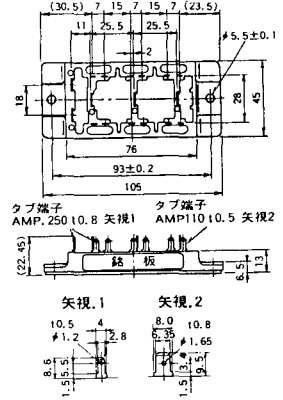
M-2E6A



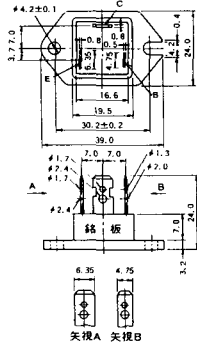
M-2F6A



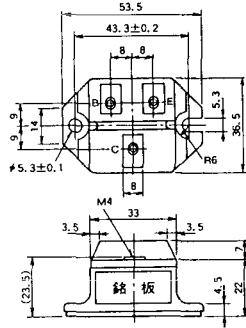
M-2G6A



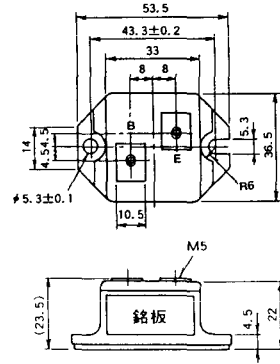
M-3A1A



M-3B1A



M-3B1B



M-3C1A



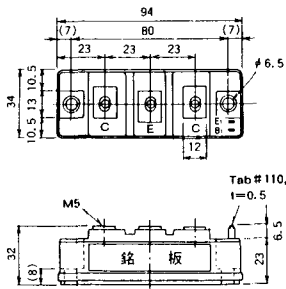
M-3D6A



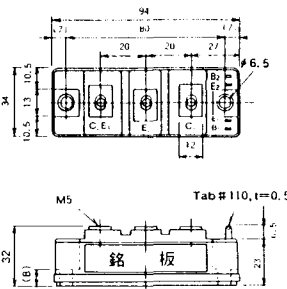
M-3E6A



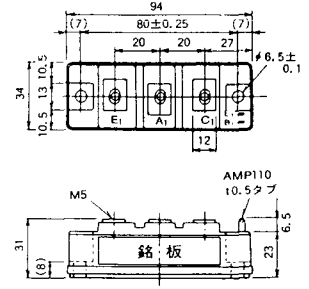
M-4A1A



M-4A2A



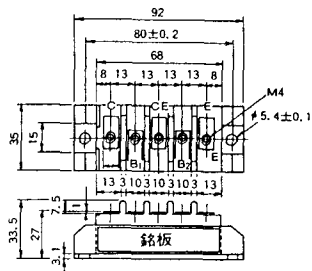
M-4A1B



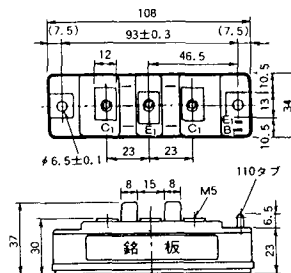
M-4A2B



M-4B2A



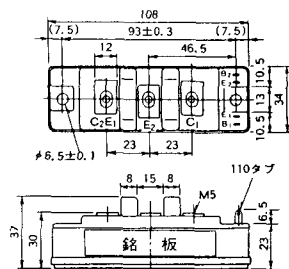
M-5A1A



M-5A1B



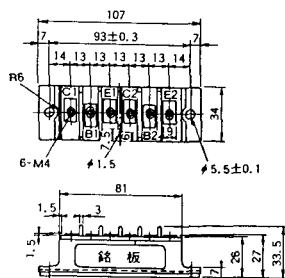
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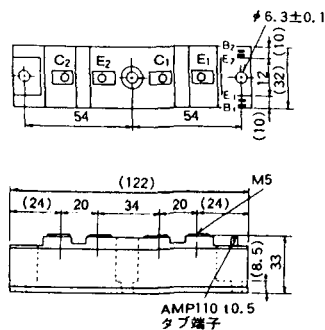
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M-5C2A



M-5D2A



M-6A1A



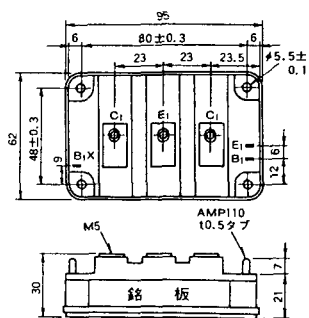
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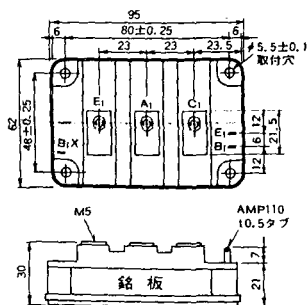
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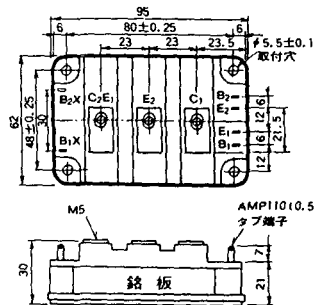
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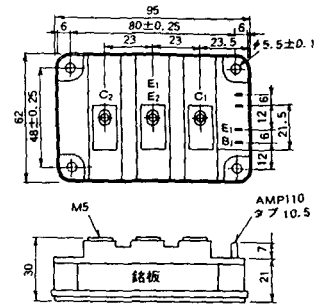
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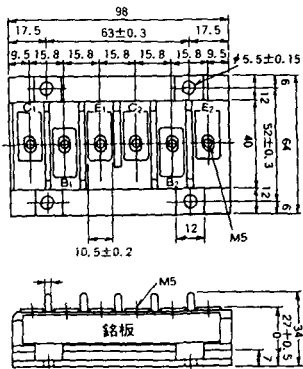
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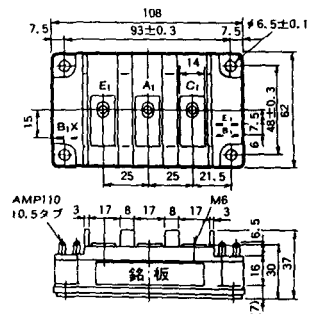
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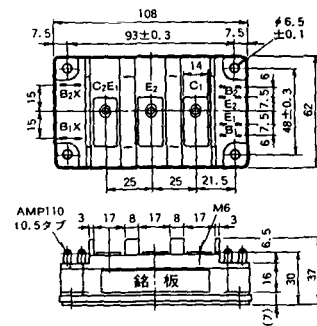
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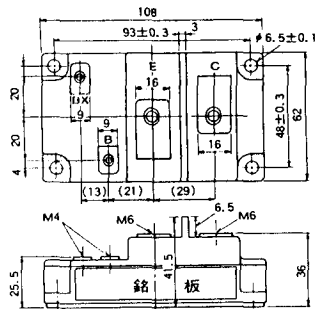
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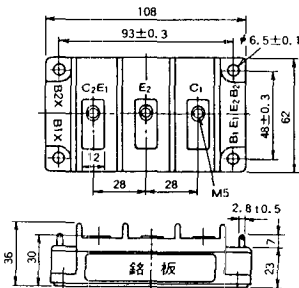
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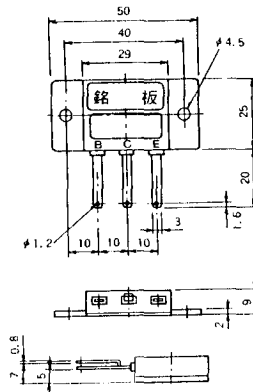
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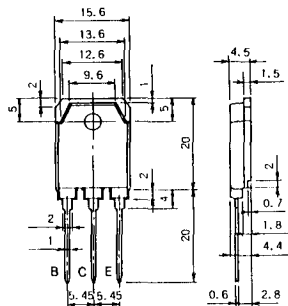
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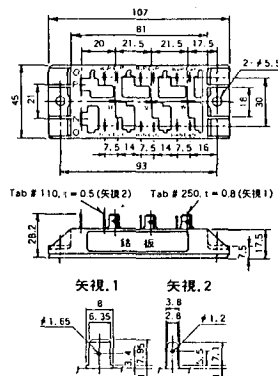
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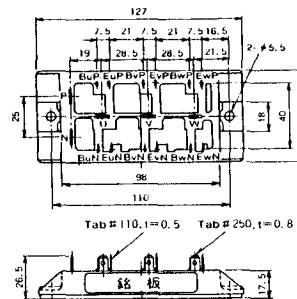
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M-2E6B



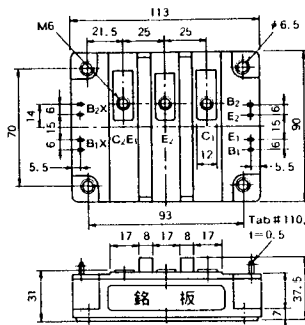
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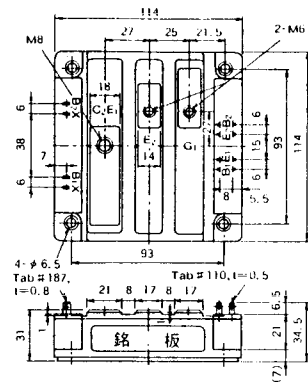
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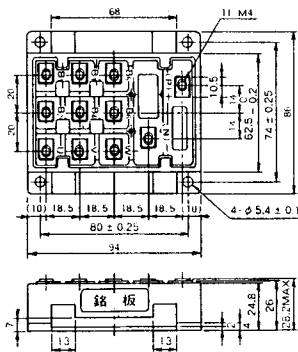
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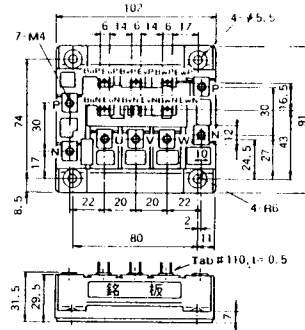
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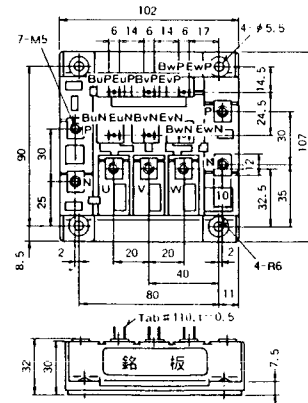
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M-12B6A



M-12B6B



M-9D2B



M-10A2C

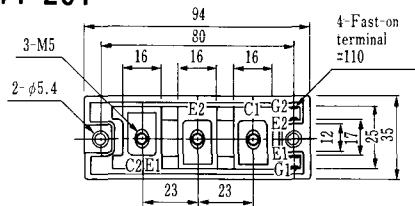


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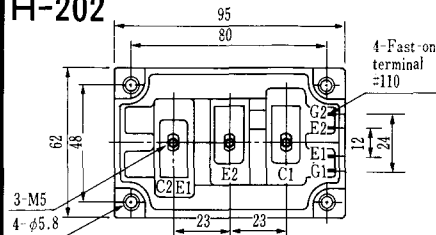
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H-201



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H-202



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LF-J



LF-K



