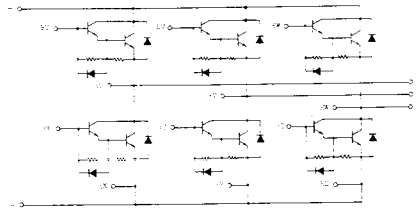


トランジスタ・モジュール (NPN, ダーリントン接続, 4個/6個内蔵)

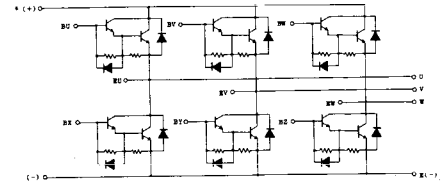
- ダーリントン・トランジスタを4個/6個内蔵
- フリーホイール・ダイオード付
- 電極と金属ケース部が絶縁されている
- ファストン端子による接続
- 直流電流増幅率は80以上(定格電流にて)

■等価回路

EL-1

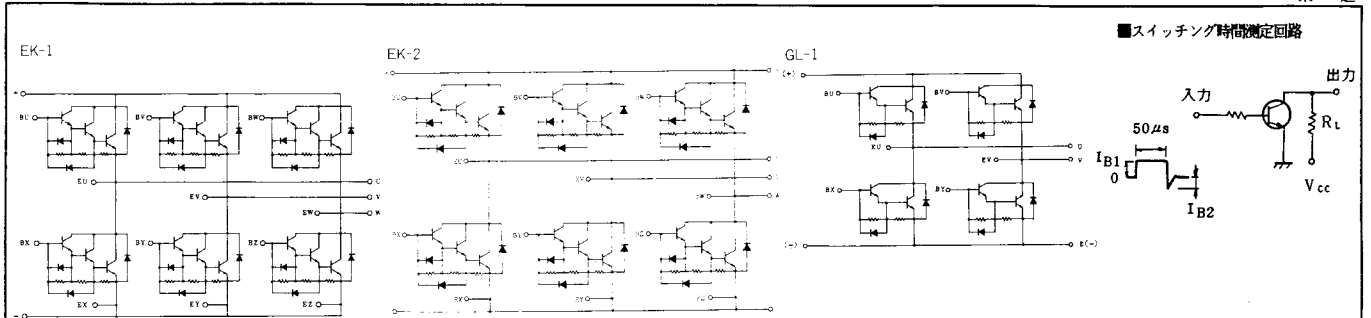


EL-2



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

型名	最大定格 ($T_a = 25^\circ\text{C}$)											電気的特性									
	V_{CE0}	$V_{CEX(SUS)}$	V_{EBO}	I_C	I_{CP}	I_a	I_F	I_{FM}	P_C	T_j	T_{sto}	V_{iso}	I_{CBO}	I_{EBO}	$V_{CE0(SUS)}$	h_{FE}	V_{CE}	I_C			
	(V)	(V)	(V)	(A)	(A)	(A)	(A)	(A)	(W)	($^\circ\text{C}$)	($^\circ\text{C}$)	(V)	(mA)	(mA)	(V)		(V)	(A)			
MG15G4GL1	600	600	6	15	30	1.5	15	30	100	150	-40~125	2500	1.0	600	100	6	450	0.5	100	5	20
MG20G4GL1	600	600 #	6	20	40	2.0	20	40	125	150	-40~125	2500	1.0	600	100	6	450	0.5	100	5	20
MG10G6EL1	500	500	6	10	20	1.0	10	20	80	150	-40~125	2500	1.0	500	100	6	400	0.5	100	5	10
MG10G6EL2	600	600	6	10	20	1.0	10	20	80	150	-40~125	2500	1.0	600	100	6	450	0.5	100	5	10
MG10Q6EK1	1200	1200	7	10	20	1.0	10	20	100	150	-40~125	2500	1.0	1200	200	7	900	0.5	100	5	10
MG15G6EL1	600	600	6	15	30	1.5	15	30	100	150	-40~125	2500	1.0	600	100	6	450	0.5	100	5	15
MG15G6EL2	500	500	6	15	30	1.0	15	30	80	150	-40~125	2500	1.0	500	100	6	400	0.5	100	5	15
MG15H6EL1	600	600	6	15	30	1.5	15	30	100	150	-40~125	2500	1.0	600	100	6	500	0.5	100	5	15
MG15N6EK1	1100	1100	7	15	30	1.5	15	30	150	150	-40~125	2500	1.0	1100	200	7	900	1.0	100	5	15
MG20G6EL1	600	600	6	20	40	2.0	20	40	125	150	-40~125	2500	1.0	600	100	6	450	0.5	100	5	20
MG20G6EL2	600	600	6	20	40	2.0	20	40	100	150	-40~125	2500	1.0	600	100	6	400	0.5	100	5	20
MG20Q6EK1	1200	1200	7	20	40	2.0	20	40	200	150	-40~125	2500	1.0	1200	200	7	900	0.5	100	5	20
MG25N6EK1	1100	1100	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1100	200	7	900	0.5	100	5	25
MG30G6EL1	600	600	6	30	60	3.0	30	60	250	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	30
MG30G6EL2	600	600	6	30	60	2.0	30	60	200	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	30
MG50G6EL1	600	600	6	50	100	5.0	50	100	300	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	50
MG75G6EL1	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	450	0.5	80	5	75
MG75H6EL1	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	500	0.5	80	5	75



■スイッチング時間測定回路

注3. スイッチング時間の * 印はtyp.値.

(T _a =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}	R _L	V _F	t _{rr}		di/dt	R _{th(j-c)} (°C/W)							
V _{CE}	V _{BE}			t _{on}	t _{stg}	t _f						I _F	I _F		V _{BE}	トランジスタ部					ダイオード部	最大
最大	最大	(A)	(A)	最大	最大	最大	(A)	(A)	(V)	(Ω)	最大	(A)	(V)	(A/µs)	最大	最大						
2.0	2.5	15	0.4	1	12	2	0.4	-0.4	300	20	1.6	15	0.7	15	-2	60	1.25		GL-1	2-48A3	単相ブリッジ接続	MG15G4GL1
2.0	2.5	20	0.5	1	12	2	0.5	-0.5	300	15	1.6	20	0.7	20	-2	60	1.0		GL-1	2-48A3A	単相ブリッジ接続	MG20G4GL1
2.0	2.5	10	0.25	1	12	2	0.25	0.25	300	30	1.6	10	0.7	10	-2	60	1.56		EL-2	2-64A2A	三相ブリッジ接続	MG10G6EL1
2.0	2.5	10	0.3	1	12	2	0.3	-0.3	300	30	1.6	10	0.7	10	-2	60	1.56		EL-2	2-64A2A	三相ブリッジ接続	MG10G6EL2
2.5	3.5	10	0.2	2	14	6	0.2	-0.6	600	60	1.8	10	2.0	10	-3	60	1.25	3.6	EK-1	2-72A3A	三相ブリッジ接続	MG10G6EK1
2.0	2.5	15	0.4	1	12	2	0.4	-0.4	300	20	1.6	15	0.7	15	-2	60	1.25		EL-2	2-64A2A	三相ブリッジ接続	MG15G6EL1
2.0	2.5	15	0.4	1	10	3	0.4	-0.4	300	20	1.7	15	0.7	15	-2	60	1.56		EL-2	2-64A2A	三相ブリッジ接続	MG15G6EL2
2.0	2.5	15	0.4	1	12	2	0.4	-0.4	300	20	1.7	15	0.7	15	-2	60	1.25	2.8	EL-2	2-64A2A	三相ブリッジ接続	MG15HGEL1
2.5	3.5	15	0.3	2	11	6	0.3	-0.9	600	40	1.5	15	1.0	15	-3	60	0.83	1.3	EK-2	2-94B1A	三相ブリッジ接続	MG15NGEK1
2.0	2.5	20	0.5	1	12	2	0.5	-0.5	300	15	1.6	20	0.7	20	-2	60	1.0		EL-2	2-64A2A	三相ブリッジ接続	MG20G6EL1
2.0	2.5	20	0.5	1	10	3	0.5	-0.5	300	15	1.7	20	0.7	20	-2	60	1.25		EL-2	2-64A2A	三相ブリッジ接続	MG20G6EL2
2.5	3.5	20	0.4	2	14	6	0.4	-1.2	600	30	1.8	20	2.0	20	-3	60	0.625	1.8	EK-1	2-72A3A	三相ブリッジ接続	MG20G6EK1
2.5	3.5	25	0.5	2	14	6	0.5	-1.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	EK-2	2-94B1A	三相ブリッジ接続	MG25NGEK1
2.0	2.5	30	0.6	1	12	2	0.6	-0.6	300	10	1.5	30	1.0	30	-3	100	0.5	1.8	EL-2	2-94A2A	三相ブリッジ接続	MG30G6EL1
2.0	2.5	30	0.6	1	12	3	0.6	-0.6	300	10	1.6	30	0.7	30	-2	60	0.625	1.8	EL-1	2-72A4A	三相ブリッジ接続	MG30G6EL2
2.0	2.5	50	1.0	1	12	2	1.0	-1.0	300	6	1.5	50	1.0	50	-3	100	0.41	1.3	EL-2	2-94A2A	三相ブリッジ接続	MG50G6EL1
2.0	2.5	75	2.0	2	12	3	2.0	-2.0	300	4	1.7	75	1.0	75	-3	100	0.36	1.3	EL-2	2-94A2A	三相ブリッジ接続	MG75G6EL1
2.0	2.5	75	2.0	2	12	4	2.0	-3.0	300	4	1.7	75	1.0	75	-3	100	0.35	1.3	EL-2	2-94A2A	三相ブリッジ接続	MG75HGEL1

FD-9



FD-10



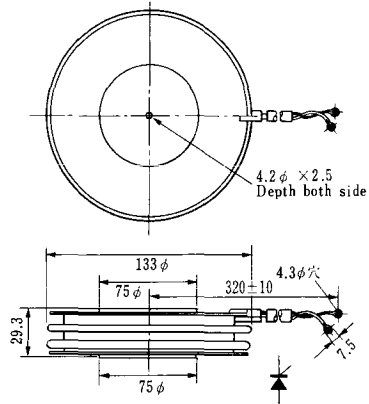
FD-11

FD-12





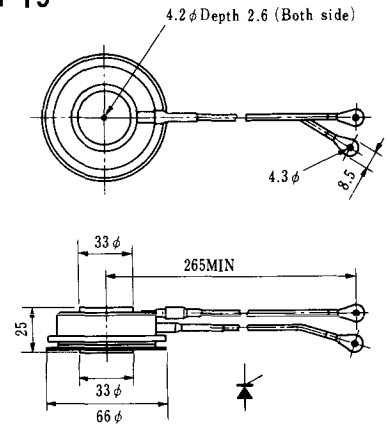
H-17



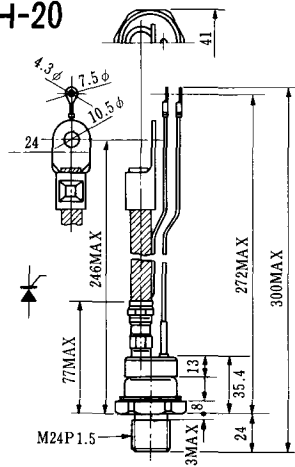
H-18



H-19



H-20



H-21



H-22

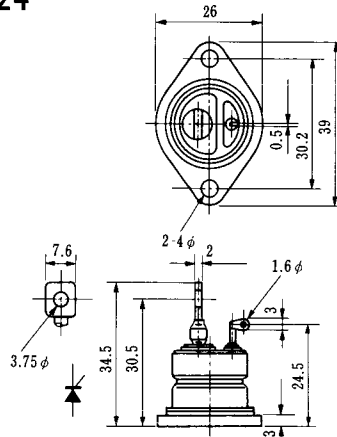


H-23

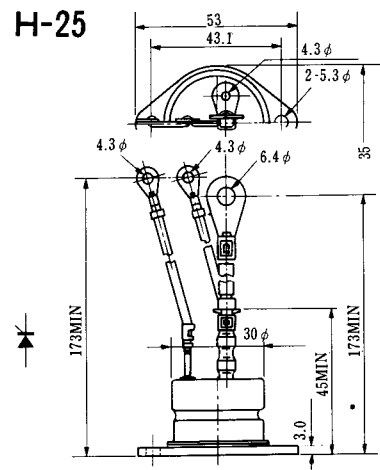


① アノード
② カソード
③ ゲート

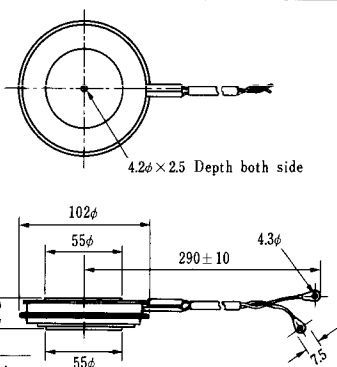
H-24



H-25



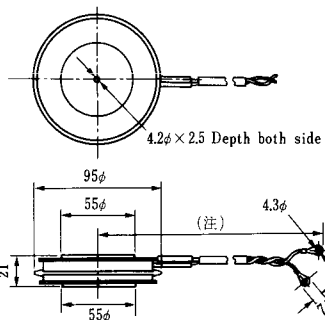
H-26



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

CA12	
------	--

H-27

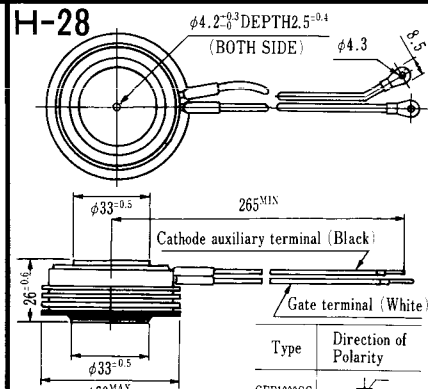


Type	Direction of polarity
------	-----------------------

CF11V	
-------	--

(注) CC11V : 400 ± 10
CF11V : 250 ± 10

H-28

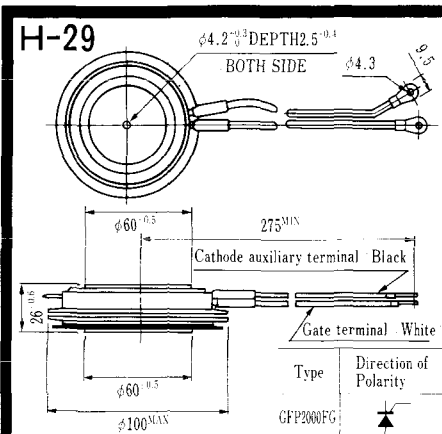


Type	Direction of Polarity
------	-----------------------

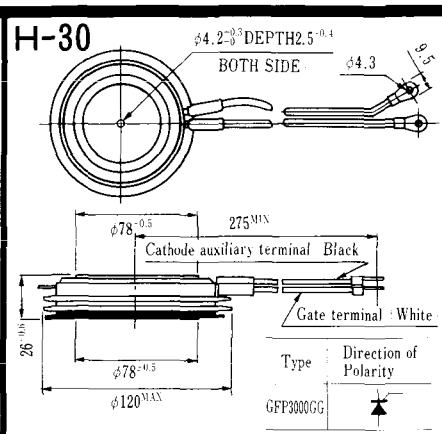
GFP100GG	
----------	--

Weight: 360(g)

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



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



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

M-1



M-2



M-3



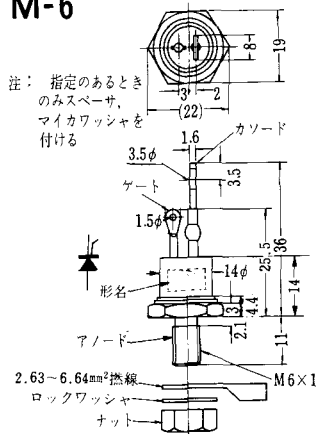
M-4



M-5



M-6



M-7



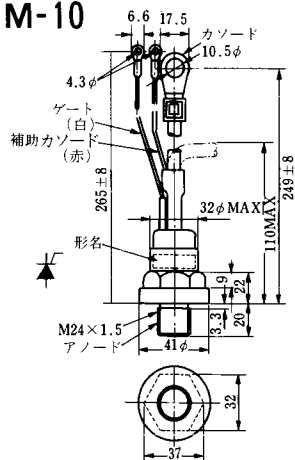
M-8



M-9



M-10



M-11



M-12



M-13



M-14



M-15



M-16





M-25



M-26



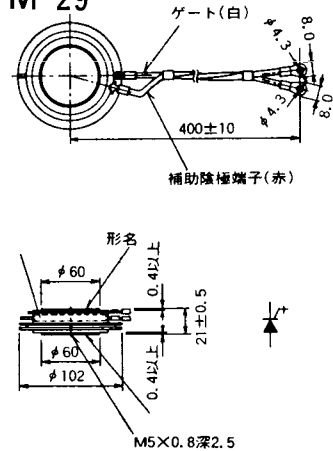
M-27



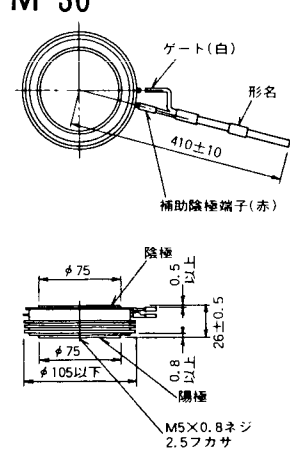
M-28



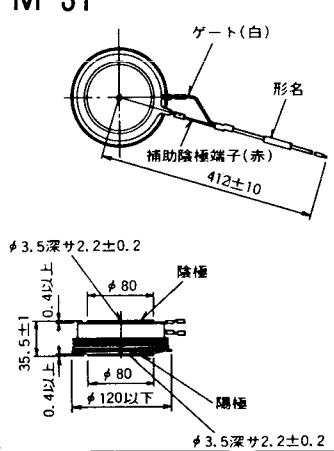
M-29



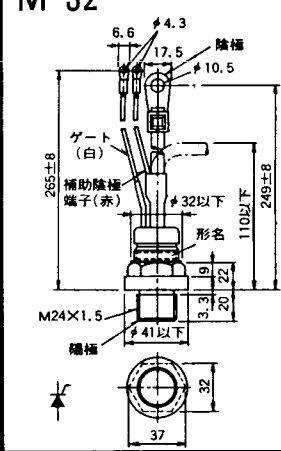
M-30



M-31



M-32



M-33



M-34



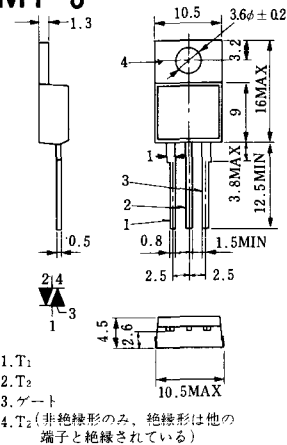
MT-1



MT-2



MT-3



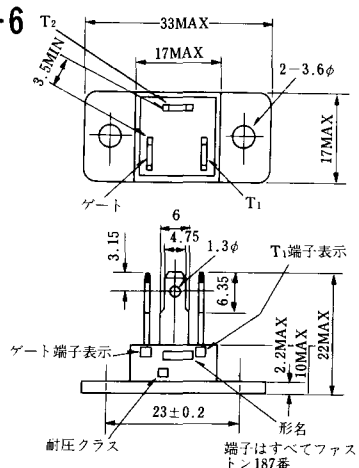
MT-4



MT-5



MT-6



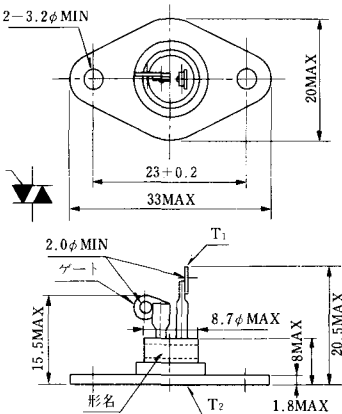
MT-7



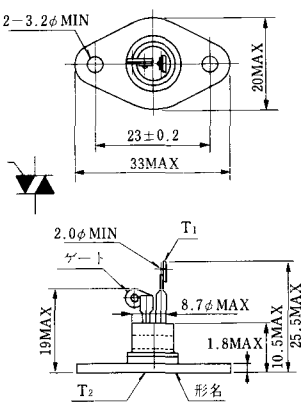
MT-8



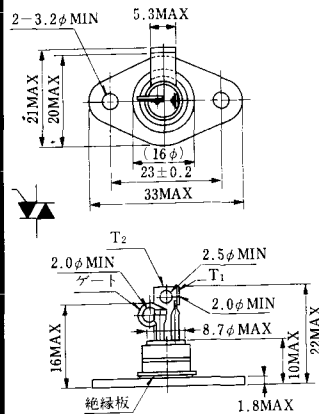
MT-9



MT-10



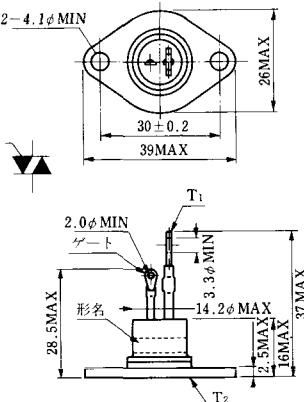
MT-11



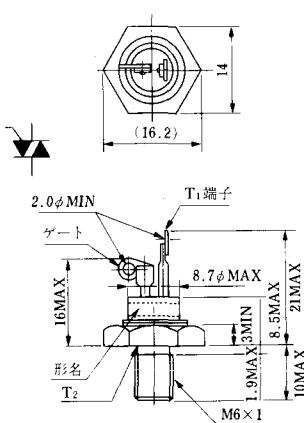
MT-12



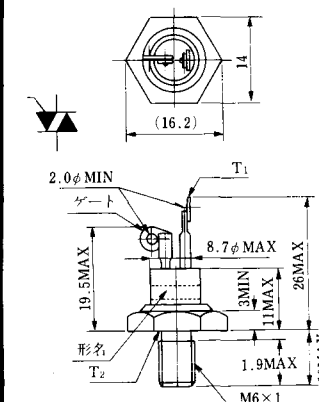
MT-13



MT-14



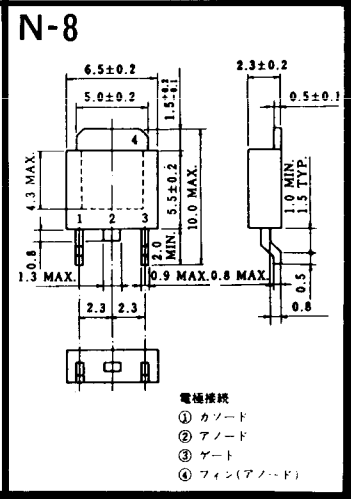
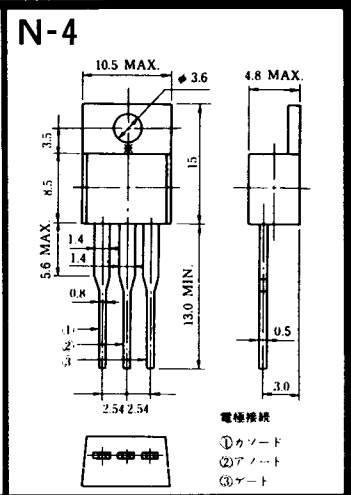
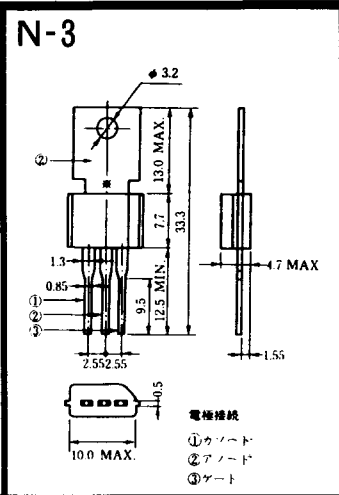
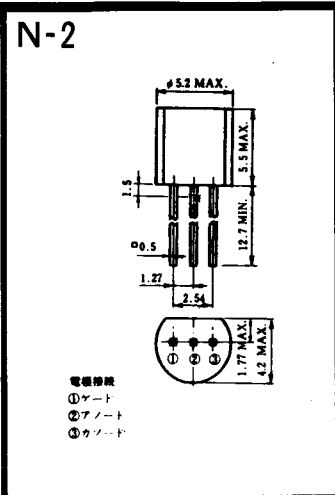
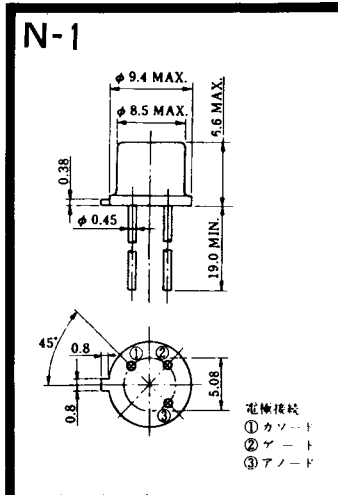
MT-15



MT-24



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



NI-1



NI-2

29RD



NI-3

39RC
59RC
39RF
59RF



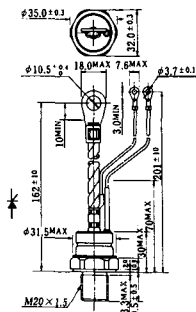
NI-4

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



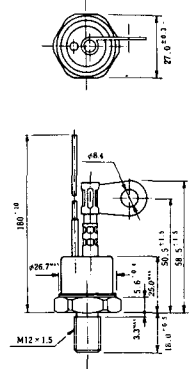
NI-7

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

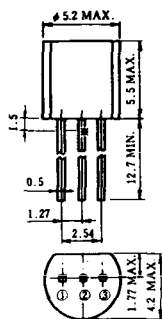
2001PGB^r JE



NI-25

NI-26

NT-1



電極接続
① T₁
② ゲート
③ T₂

NT-2



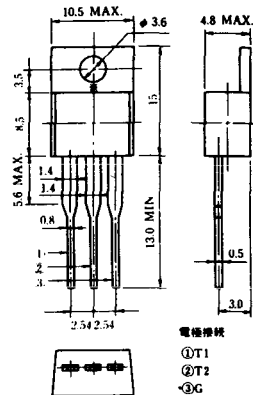
電極接続
① T₁
② ゲート
③ T₂

NT-3



電極接続
① T₁
② T₂
③ ゲート

NT-4



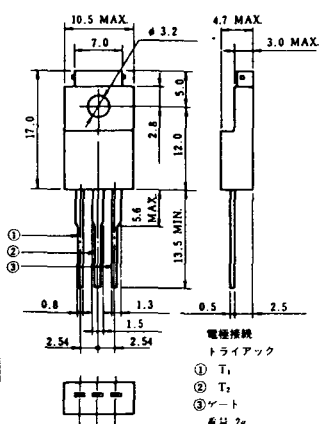
電極接続
① T₁
② T₂
③ G

NT-5



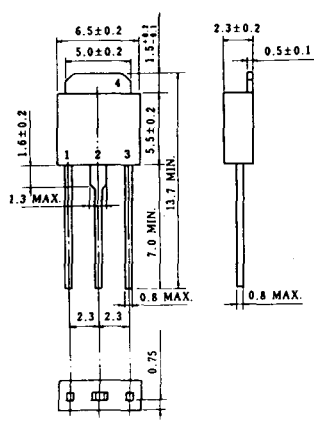
電極接続
トライアック
① T₁
② T₂
③ ゲート
④ G

NT-6

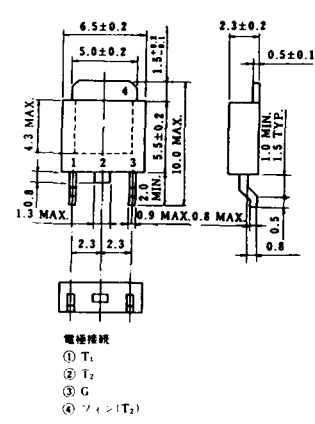


電極接続
トライアック
① T₁
② T₂
③ ゲート
④ G
⑤ 2k

NT-7



NT-8



電極接続
① T₁
② T₂
③ G
④ ソリッド(T₂)

SA-1



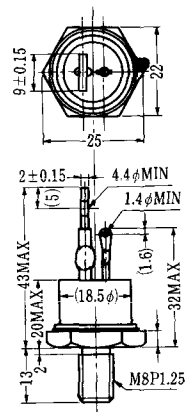
SA-2



SA-3



SA-4



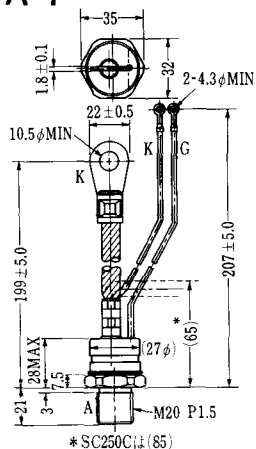
SA-5



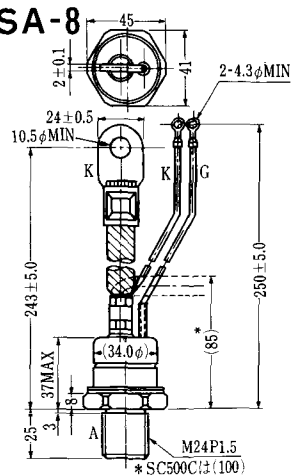
SA-6



SA-7



SA-8

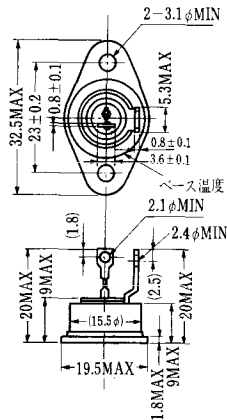


SAT-1



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

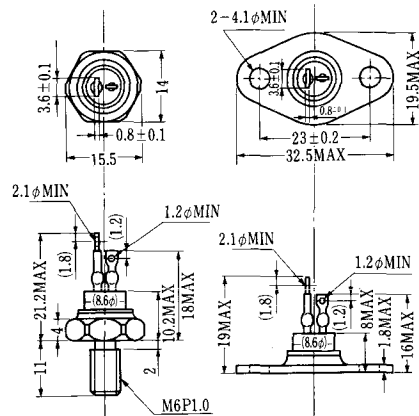
SAT-2



SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



SAT-9



SAT-10



SAT-11

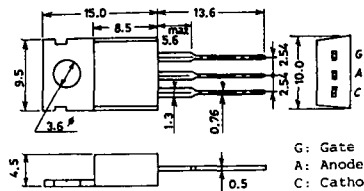


SY-1 (1096A)



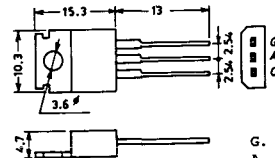
C: Cathode
A: Anode
G: Gate

SY-2 (1151)



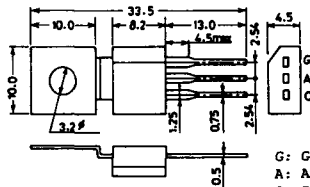
G: Gate
A: Anode
C: Cathode

SY-3 (1104)



G: Gate
A: Anode
C: Cathode

SY-4 (1150)



G: Gate
A: Anode
C: Cathode

1097A



G: Gate

1102



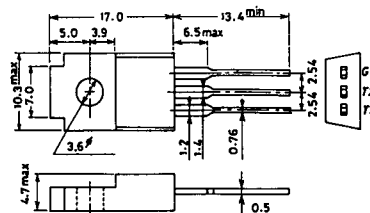
1141



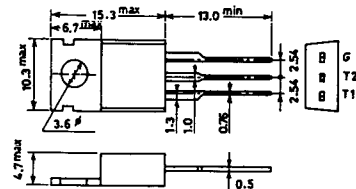
1142



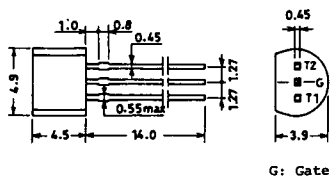
1144



1155

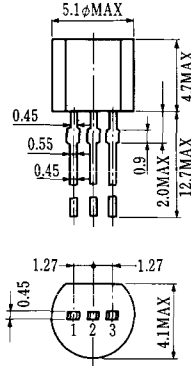


1192A



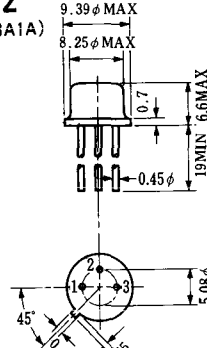
G: Gate

T-1 (13-5A1A)



- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



1. カソード
2. ゲート
3. アノード(ケース)

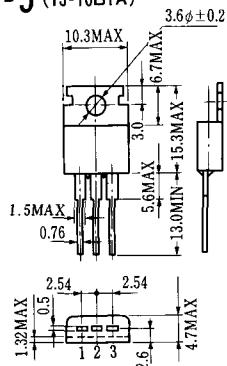
T-3 (13-8C1A)



M5×0.8
アノード

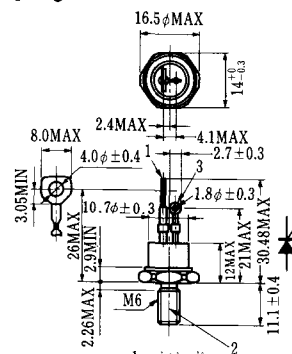
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



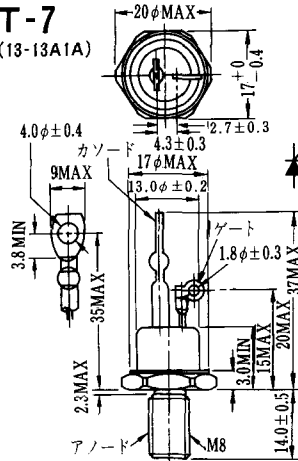
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



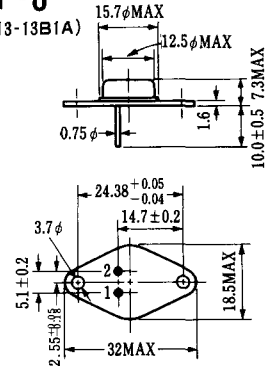
- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)



アノード
M8

T-8 (13-13B1A)



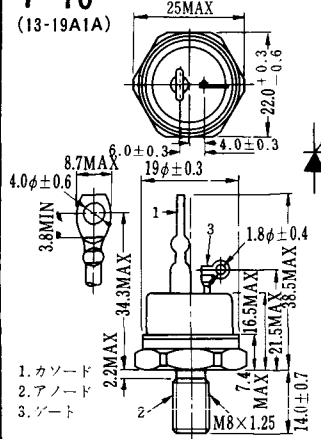
1. ゲート
2. カソード
3. アノード(ケース)

T-9 (13-14A1A)



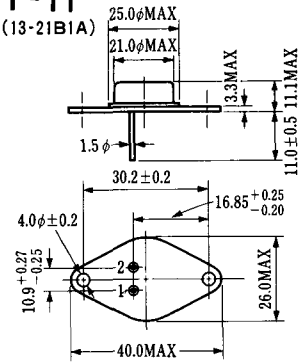
1. ゲート
2. カソード
- アノード(ケース)

T-10 (13-19A1A)



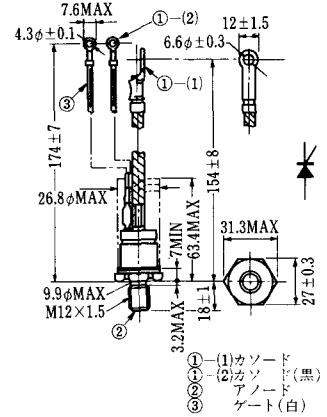
1. カソード
2. アノード
3. ゲート

T-11 (13-21B1A)



1. ゲート
2. カソード
- アノード(ケース)

T-12 (13-27B1B)



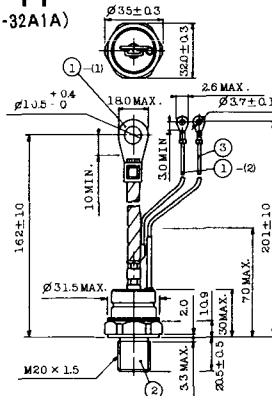
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-13 (13-27C1A)



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

T-14 (13-32A1A)



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

T-15 (13-35C1B)



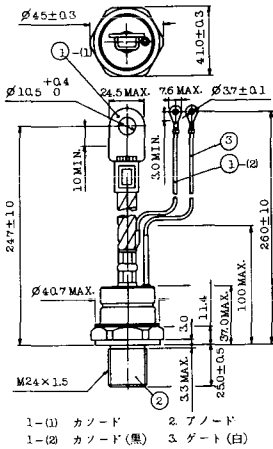
- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-16 (13-40B1A)

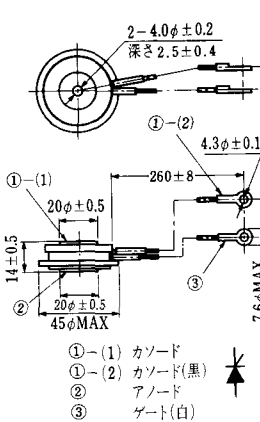


- ① (1) カソード
- ① (2) カソード(黒)
- ② アノード
- ③ ゲート(白)

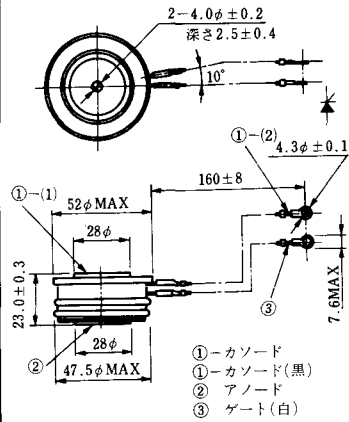
T-17 (13-42A1A)



T-18 (13-45D1A)



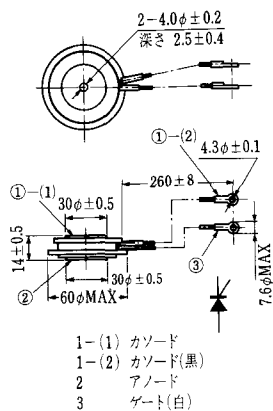
T-19 (13-52B1A)



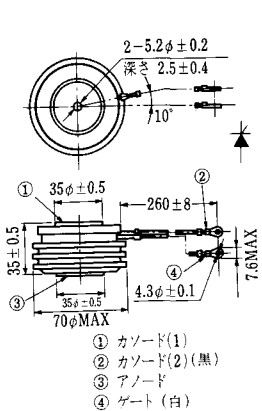
T-20 (13-52C1A)



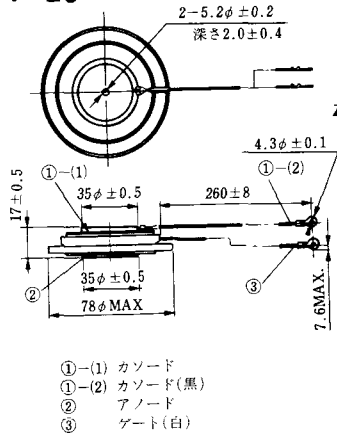
T-21 (13-60A1A)



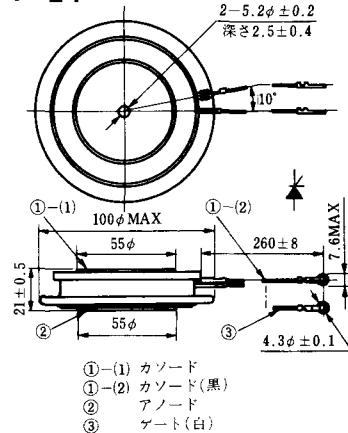
T-22 (13-70C1A)



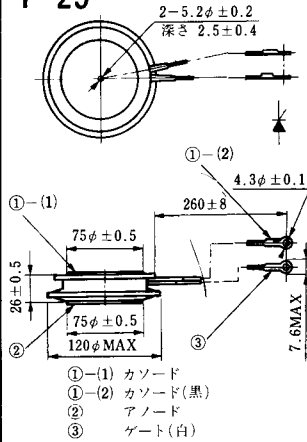
T-23 (13-78A1A)



T-24 (13-100C1A)



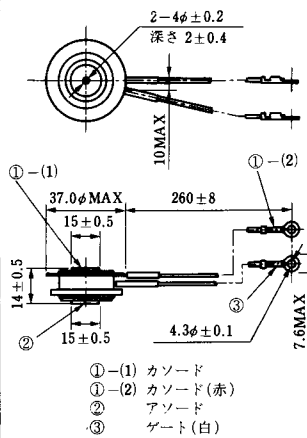
T-25 (13-120A2A)



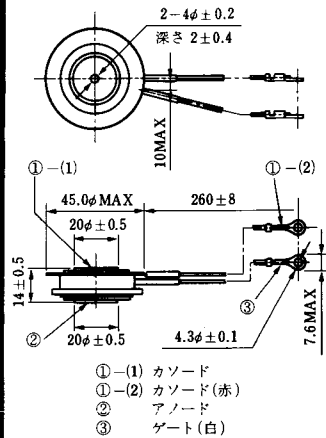
T-26 (13-150A1A)



T-27 (13-37A1A)



T-28 (13-45E1A)



T-29 (13-51A1A)



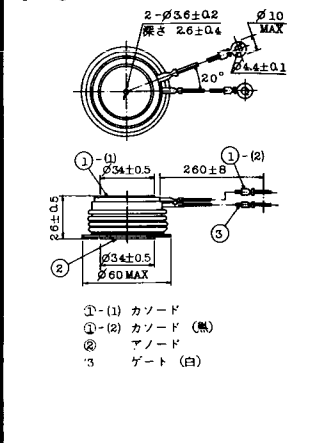
T-30 (13-57A1A)



T-31 (13-100E1A)



T-32 (13-60E3A)



T-41 (13-28A2A)



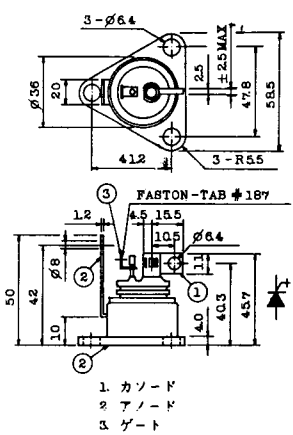
T-42 (13-45F1A)



T-43 (13-60E2A)



T-44 (13-36A1A)



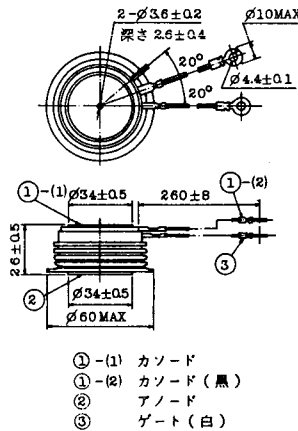
T-45 (13-51B1A)



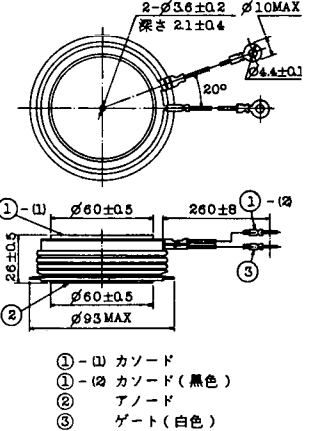
T-46 (13-36B1A)



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)



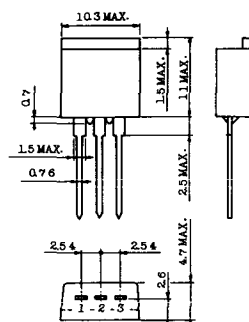
- 1 カソード
- 2 アノード
- 3 ゲート

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)



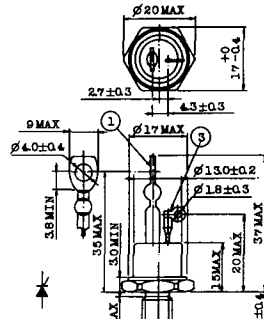
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



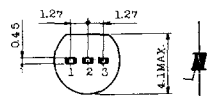
- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



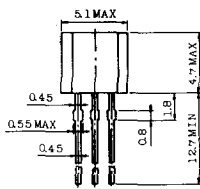
- 1 カソード
- 2 アノード
- 3 ゲート

TT-1



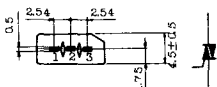
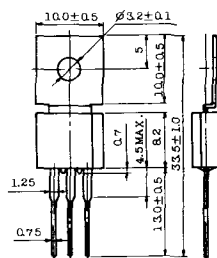
- 1 ゲート
- 2 T₂
- 3 T₁

TT-2



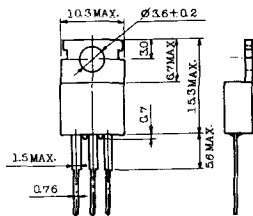
- 1 T₁
- 2 ゲート
- 3 T₂

TT-3



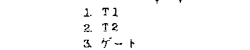
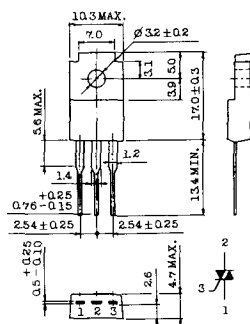
- 1 T₁
- 2 T₂
- 3 ゲート

TT-4



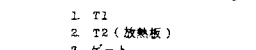
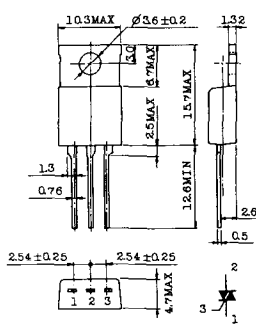
- 1 T₁
- 2 T₂
- 3 ゲート

TT-5



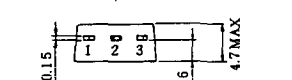
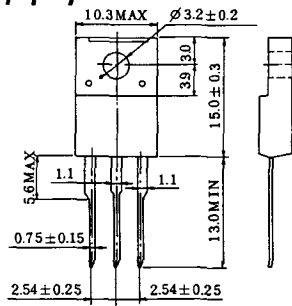
- 1 T₁
- 2 T₂
- 3 ゲート

TT-6



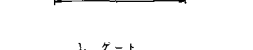
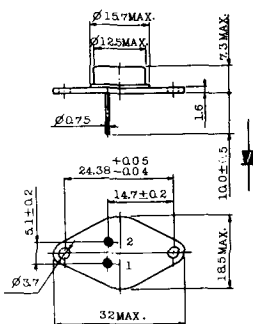
- 1 T₁
- 2 T₂ (放熱板)
- 3 ゲート

TT-7



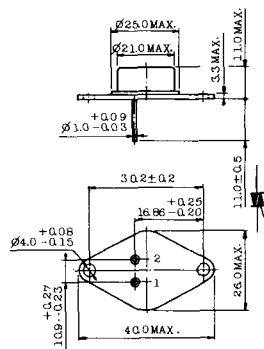
- 1 T₁
- 2 T₂
- 3 ゲート

TT-8



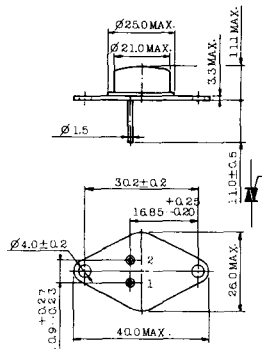
- 1 ゲート
- 2 T₁
- T₂ (ケース)

TT-9



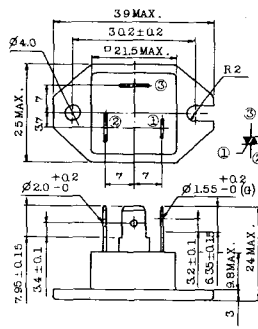
1. ゲート
2. T₁
3. T₂ (ケース)

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

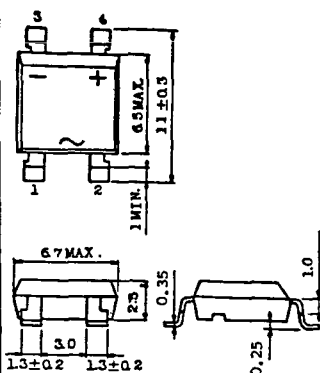
- ① ゲート (フーストン端子 #187)
- ② T₁ (" #250)
- ③ T₂ (" #250)

TT-13



- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-14



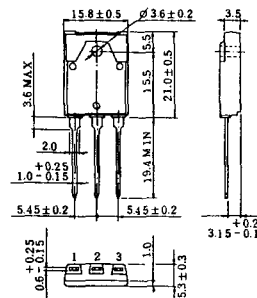
- 1, 2: T₂
- 3: GATE
- 4: T₁

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

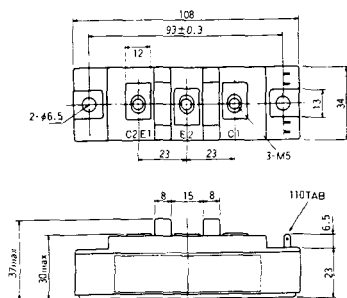


- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

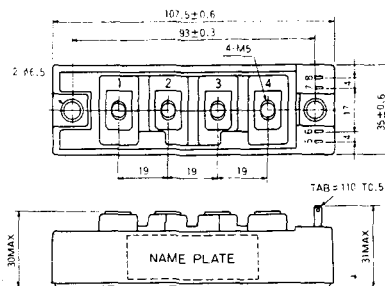
S-108B1A



S-108B1B



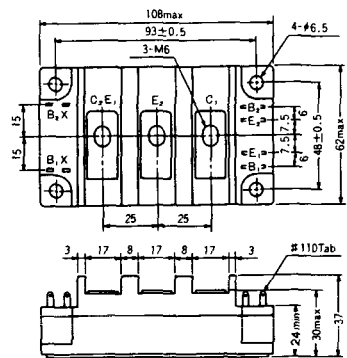
S-108B1C



S-108B2A



S-108B2B



2-22B1A



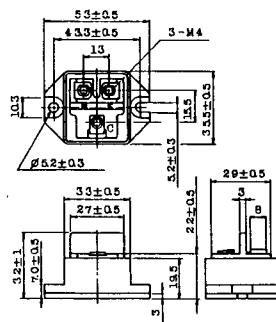
2-27A4A



2-33C1A



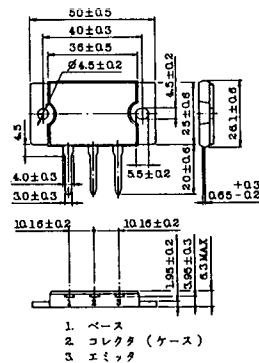
2-33D1A



2-33F1A



2-37A1A



1. スイス
2. コレクタ (ケース)
3. ハミツク

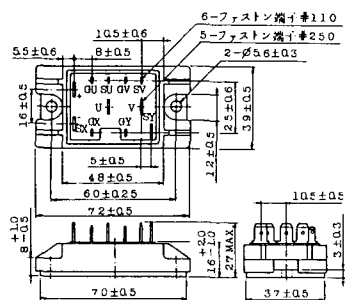
2-48A3A



2-48A3B



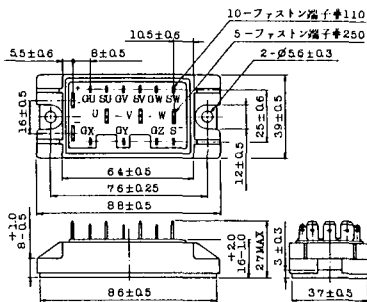
2-48A4A



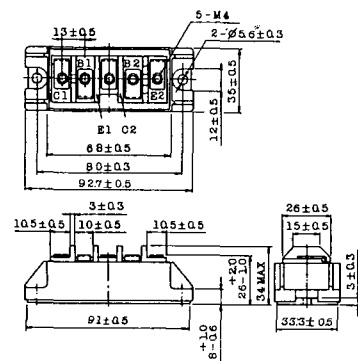
2-64A2A



2-64A2B



2-68A2A



2-68B2A



2-68C1A



2-68D2A



2-72A3A



2-80A1A



2-80B1A



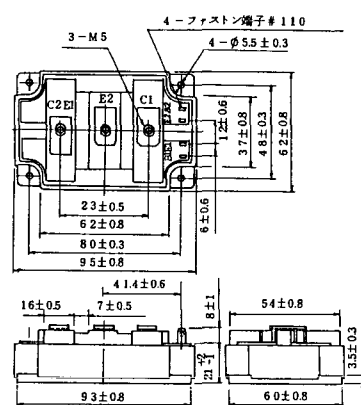
2-94D1A



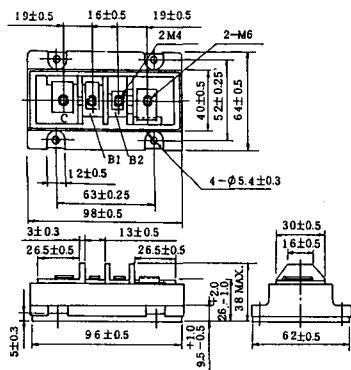
2-96A3A



2-96A4A



2-98B1A



2-98C2A



2-108A2A



2-108B1A



2-109A3A



2-109A4A



2-109B3A



2-109B4A



M-101



M-102



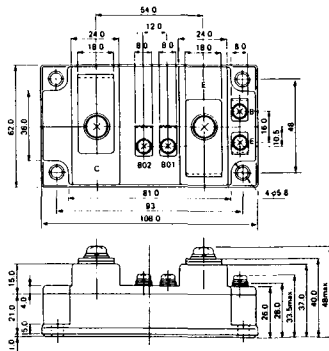
M-103



M-104



M-105



M-106



M-107



M-116



M-201



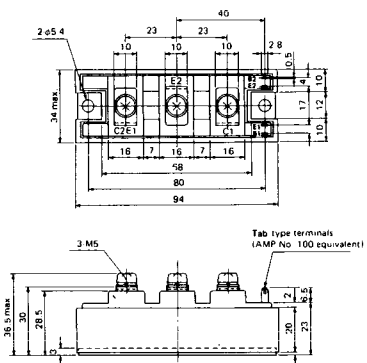
M-202



M-203



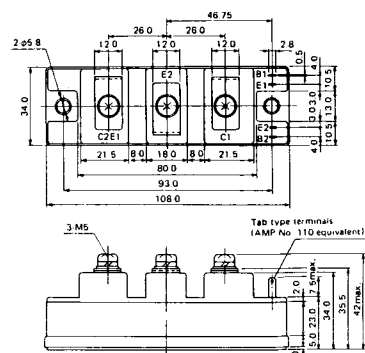
M-204



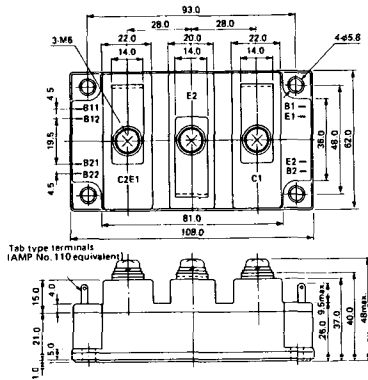
M-205



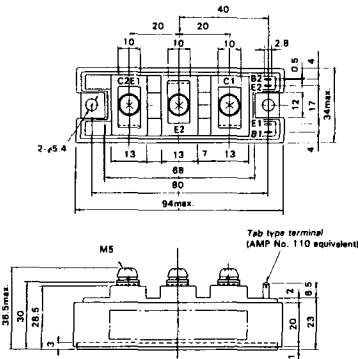
M-206



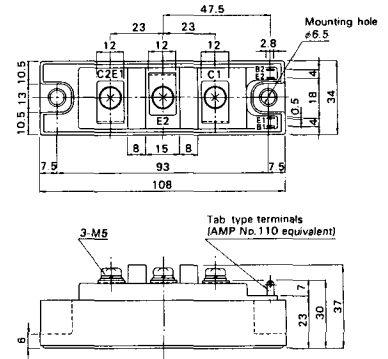
M-207



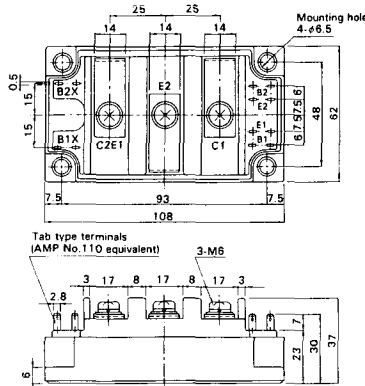
M-208



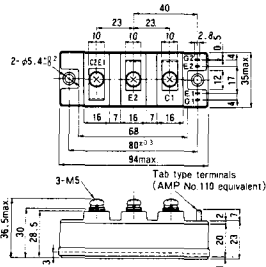
M-209



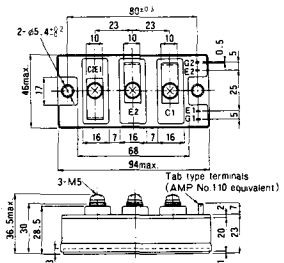
M-210



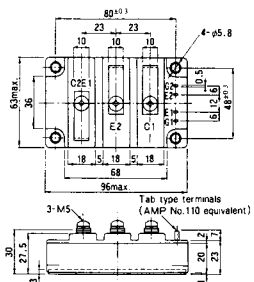
M-211



M-212



M-213

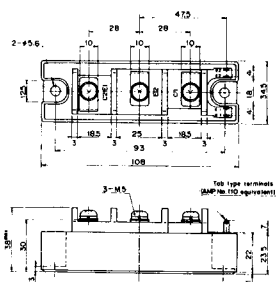


M-214

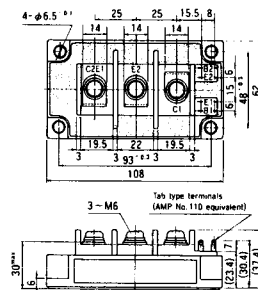
M-215



M-216



M-217



M-218



M-219



M-607



M-608



M-609



M-610



M-616



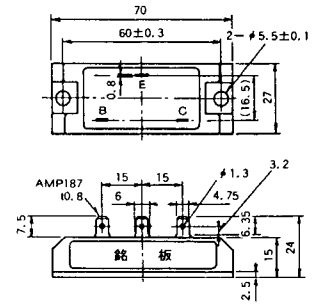
M-1A1A



M-2A1A



M-2B1A



M-2B2A



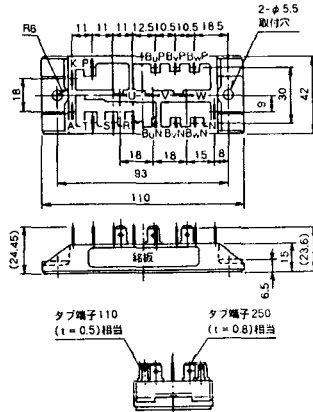
M-2C2A



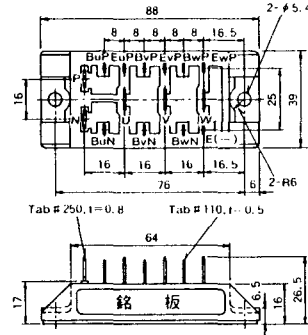
M-2D4A



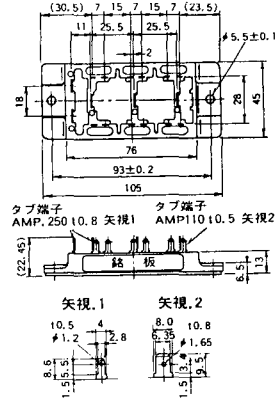
M-2E6A



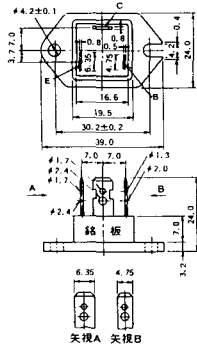
M-2F6A



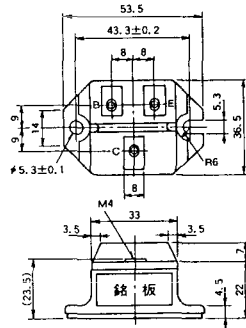
M-2G6A



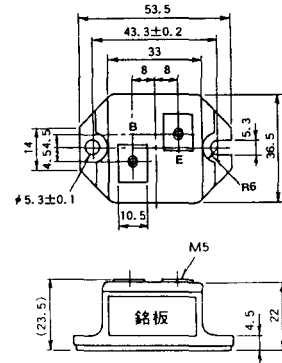
M-3A1A



M-3B1A



M-3B1B



M-3C1A



M-3D6A



M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



M-7B1A



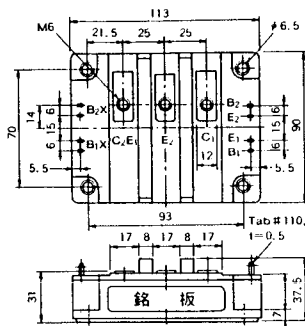
M-8A1A



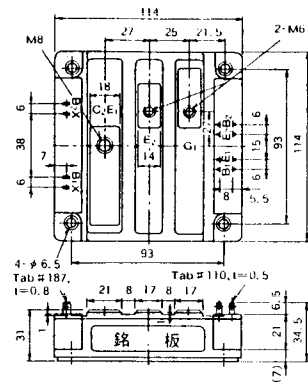
M-10A2A



M-10A2B



M-11A2A



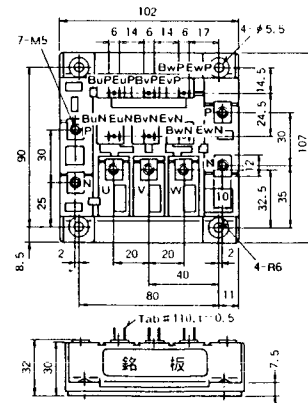
M-12A6A



M-12B6A



M-12B6B



M-9D2B



M-10A2C



H-101



Weight :480g

H-201



Weight: 200g

H-202



Weight: 360g

