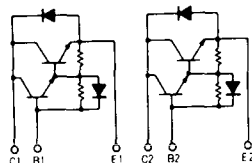


トランジスタ・モジュール (NPN, ダーリントン接続, 2個内蔵)

- ダーリントン・トランジスタを2個内蔵
- フリーホイール・ダイオード付
- 絶縁形
- 直流電流増幅率は100以上(定格電流にて)
- UL認定品: No. E76102 (M)

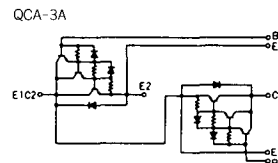
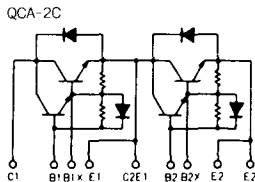
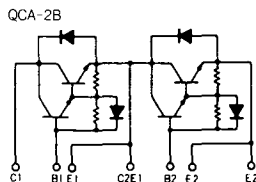
■等価回路

QBB-2A



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

型名	最大定格										電気的特性										
	$(T_c = 25^\circ\text{C})$																				
	V_{CB0} (V)	V_{CEX} (sus) V_{CEX} # (V)	V_{EBO} (V)	I_c (A)	I_{CP} (1ms) (A)	I_B (A)	I_F (A)	I_{FM} (1ms) (A)	P_c (注1) (W)	T_j ($^\circ\text{C}$)	T_{Vj} ($^\circ\text{C}$)	V_{Iso} (V)	I_{cbo} (mA)	V_{CB} (V)	I_{EBO} (mA)	V_{EB} (V)	V_{CE0} (sus)		h_{FE}		
												最大	最大	最大	最大	最小	I_c (A)	最小	V_{CE} (V)	I_c (A)	
QBB100A40	400	400	10	100	200	6.0	100		620	150	-40~125	2500	1.0	400	400	10	300	1.0	75/100	2/5	100
QBB100A60	600	600	10	100	200	6.0	100		620	150	-40~125	2500	1.0	600	400	10	450	1.0	75/100	2/5	100
QBB150A40	400	400	10	150	300	9.0	150		690	150	-40~125	2500	1.0	400	500	10	300	1.0	75/100	2/5	150
QBB150A60	600	600	10	150	300	9.0	150		690	150	-40~125	2500	1.0	600	500	10	450	1.0	75/100	2/5	150
QCA30B40	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
QCA30B60	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
QCA50B40	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
QCA50B60	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
QCA50AA100	1000	1000	7	50		3.0	50		400	150	-40~125	2500	1.0	1000	200	7			75/100	2.8/5	50
QCA50AA120	1200	1200	10	50		3.0	50		400	150	-40~125	2500	1.0	1200	300	10			75	5	50
QCA75A40	400	400	10	75	150	4.5	75		350	150	-40~125	2500	1.0	400	300	10	300	1.0	75/100	2/5	75
QCA75A60	600	600	10	75	150	4.5	75		350	150	-40~125	2500	1.0	600	300	10	450	1.0	75/100	2/5	75
QCA75AA100	1000	1000	7	75		4.0	75		500	150	-40~125	2500	1.0	1000	200	7			75/100	2.8/5	75
QCA75AA120	1200	1200	10	75		4.0	75		500	150	-40~125	2500	1.0	1200	300	10			75	5	75
QCA75BA60	600	600	10	75	150	4.5	75		350	150	-40~125	2500	1.0	600	300	10	450	1.0	750	2.5	75
QCA100A40	400	400	10	100	200	6.0	100		620	150	-40~125	2500	1.0	400	400	10	300	1.0	75/100	2/5	100
QCA100A60	600	600	10	100	200	6.0	100		620	150	-40~125	2500	1.0	600	400	10	450	1.0	75/100	2/5	100
QCA100AA100	1000	1000	7	100		5.0	100		800	150	-40~125	2500	2.0	1000	400	7			75/100	2.8/5	100
QCA100AA120	1200	1200	10	100		5.0	100		800	150	-40~125	2500	2.0	1200	600	10			75	5	100
QCA100BA60	600	600	10	100	200	6.0	100		620	150	-40~125	2500	2.0	600	400	10	450	1.0	750	2.5	100



(T _j = 25°C)										エミッタ・コレクタ間ダイオード					熱抵抗		等価回路	外形図	記	事	型	名	
飽和電圧 (V)		I _c	I _B	スイッチング時間 (μs)			I _{B1}	I _{B2}	V _{cc}	I _c	V _F (V)	I _F (μs)	t _{rr} (μs)	* 標準値	di/dt (A/μs)	R _{th (j-c)} (°C/W)							
V _{ce}	V _{BE}			t _{on}	t _{off}	t _r										最大							最大
2.0	2.5	100	1.4	2.0	12	3.0	2.0	-2.0	300	100	1.4	100				0.2	0.6	QBB-2A	S-98B1B	UL認定品	QBB100A40		
2.0	2.5	100	1.4	2.0	12	3.0	2.0	-2.0	300	100	1.4	100				0.2	0.6	QBB-2A	S-98B1B	UL認定品	QBB100A60		
2.0	2.5	150	2.0	2.0	12	3.0	2.0	-2.0	300	150	1.4	150				0.18	0.6	QBB-2A	S-98B1B	UL認定品	QBB150A40		
2.0	2.5	150	2.0	2.0	12	3.0	2.0	-2.0	300	150	1.4	150				0.18	0.6	QBB-2A	S-98B1B	UL認定品	QBB150A60		
2.0	2.5	30	0.4	1.0	12	2.0	0.6	-0.6	300	30	1.4	30				0.5	1.6	QCA-2B	S-94B1A	UL認定品	QCA30B40		
2.0	2.5	30	0.4	1.0	12	2.0	0.6	-0.6	300	30	1.4	30				0.5	1.6	QCA-2B	S-94B1A	UL認定品	QCA30B60		
2.0	2.5	50	0.67	1.0	12	2.0	1.0	-1.0	300	50	1.4	50				0.4	1.3	QCA-2B	S-94B1A	UL認定品	QCA50B40		
2.0	2.5	50	0.67	1.0	12	2.0	1.0	-1.0	300	50	1.4	50				0.4	1.3	QCA-2B	S-94B1A	UL認定品	QCA50B60		
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	QCA-3A	S-94B1B	UL認定品	QCA50AA100		
3.0	3.5	50	1.0	2.5	15	3.0	1.0	-1.0	600	50	1.8	50				0.31	1.2	QCA-3A	S-94B1B	UL認定品	QCA50AA120		
2.0	2.5	75	1.0	2.0	12	3.0	1.0	-1.0	300	75	1.4	75				0.35	1.3	QCA-2B	S-94B1A	UL認定品	QCA75A40		
2.0	2.5	75	1.0	2.0	12	3.0	1.0	-1.0	300	75	1.4	75				0.35	1.3	QCA-2B	S-94B1A	UL認定品	QCA75A60		
2.5	3.5	75	1.5	2.5	15	3.0	1.5	-1.5	600	75	1.8	75				0.25	1.2	QCA-3A	S-108B1B	UL認定品	QCA75AA100		
3.0	3.5	75	1.5	2.5	15	3.0	1.5	-1.5	600	75	1.8	75				0.25	1.2	QCA-3A	S-108B1B	UL認定品	QCA75AA120		
2.5	3.0	75	0.1	2.0	8.0	2.0	0.15	-1.5	300	75	1.9	75	0.2 *	75	-5	75	0.35	1.3	QCA-3A	S-94B1A	高H _{FE} 品	QCA75BA60	
2.0	2.5	100	1.4	2.0	12	3.0	2.0	-2.0	300	100	1.4	100				0.2	0.6	QCA-2C	S-95B1A	UL認定品	QCA100A40		
2.0	2.5	100	1.4	2.0	12	3.0	2.0	-2.0	300	100	1.4	100				0.2	0.6	QCA-2C	S-95B1A	UL認定品	QCA100A60		
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	QCA-3B	S-108B2A	UL認定品	QCA100AA100		
3.0	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100				0.155	0.65	QCA-3B	S-108B2A	UL認定品	QCA100AA120		
2.5	3.0	100	0.13	2.0	8.0	2.0	0.2	-2.0	300	100	1.8	100	0.2 *	100	-5	100	0.2	0.6	QCA-3B	S-95B1A	高H _{FE} 品	QCA100BA60	

FD-1



FD-2



FD-3



FD-4



FD-5



FD-6



FD-7



FD-8



FD-9



FD-10



FD-11

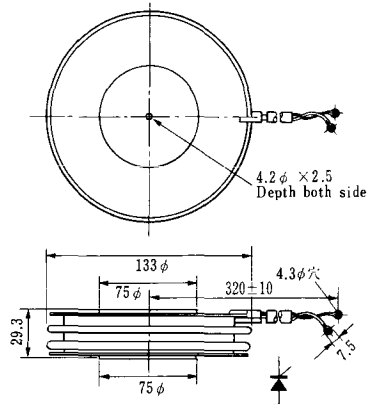
FD-12



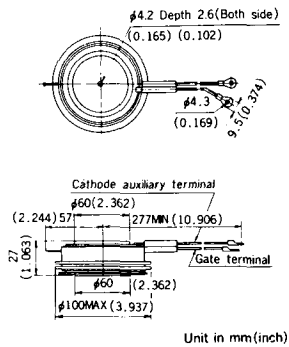


《寸法図単位：mm》

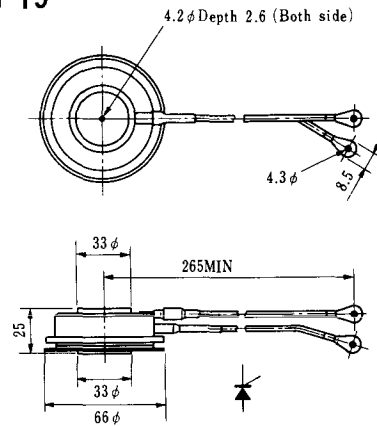
H-17



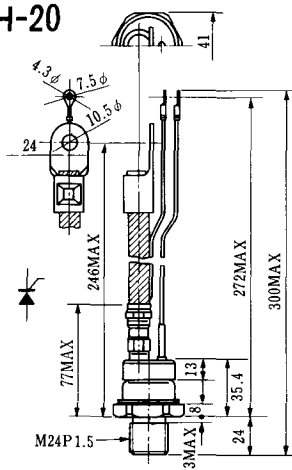
H-18



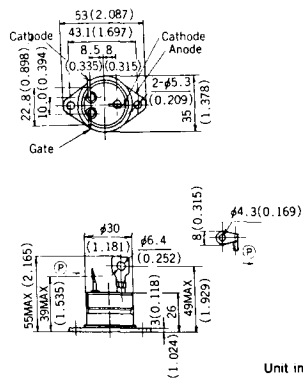
H-19



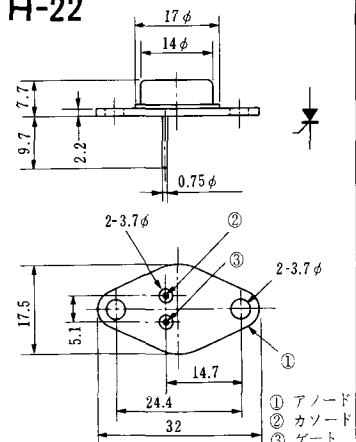
H-20



H-21



H-22



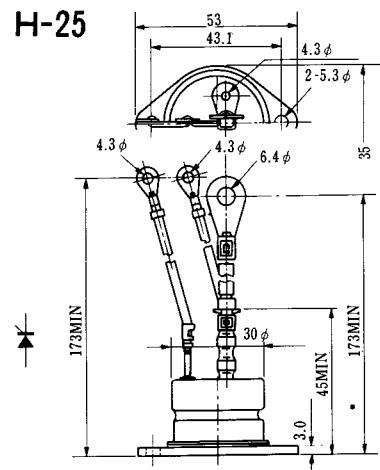
H-23



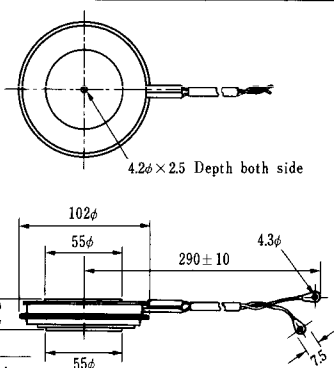
H-24



H-25



H-26



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

CA12	
------	--

H-27

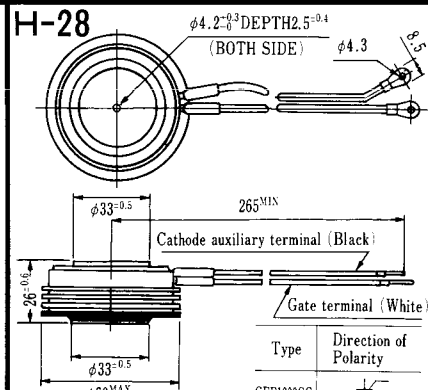


Type	Direction of polarity
------	-----------------------

CF11V	
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(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)



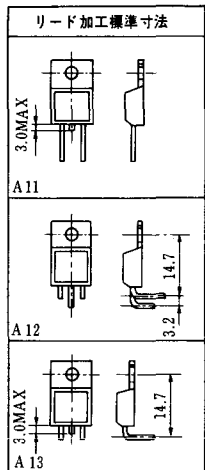
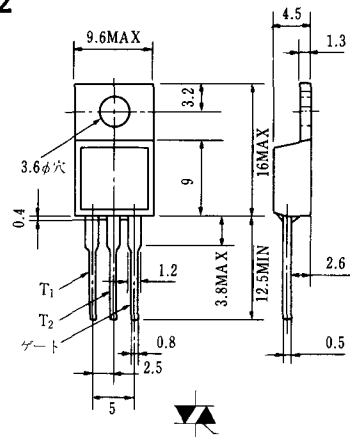
Note : The thickness is a dimension in press at the rated mounting force. Weight: 1,460(g)

HT-1

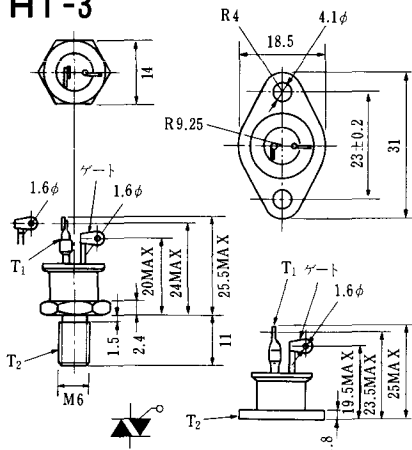


Unit in mm (inch)

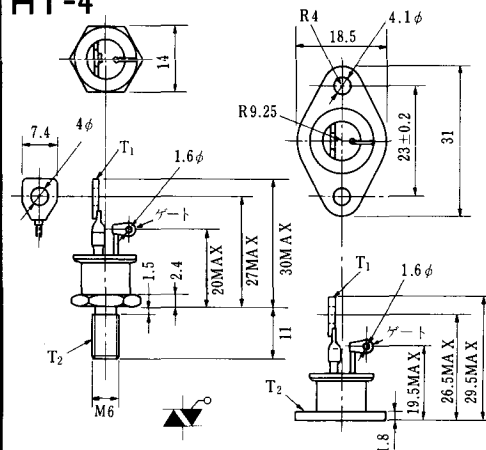
HT-2



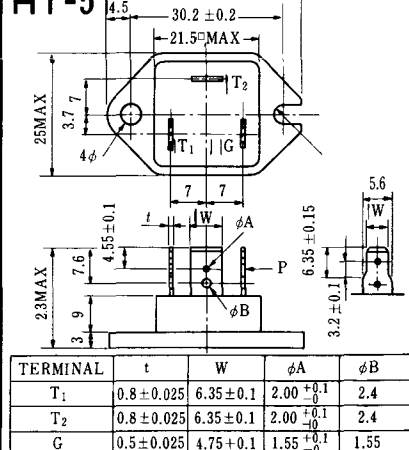
HT-3



HT-4



HT-5



《寸法図単位：mm》

M-1



M-2



M-3



M-4



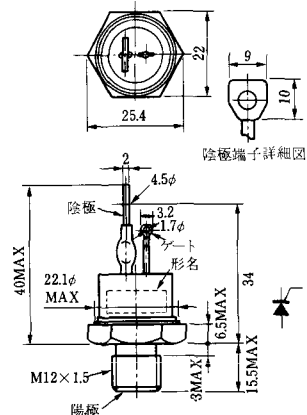
M-5



M-6



M-7



M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15



M-16





M-25



M-26



M-27



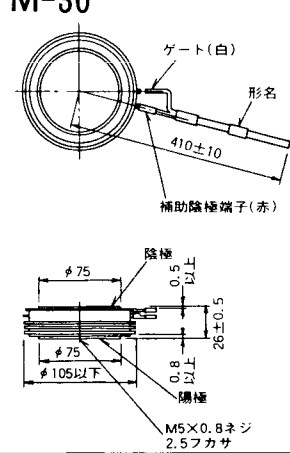
M-28



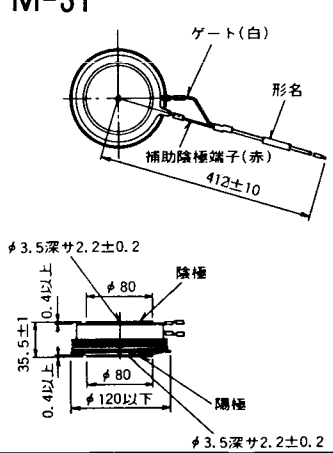
M-29



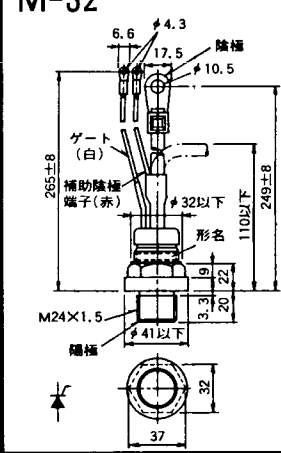
M-30



M-31



M-32



M-33



M-34



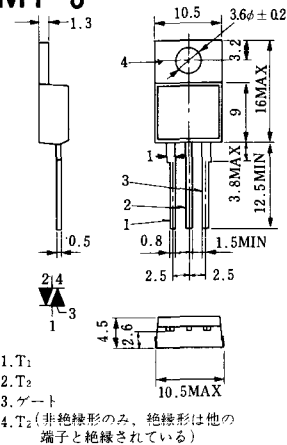
MT-1



MT-2



MT-3



MT-4



MT-5



MT-6



MT-7



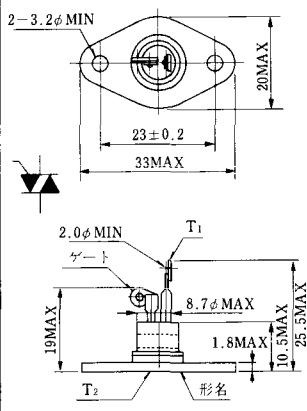
MT-8



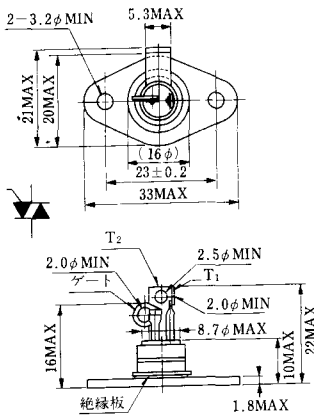
MT-9



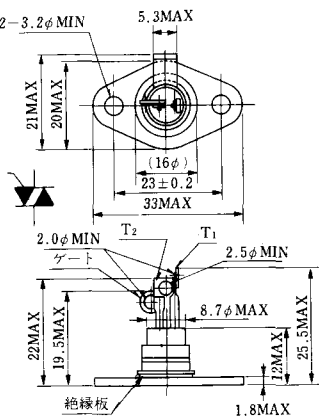
MT-10



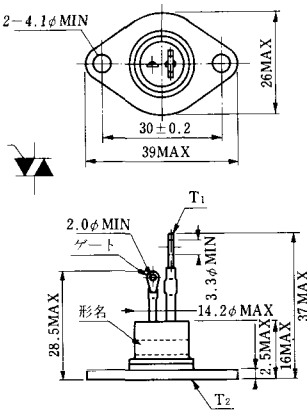
MT-11



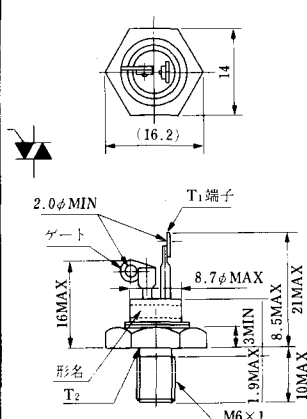
MT-12



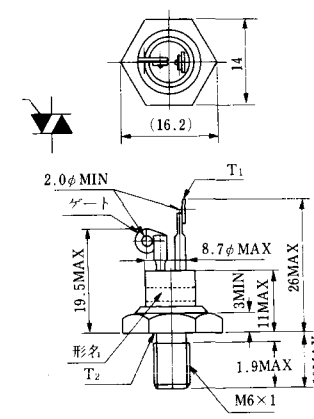
MT-13



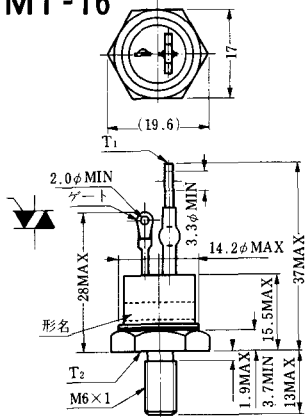
MT-14



MT-15



MT-16

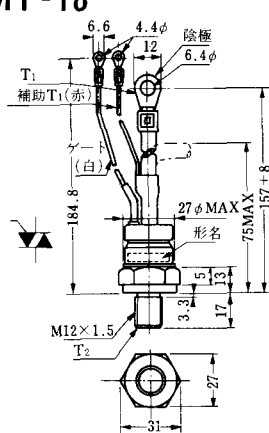


MT-17

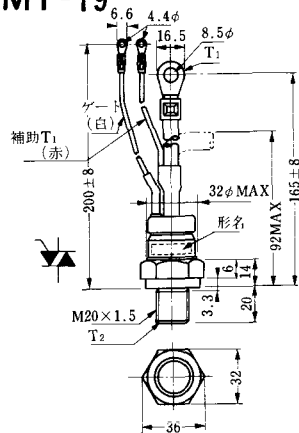


端子詳細図

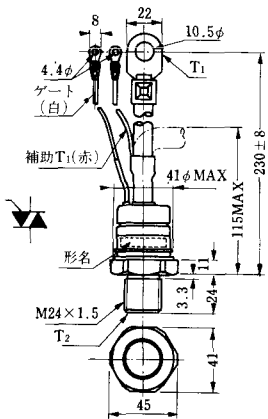
MT-18



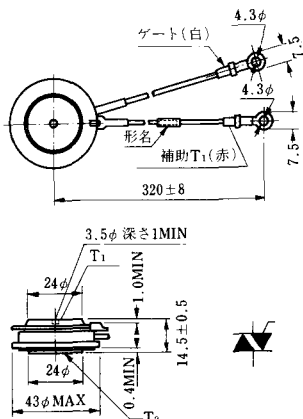
MT-19



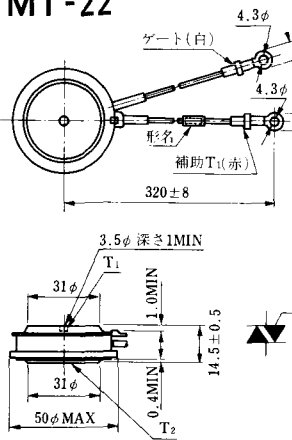
MT-20



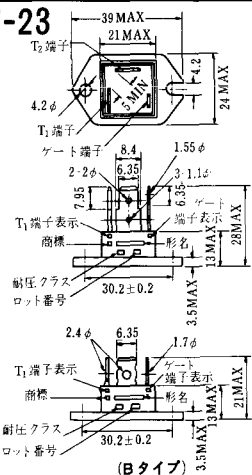
MT-21



MT-22



MT-23



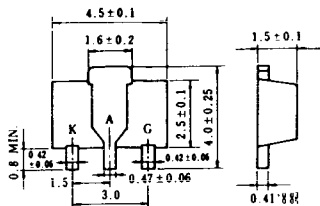
MT-24



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



N-9



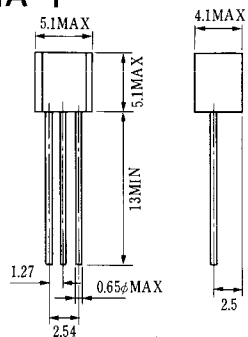
電極接続

K : カソード

A : アノード

G : ゲート

NA-1

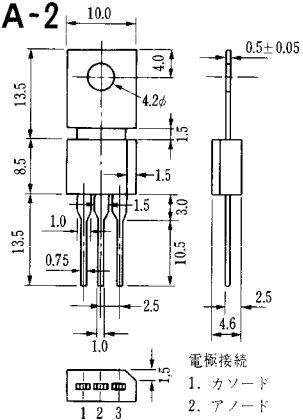


電極接続

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

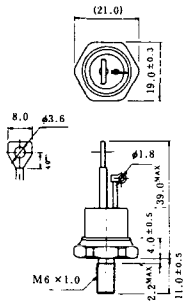
JEDEC: TO-202AA

NI-1



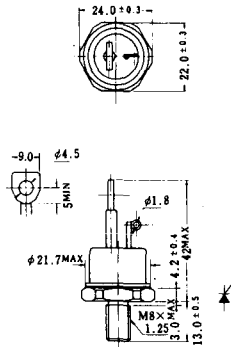
NI-2

29RD



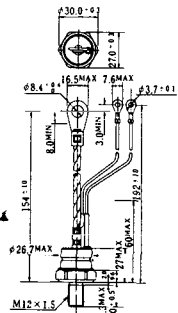
NI-3

39RC
59RC
39RF
59RF



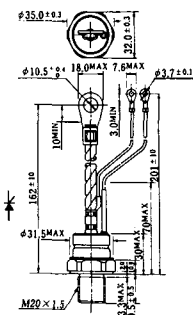
NI-4

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



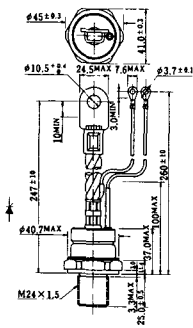
NI-5

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



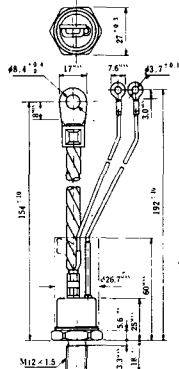
NI-6

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



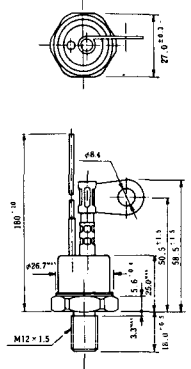
NI-7

89RW_{JL}
129RW_{JL}



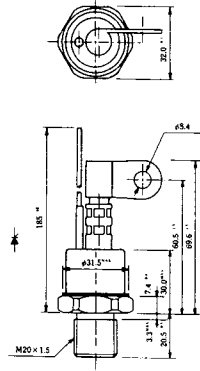
NI-8

89RW
129RW



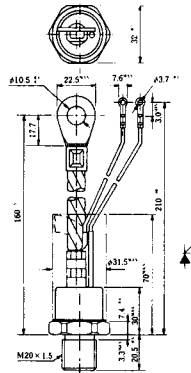
NI-9

259RW
309RW



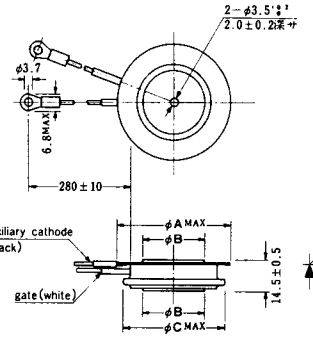
NI-10

259RW_JL
309RW_JL



NI-11

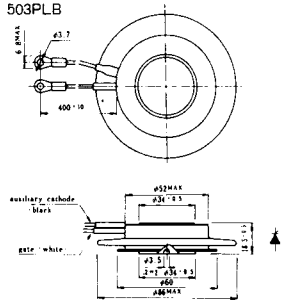
103PA
253PA
503PA
553PA
803PA
103PLE
103PLG
103PLH
203PLG
253PLE
253PLH
353PLG
403PLE
403PLH



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

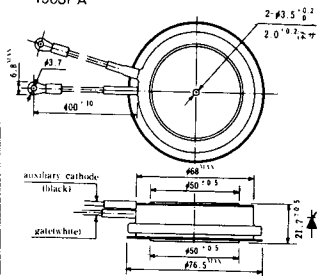
NI-12

403PAB
503PAB
503PLB



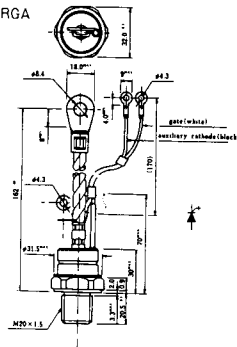
NI-13

1003PA
1003PAB
1003PLF
1003PLH
1503PA



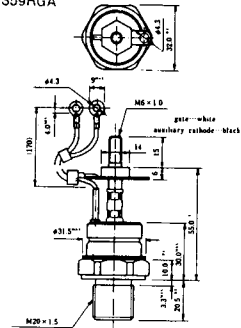
NI-14

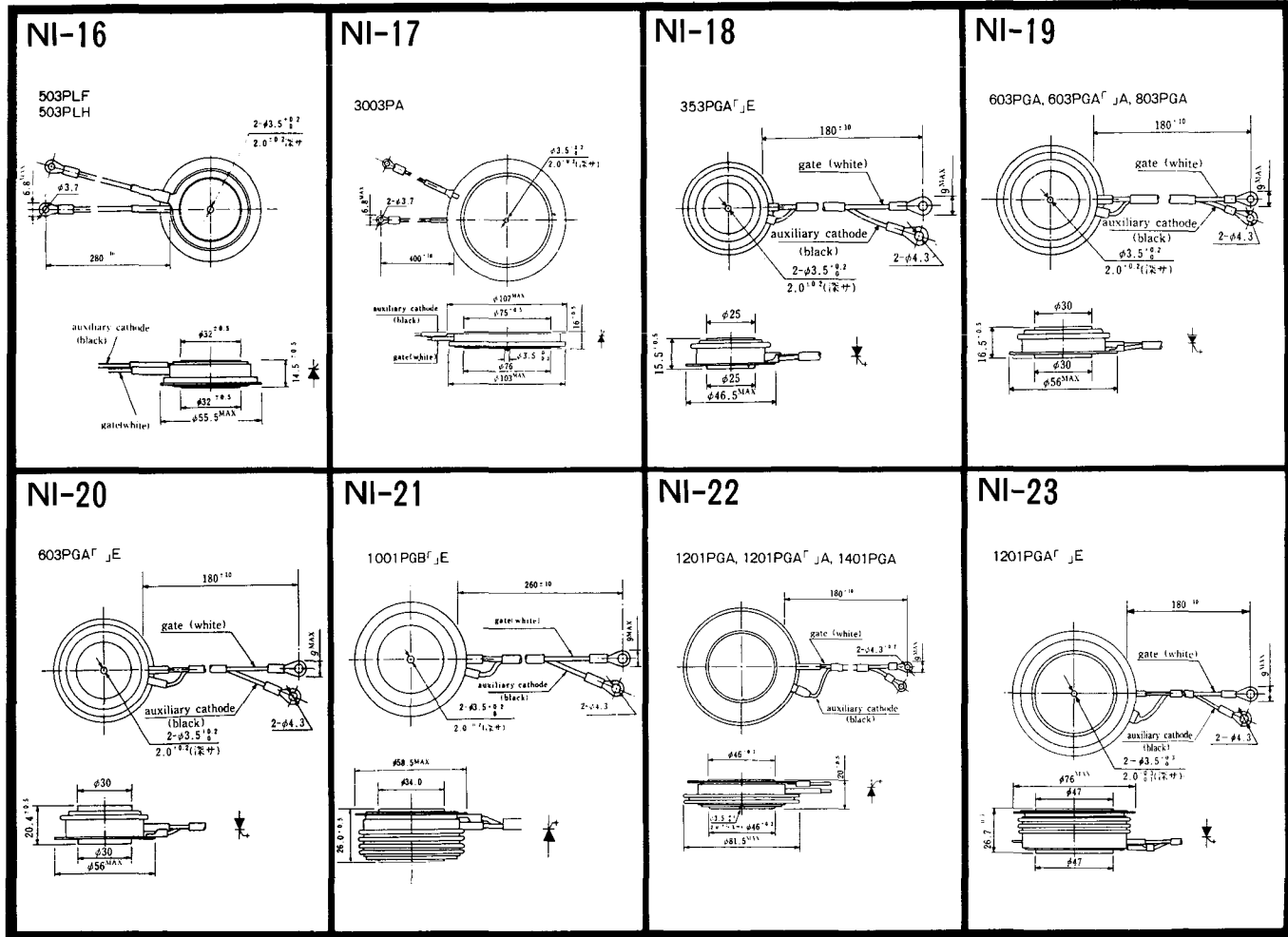
358RGA



NI-15

359RGA





NI-24

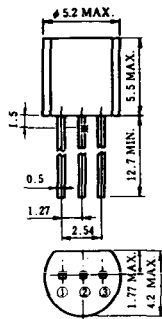
2001PGB^r JE



NI-25

NI-26

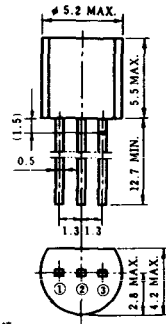
NT-1



電極接続

- ① T₁
- ② ゲート
- ③ T₂

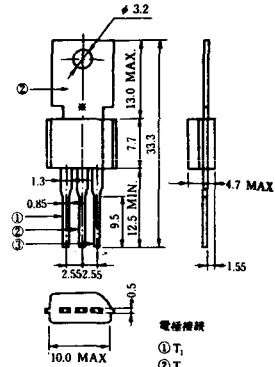
NT-2



電極接続

- ① T₁
- ② ゲート
- ③ T₂

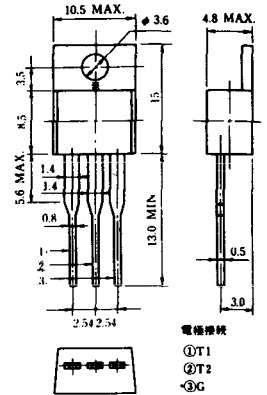
NT-3



電極接続

- ① T₁
- ② T₂
- ③ ゲート

NT-4



電極接続

- ① T₁
- ② T₂
- ③ G

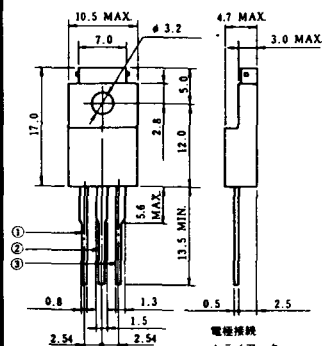
NT-5



電極接続
トライアック

- ① T₁
- ② T₂
- ③ ゲート

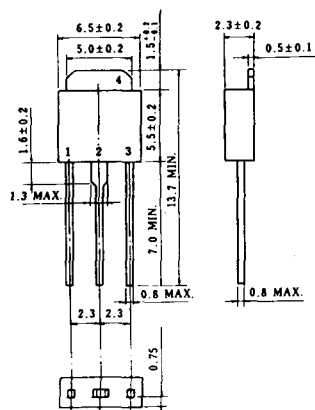
NT-6



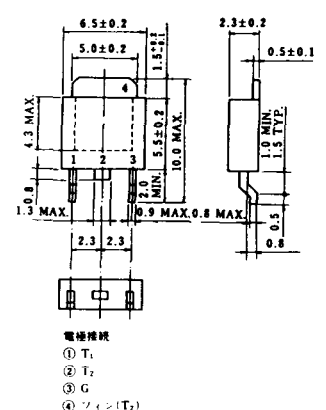
電極接続
トライアック

- 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)

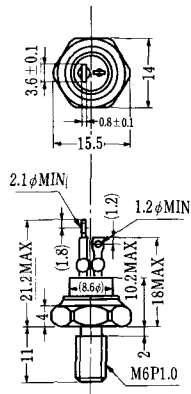
S-1



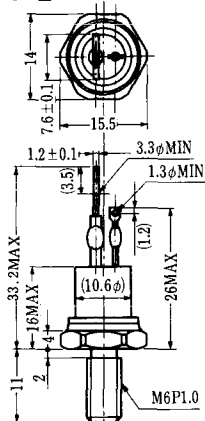
ST-1



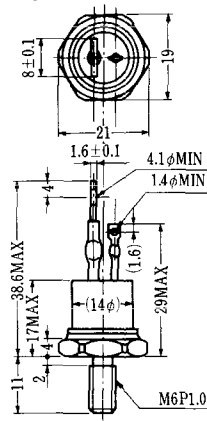
SA-1



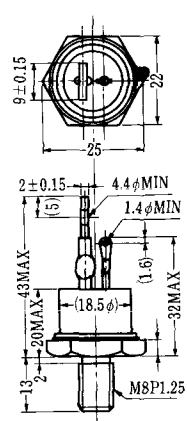
SA-2



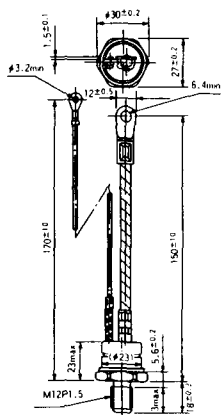
SA-3



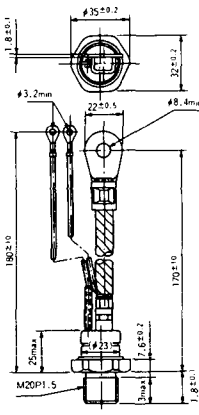
SA-4



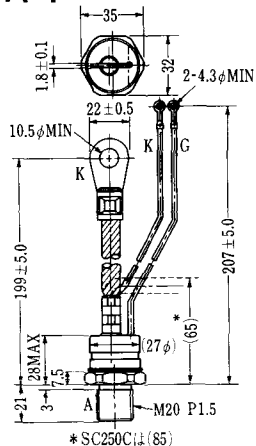
SA-5



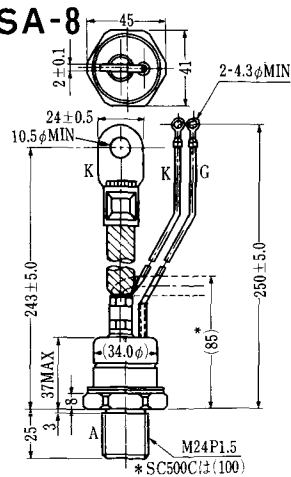
SA-6

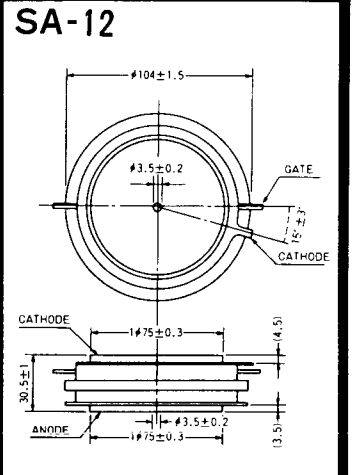
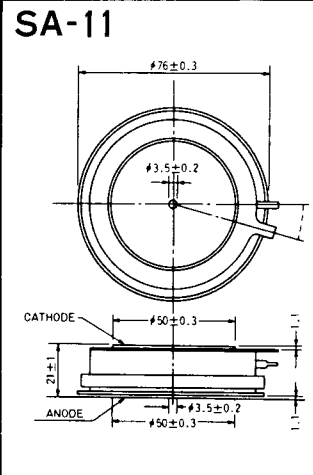
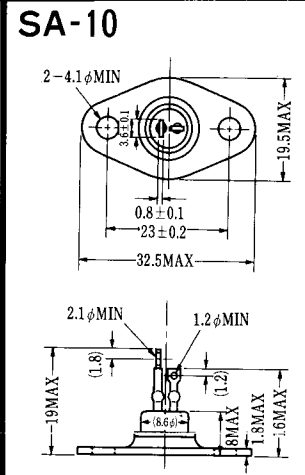
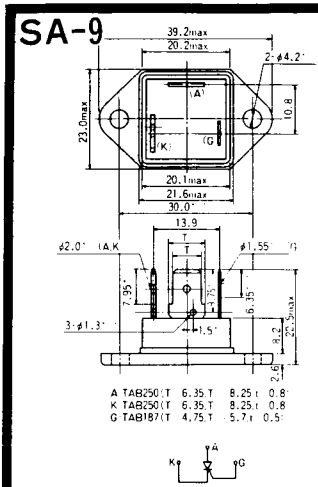


SA-7

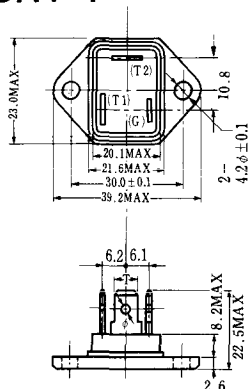


SA-8





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)
 C 端子: フラスト > 187 (T=4.75, t=0.5, φ=1.3)

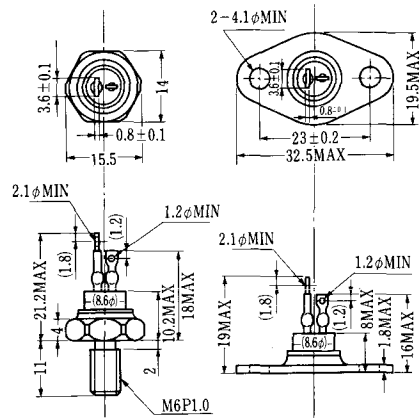
SAT-2



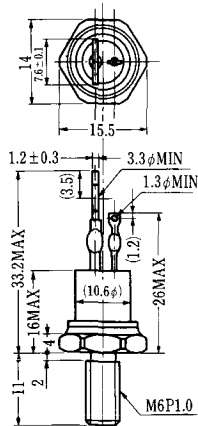
SAT-3



SAT-4



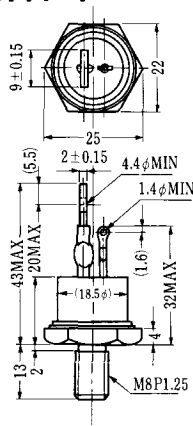
SAT-5



SAT-6



SAT-7



SAT-8



SAT-9



SAT-10



SAT-11



SY-1 (1096A)



C: Cathode
A: Anode
G: Gate

SY-2 (1151)



G: Gate
A: Anode
C: Cathode

SY-3 (1104)



G: Gate
A: Anode
C: Cathode

SY-4 (1150)



G: Gate
A: Anode
C: Cathode

1097A



G: Gate

1102



1141



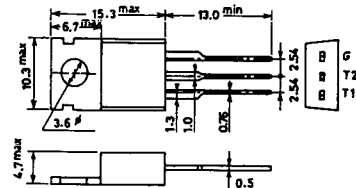
1142



1144



1155

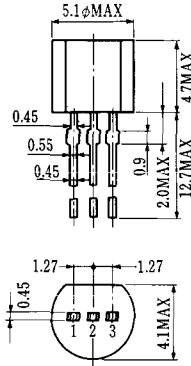


1192A



G: Gate

T-1 (13-5A1A)



- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



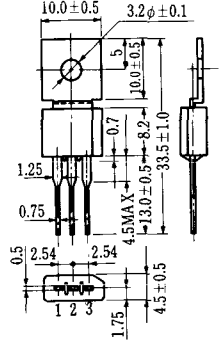
1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)

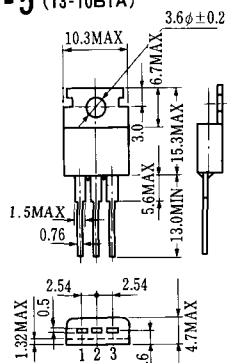


- 1 カソード
- 2 アノード
- 3 ゲート

T-4 (13-10A1A)

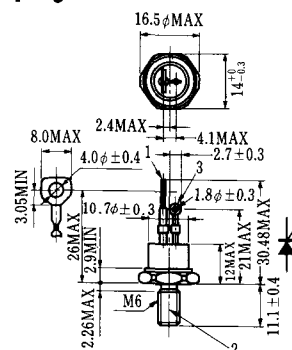


T-5 (13-10B1A)



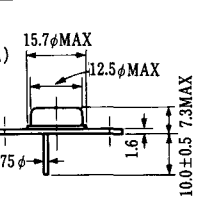
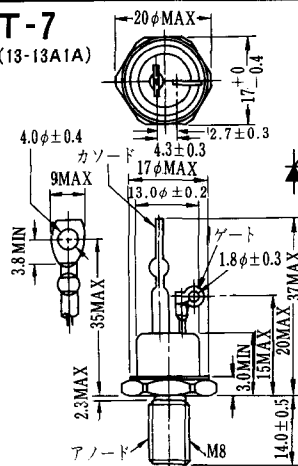
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



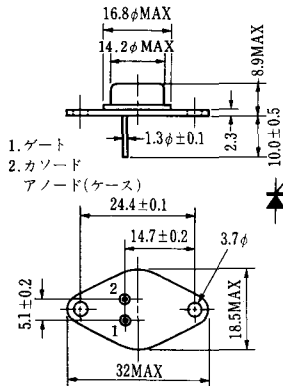
- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)



1. ゲート
2. カソード
3. アノード(ケース)

T-9 (13-14A1A)



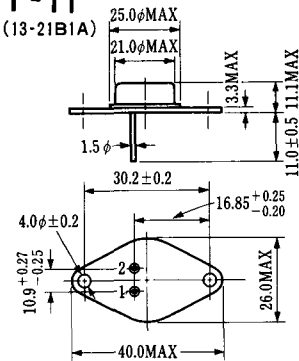
1. ゲート
2. カソード
- アノード(ケース)

T-10 (13-19A1A)



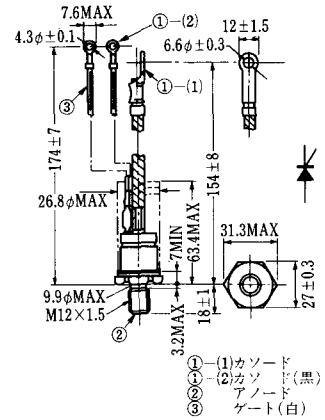
1. カソード
2. アノード
3. ゲート

T-11 (13-21B1A)



1. ゲート
2. カソード
- アノード(ケース)

T-12 (13-27B1B)



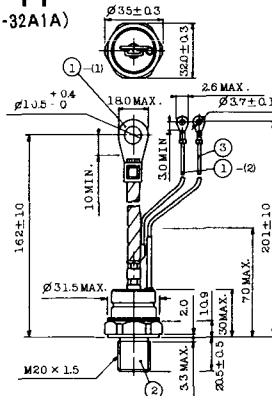
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

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)

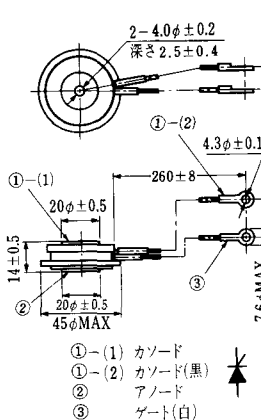


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

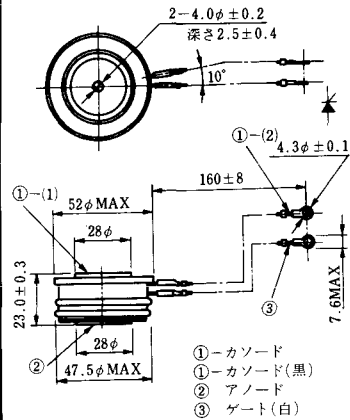
T-17 (13-42A1A)



T-18 (13-45D1A)



T-19 (13-52B1A)



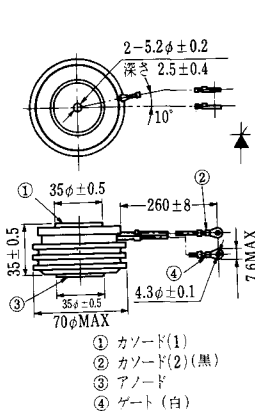
T-20 (13-52C1A)



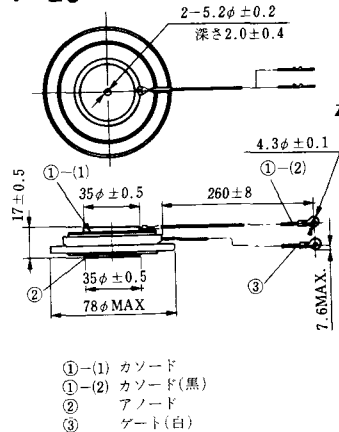
T-21 (13-60A1A)



T-22 (13-70C1A)



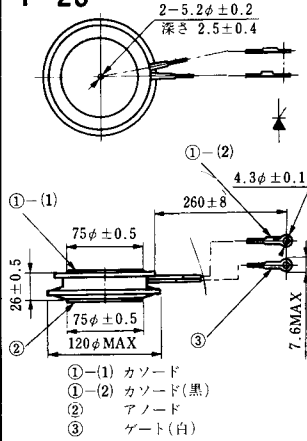
T-23 (13-78A1A)



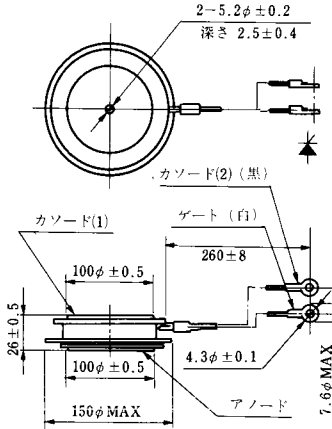
T-24 (13-100C1A)



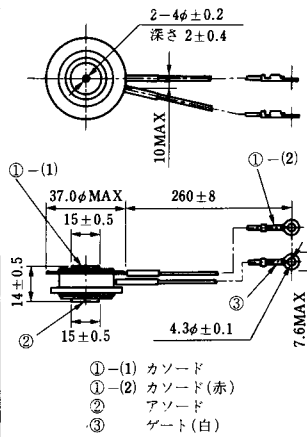
T-25 (13-120A2A)



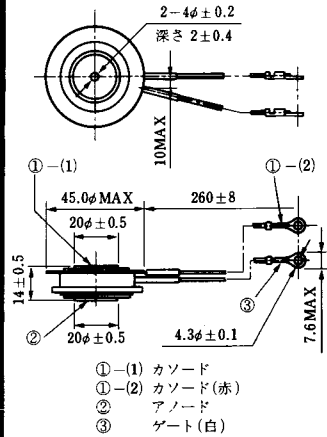
T-26 (13-150A1A)



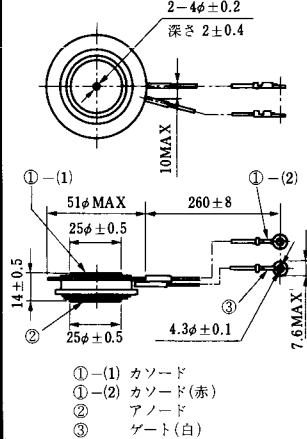
T-27 (13-37A1A)



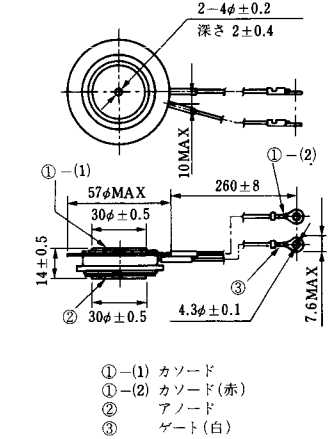
T-28 (13-45E1A)



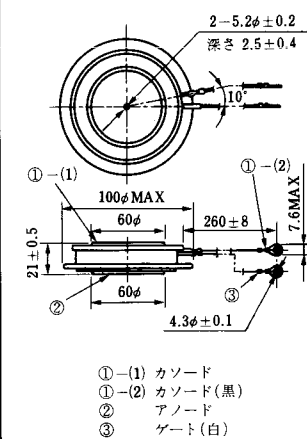
T-29 (13-51A1A)



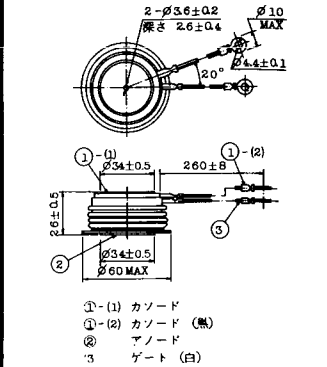
T-30 (13-57A1A)



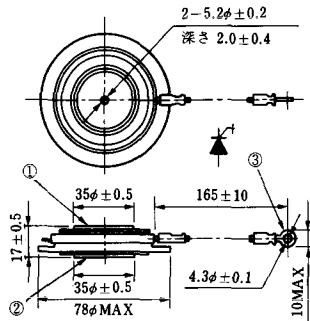
T-31 (13-100E1A)



T-32 (13-60E3A)

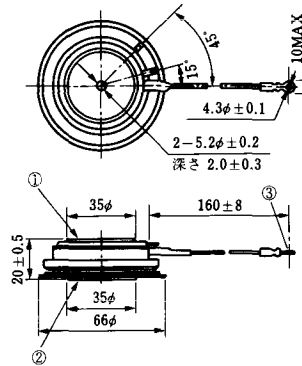


T-33 (13-78B1A)



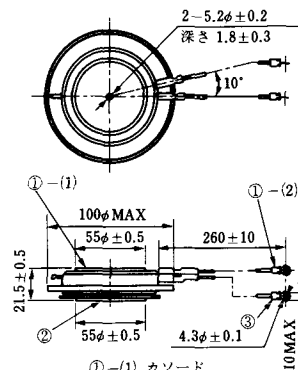
- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



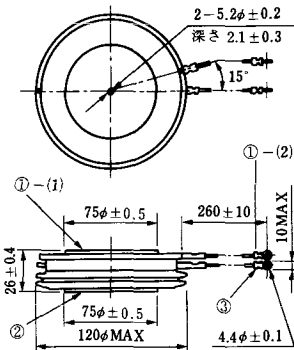
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



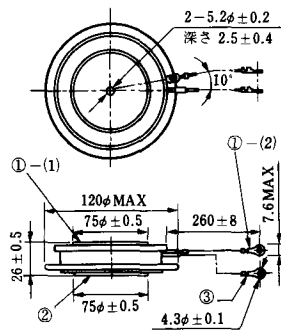
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



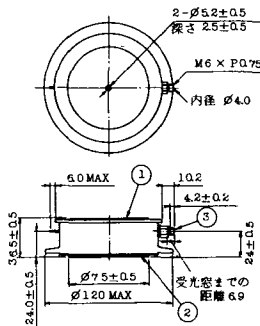
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



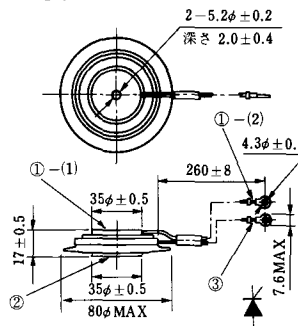
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



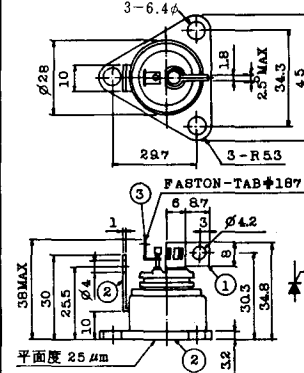
- ① カソード
- ② アノード
- ③ ゲート

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)

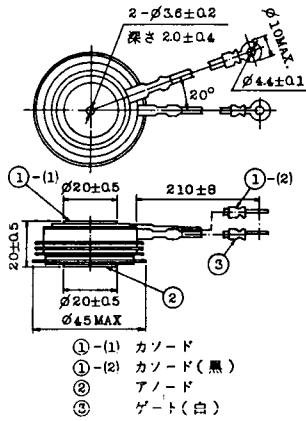


- 1. カソード
- 2. アノード
- 3. ゲート

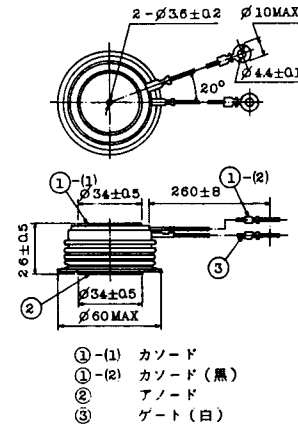
T-41 (13-28A2A)



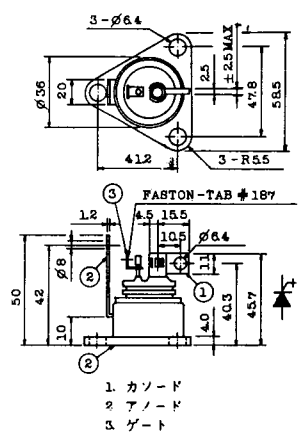
T-42 (13-45F1A)



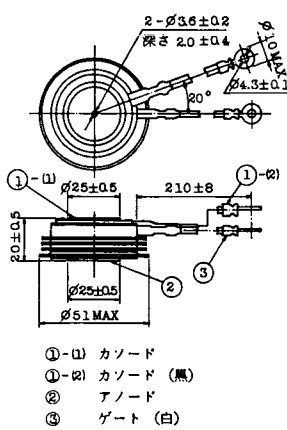
T-43 (13-60E2A)



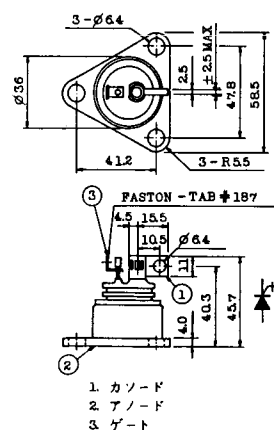
T-44 (13-36A1A)



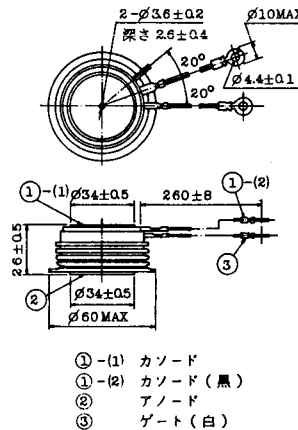
T-45 (13-51B1A)



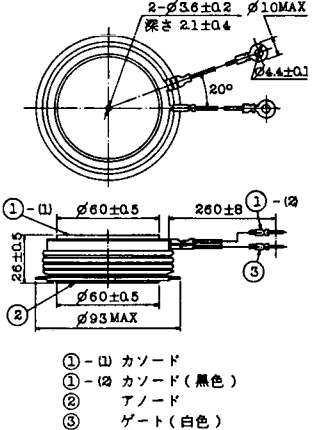
T-46 (13-36B1A)



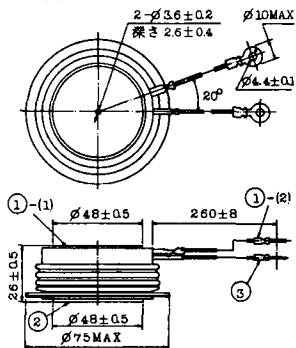
T-47 (13-60E1A)



T-48 (13-93C1A)

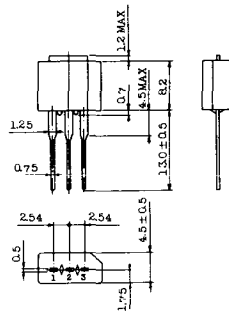


T-49 (13-75A1A)



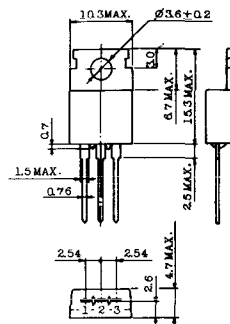
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-50 (13-10A3A)



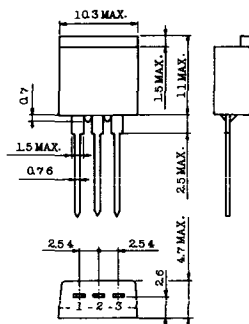
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



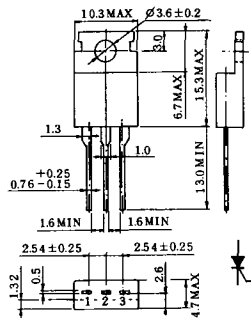
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



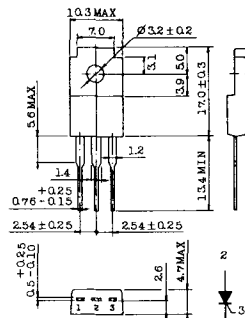
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



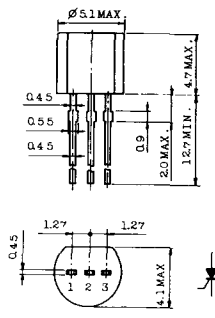
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



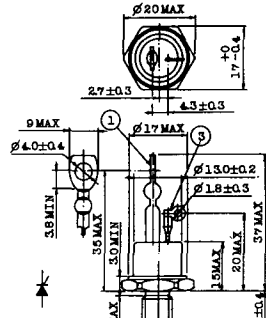
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



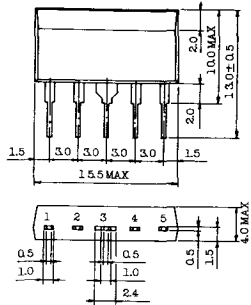
- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



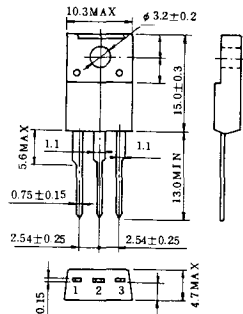
- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



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

T-58 (13-10H1B)



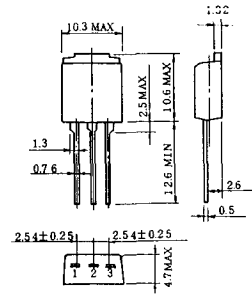
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



- 1-(1) カソード
- 1-(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)



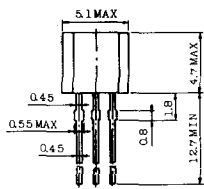
1. カソード
2. アノード
3. ゲート

TT-1



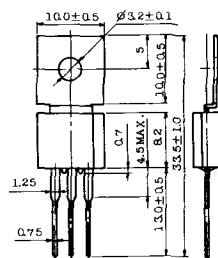
- 1 ゲート
- 2 T₂
- 3 T₁

TT-2



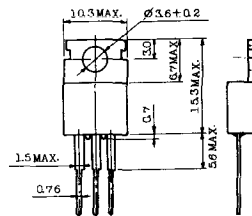
- 1 T₁
- 2 ゲート
- 3 T₂

TT-3



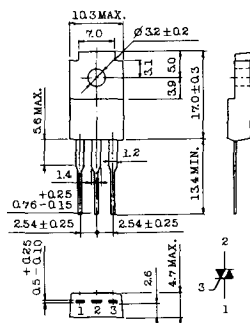
- 1 T₁
- 2 T₂
- 3 ゲート

TT-4



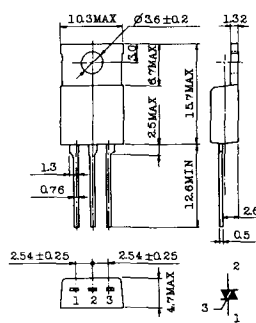
- 1 T₁
- 2 T₂
- 3 ゲート

TT-5



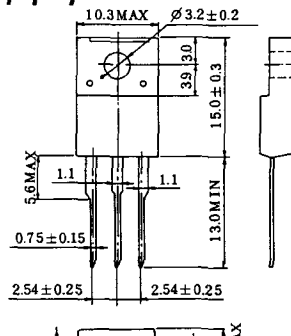
- 1 T₁
- 2 T₂
- 3 ゲート

TT-6



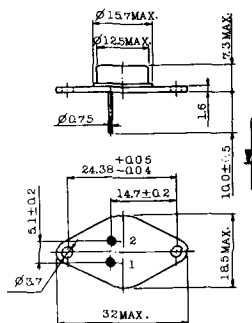
- 1 T₁
- 2 T₂ (放熱板)
- 3 ゲート

TT-7



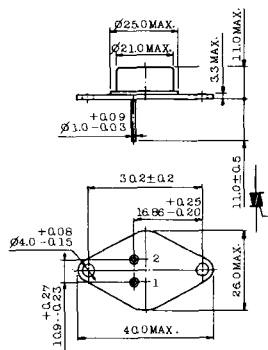
- 1 T₁
- 2 T₂
- 3 ゲート

TT-8



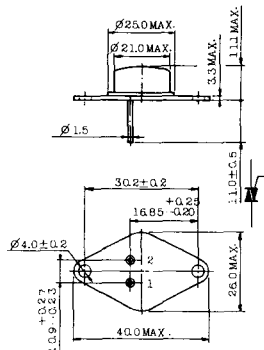
- 1 ゲート
- 2 T₁
- T₂ (ケース)

TT-9



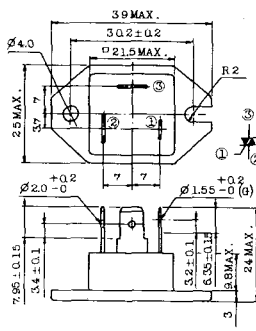
1. ゲート
2. T₁
3. T₂ (ケース)

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)

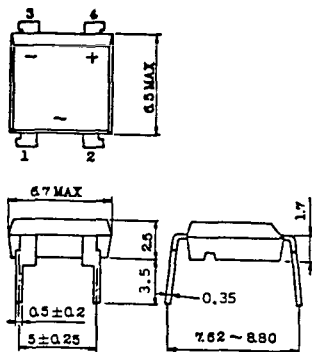
TT-12



ゲート端子詳細

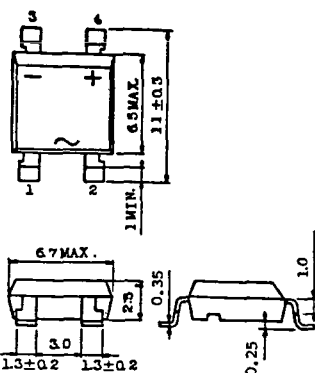
- ① ゲート (フーストン端子 # 187)
- ② T₁ (" # 250)
- ③ T₂ (" # 250)

TT-13



- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-14



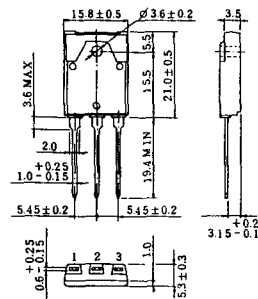
- 1, 2: T₂
- 3: GATE
- 4: T₁

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

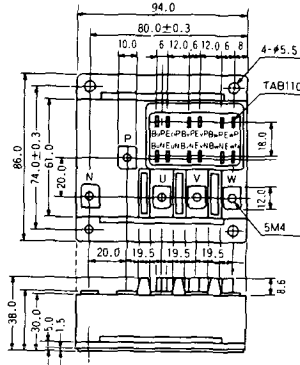


- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

S-94B2A



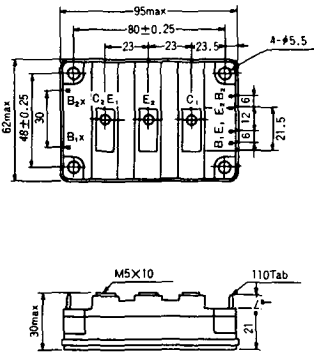
S-94D1A



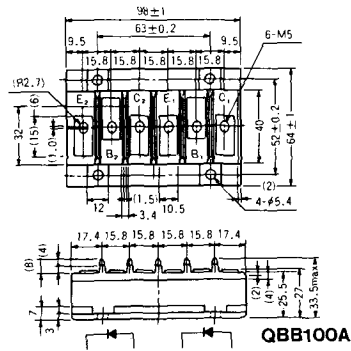
S-95A1A



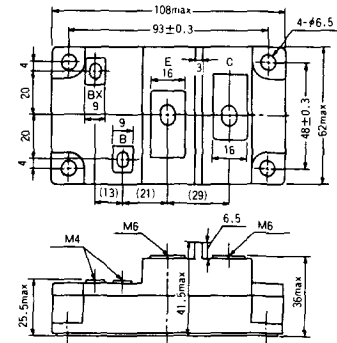
S-95B1A



S-98B1B



S-108A2A



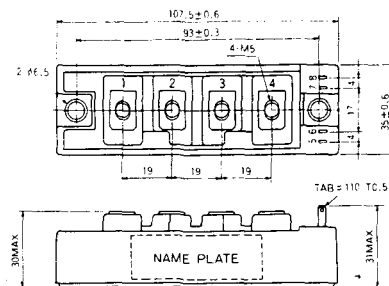
S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



2-22B1A



2-27A4A



2-33C1A



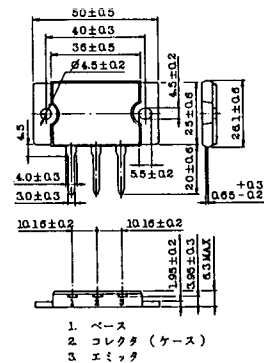
2-33D1A



2-33F1A



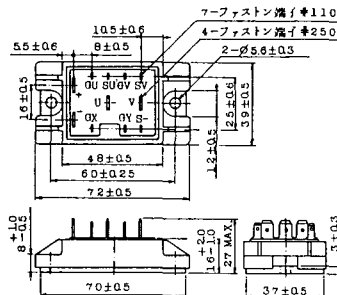
2-37A1A



2-48A3A



2-48A3B



2-48A4A



2-64A2A



2-64A2B



2-68A2A



2-68B2A



2-68C1A



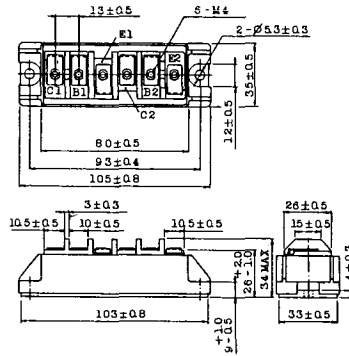
2-68D2A



2-72A3A



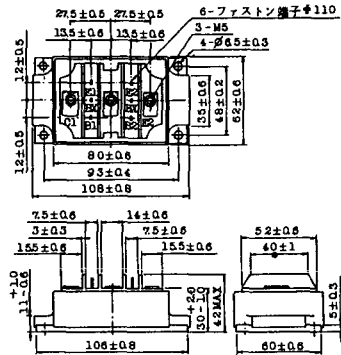
2-80A1A



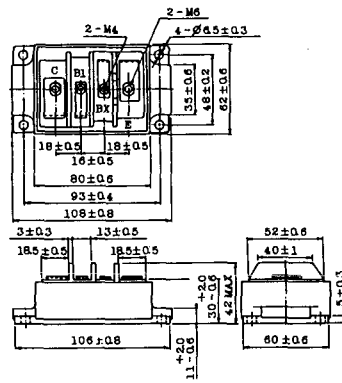
2-80B1A



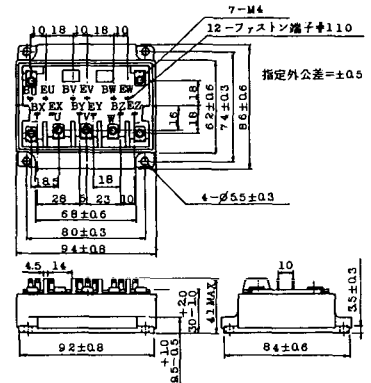
2-80C1A



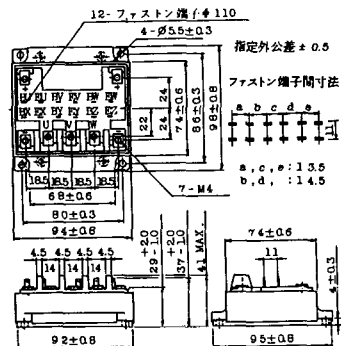
2-80D2A



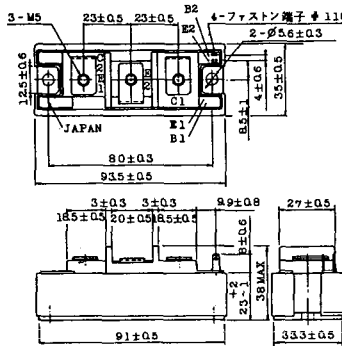
2-94A2A



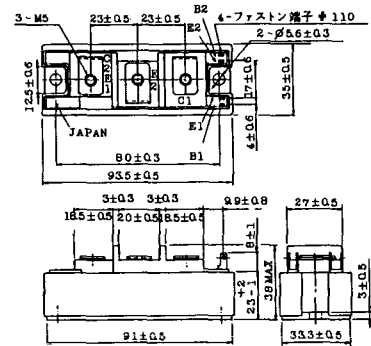
2-94B1A



2-94C2A



2-94C3A



2-94D1A



2-96A3A



2-96A4A



2-98B1A



2-98C2A



2-108A2A



2-108B1A



2-109A3A



2-109A4A



2-109B3A

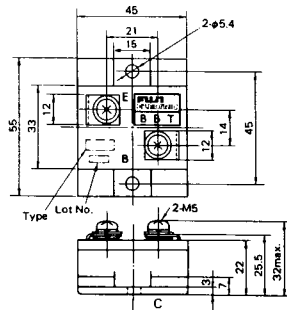


2-109B4A



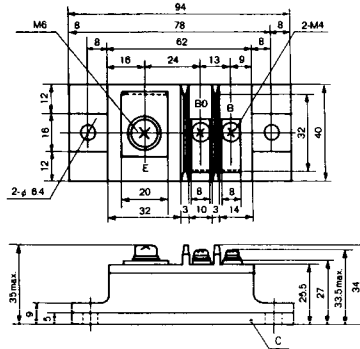
BBT-II

BBTII
1D200A-020



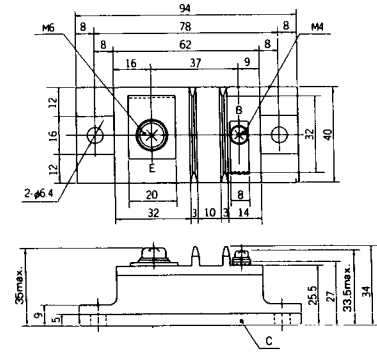
BBT-III

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



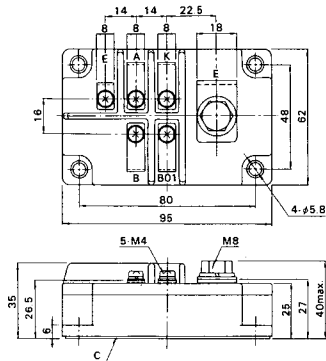
BBT-III

BBTIII
ETN01-055
ET1257

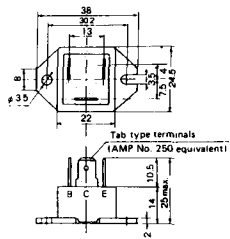


BBT-IV

BBTIV
1D500A-030



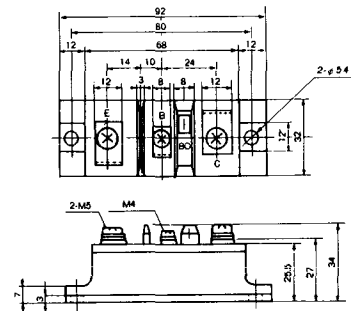
M-101



M-102



M-103



M-104



M-105



M-106



M-107



M-116



M-201



M-202



M-203



M-204



M-205



M-206



M-207



M-208



M-209



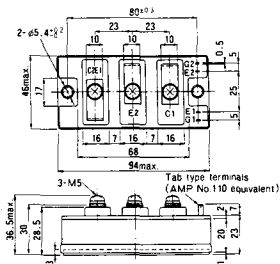
M-210



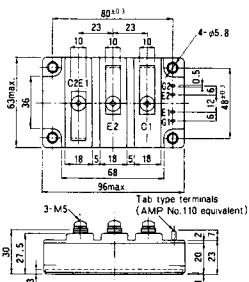
M-211



M-212

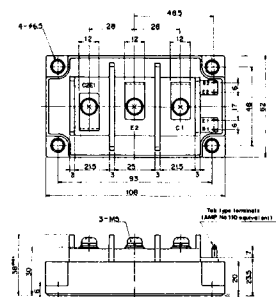


M-213

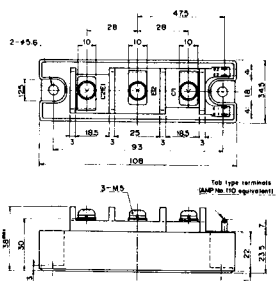


M-214

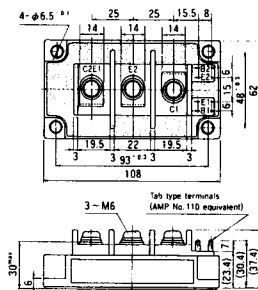
M-215



M-216



M-217



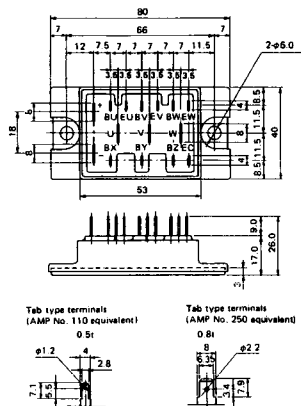
M-218



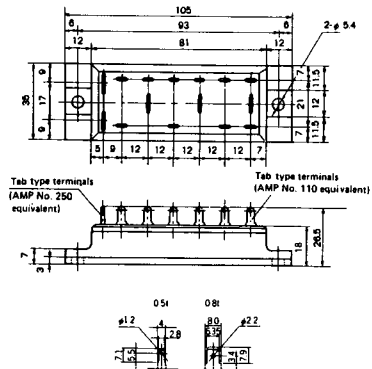
M-219



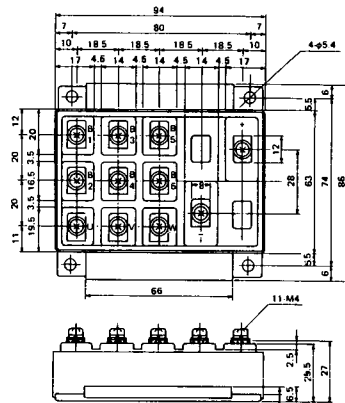
M-601



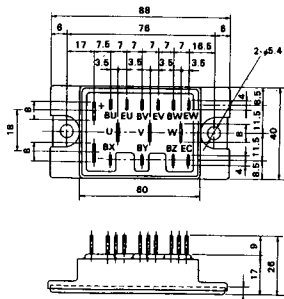
M-602



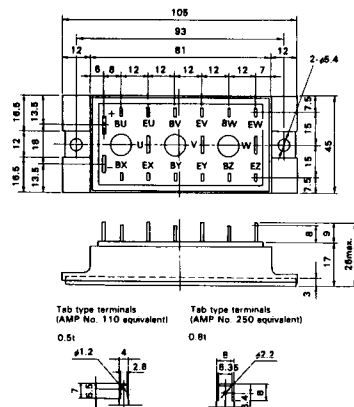
M-603



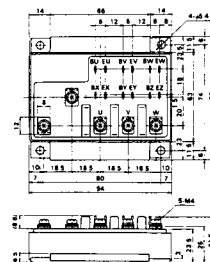
M-604



M-605



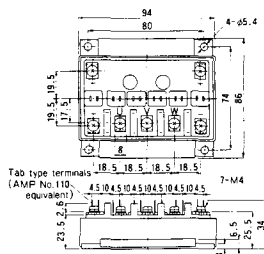
M-606



M-607



M-608



M-609



M-610



M-616



M-1A1A



M-2A1A



M-2B1A



M-2B2A



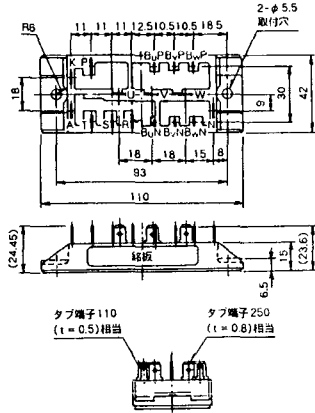
M-2C2A



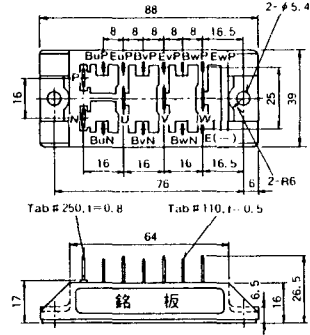
M-2D4A



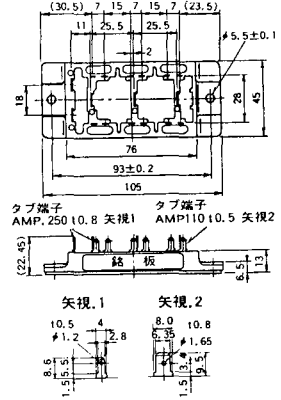
M-2E6A



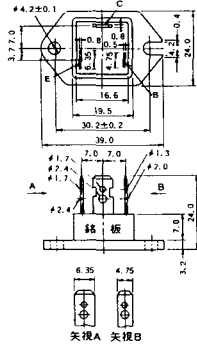
M-2F6A



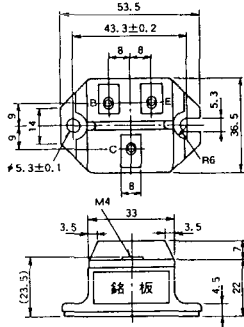
M-2G6A



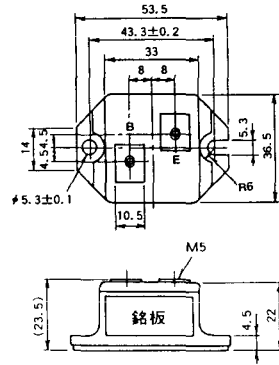
M-3A1A



M-3B1A



M-3B1B



M-3C1A



M-3D6A



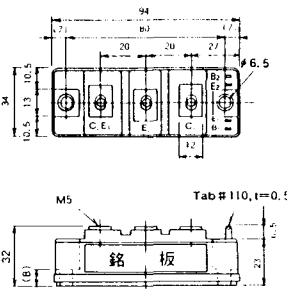
M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



M-7B1A



M-8A1A



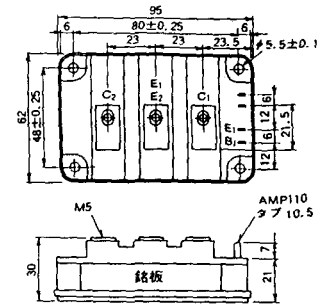
M-8A1B



M-8A2A



M-8A2B



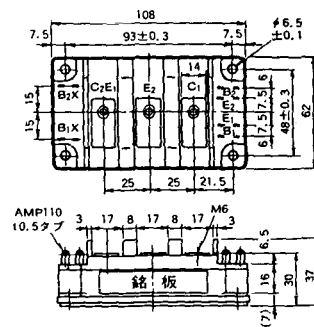
M-8B2A



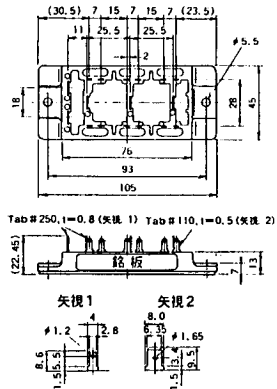
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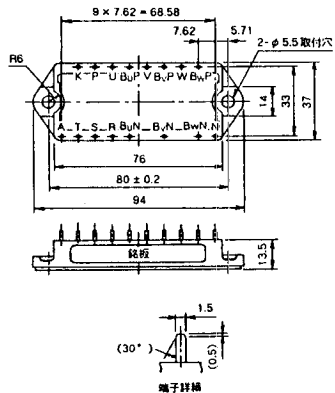
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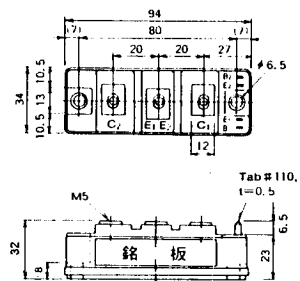
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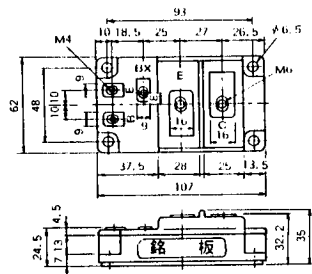
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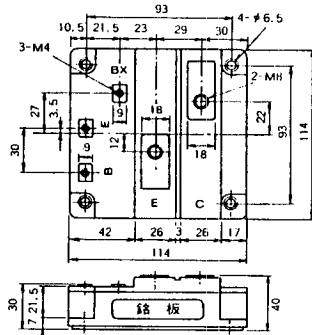
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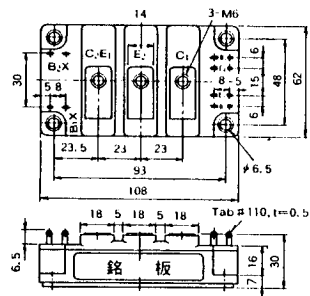
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M-7C1A



M-8A2C



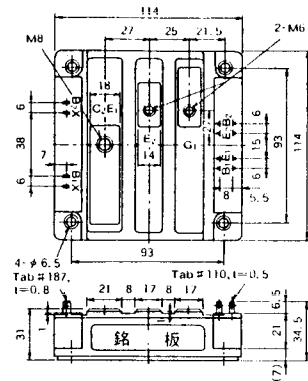
M-10A2A



M-10A2B



M-11A2A



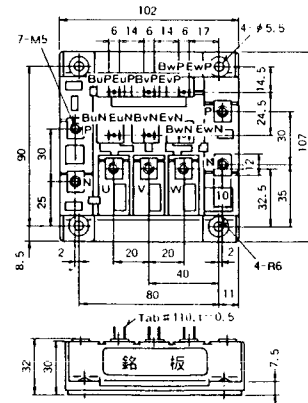
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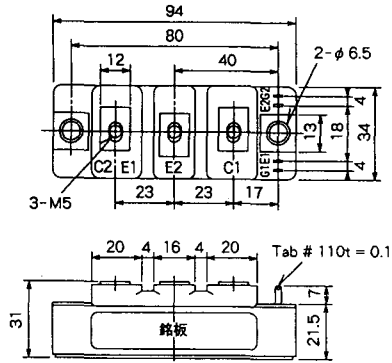
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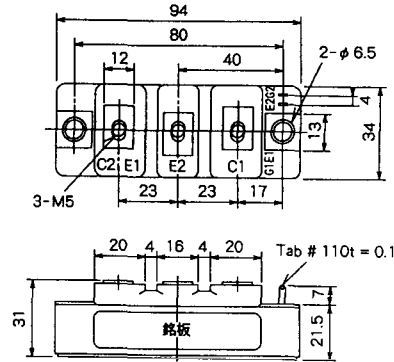
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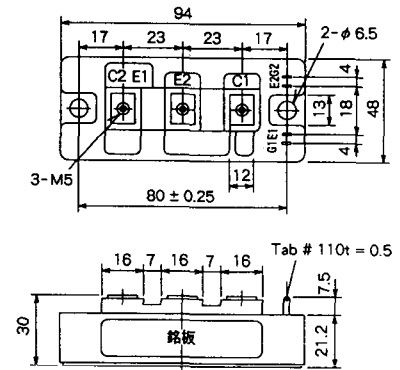
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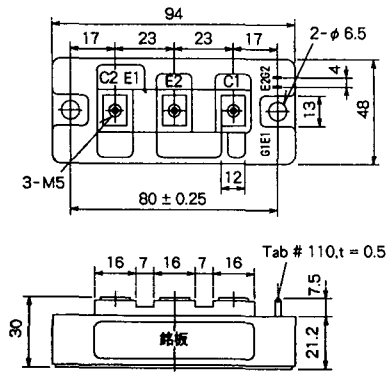
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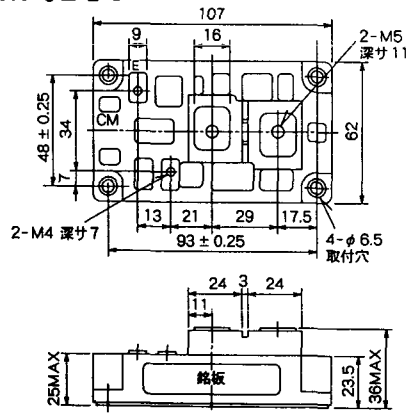
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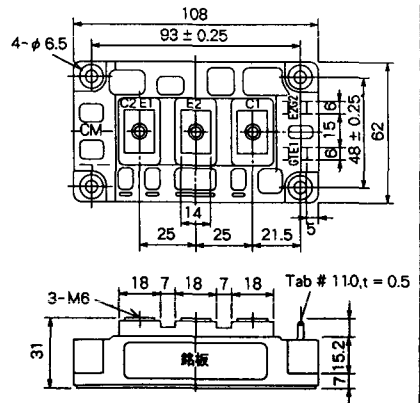
M-4C2B



M-9B1C



M-9D2A



M-9D2B



M-10A2C



H-101



Weight :480g

H-201



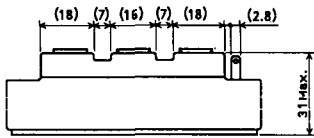
Weight: 200g

H-202



Weight: 360g

LF-J



LF-K

