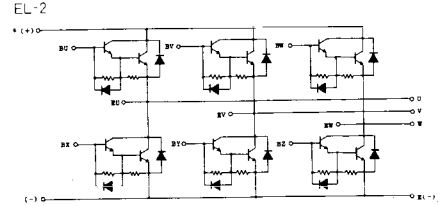
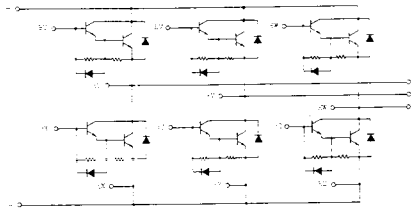


トランジスタ・モジュール (NPN, ダーリントン接続, 4個/6個内蔵)

- 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)

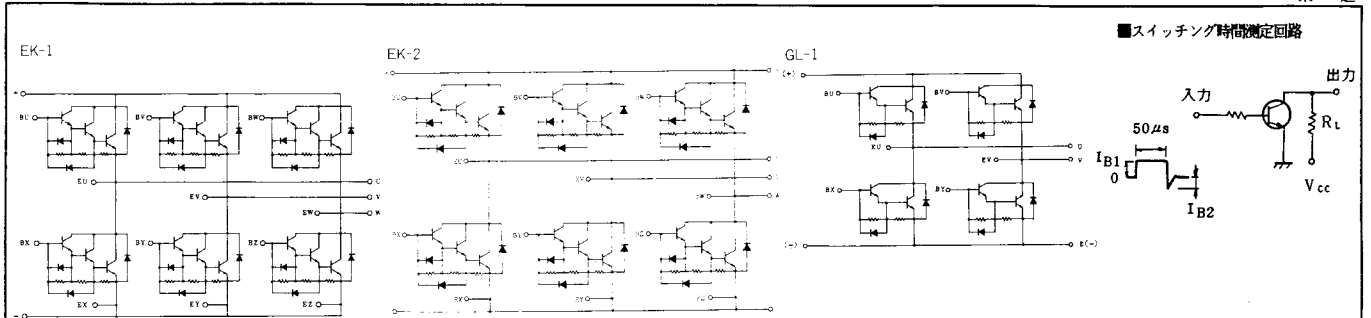
■等価回路

EL-1



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	15
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)	(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-1



FD-2



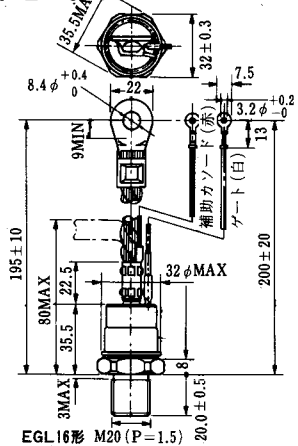
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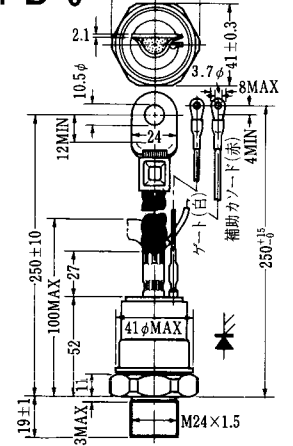
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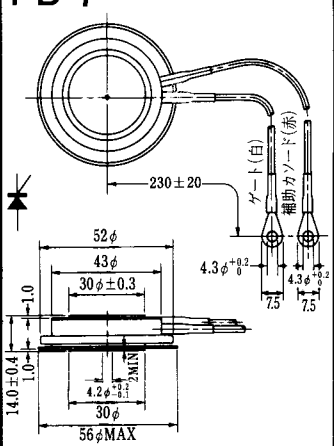
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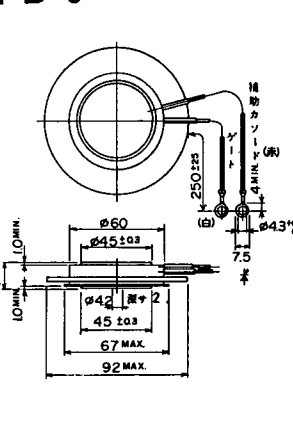
FD-6



FD-7



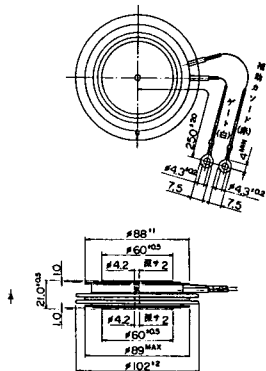
FD-8



FD-9



FD-10



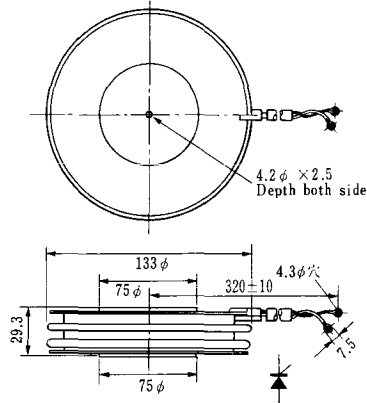
FD-11

FD-12

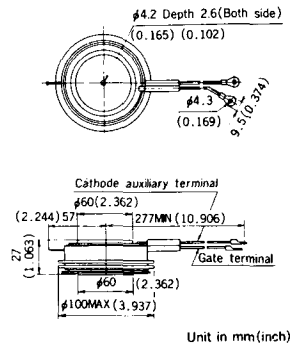




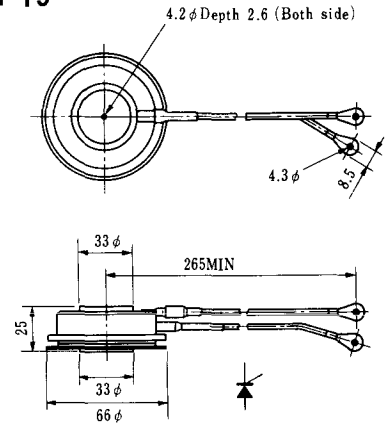
H-17



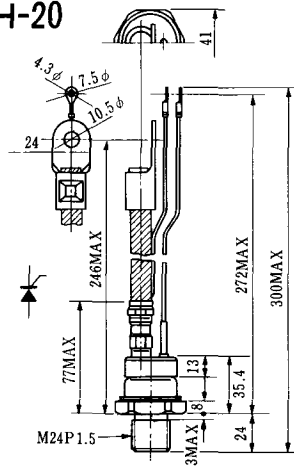
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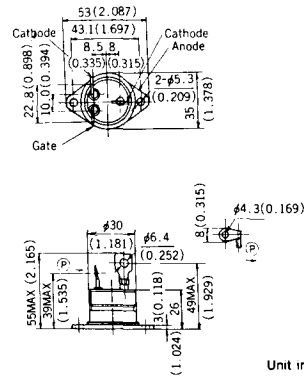
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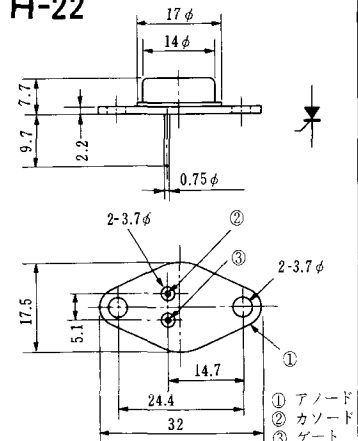
H-20



H-21



H-22



H-23

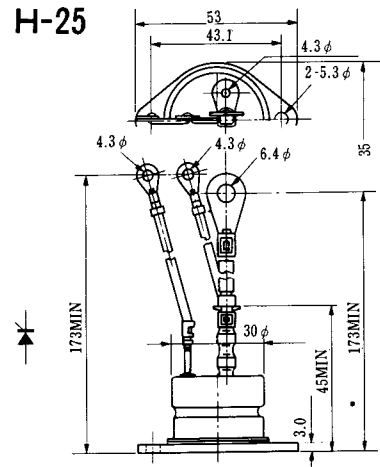


① アノード
② カソード
③ ゲート

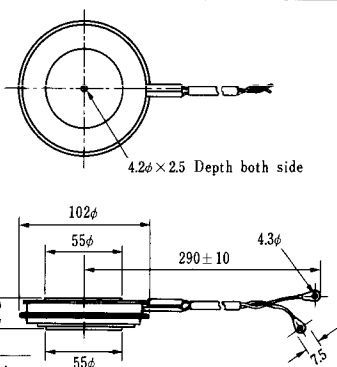
H-24



H-25



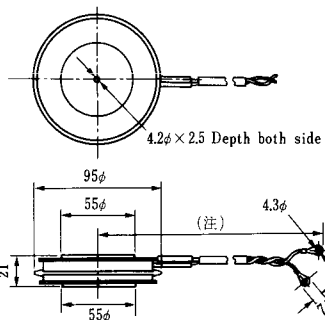
H-26



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

CA12	
------	--

H-27

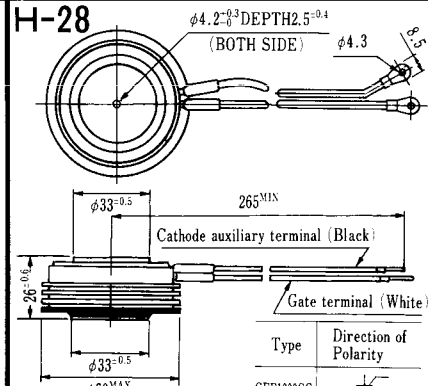


Type	Direction of polarity
------	-----------------------

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

H-28



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

GFP100GG	
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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



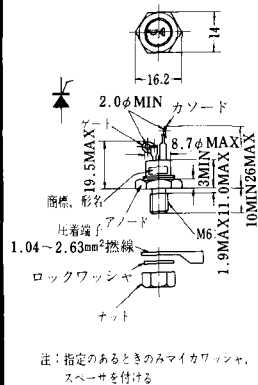
M-3



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



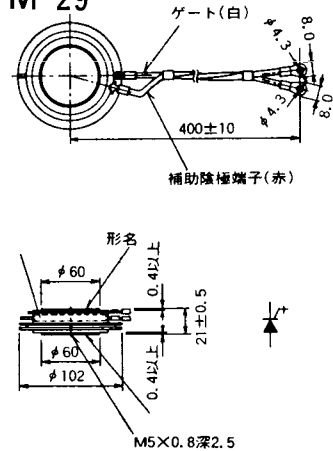
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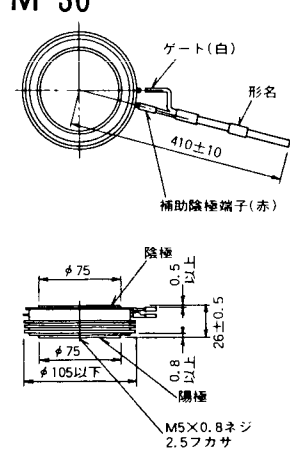
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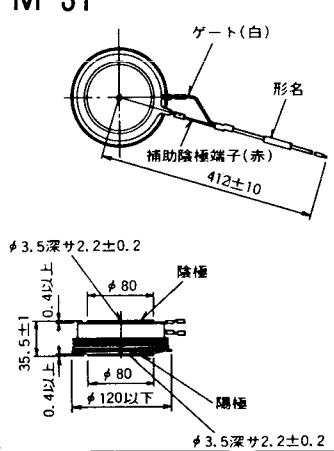
M-29



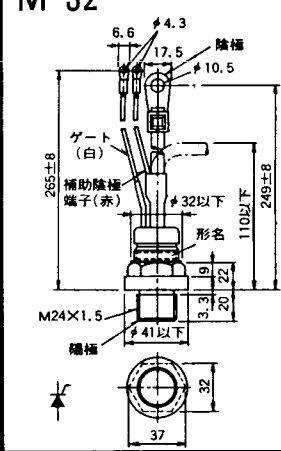
M-30



M-31



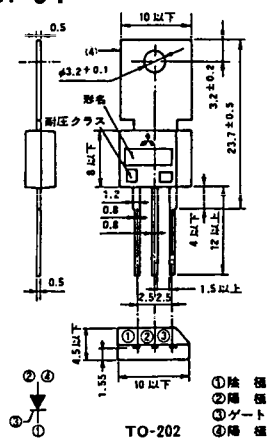
M-32



M-33



M-34



MT-1



MT-2



MT-3



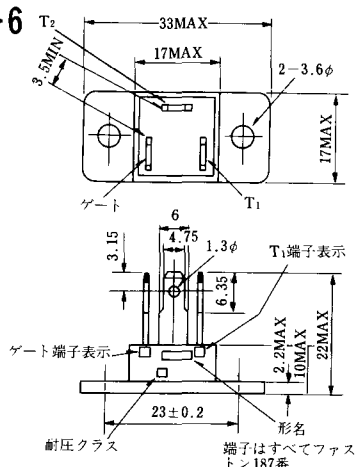
MT-4



MT-5



MT-6



MT-7



1. T₁
2. T₂
3. ゲート
4. T₂ (非絶縁形のみ、絶縁形は他の端子と絶縁されている)

端子はすべてファス
マン187番

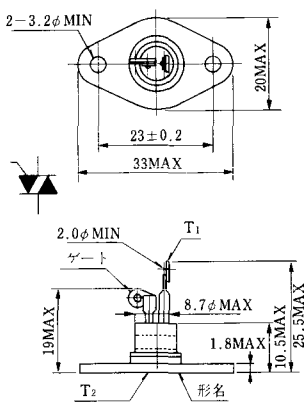
MT-8



MT-9



MT-10



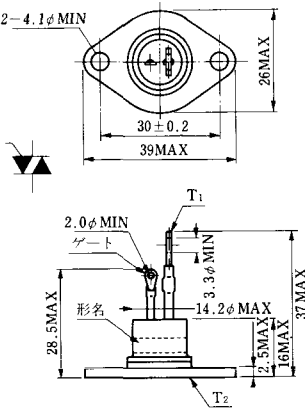
MT-11



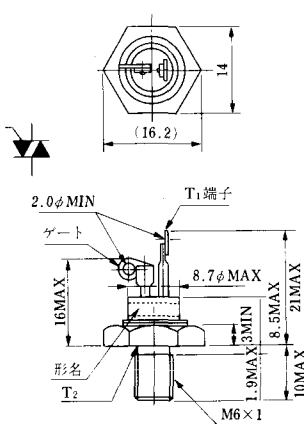
MT-12



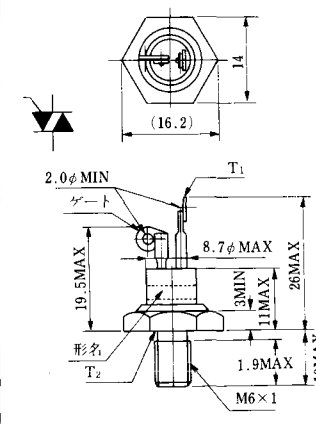
MT-13



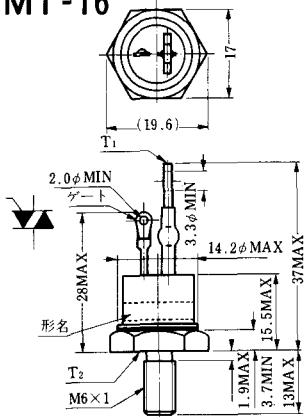
MT-14



MT-15



MT-16

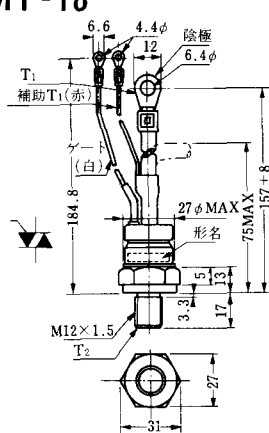


MT-17

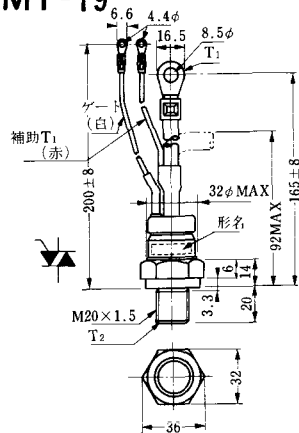


端子詳細図

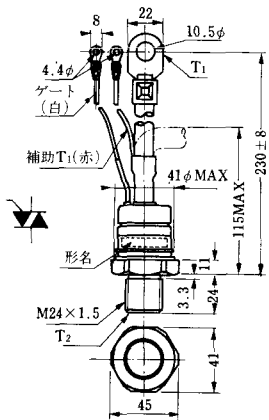
MT-18



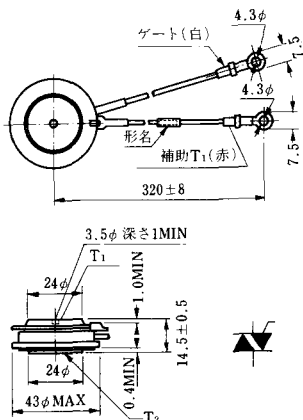
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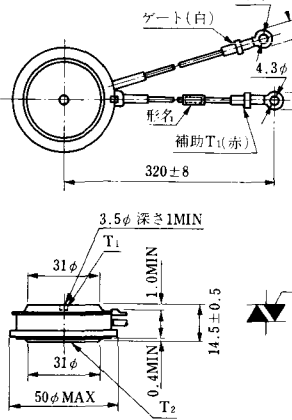
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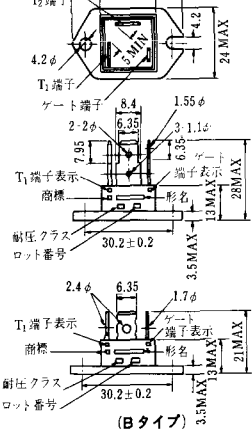
MT-21

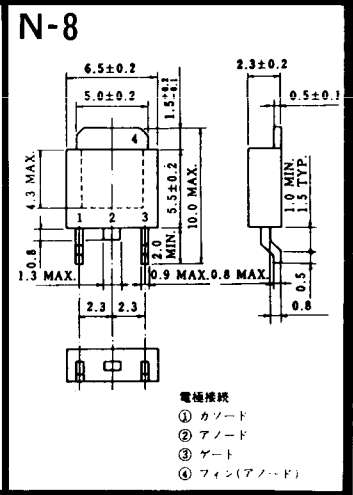
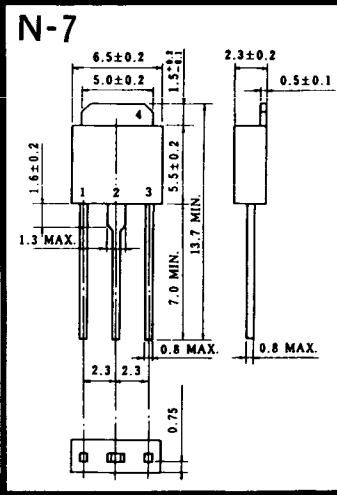
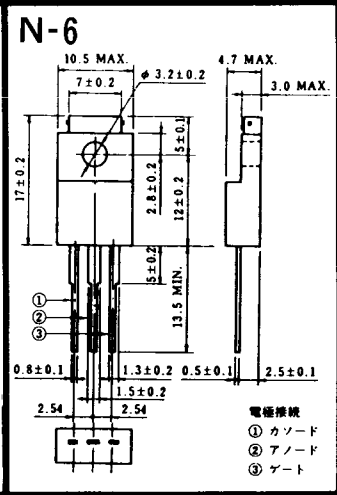
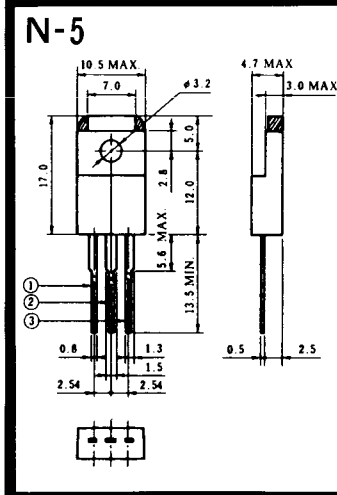
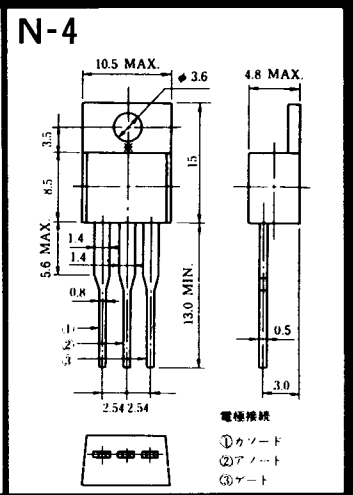
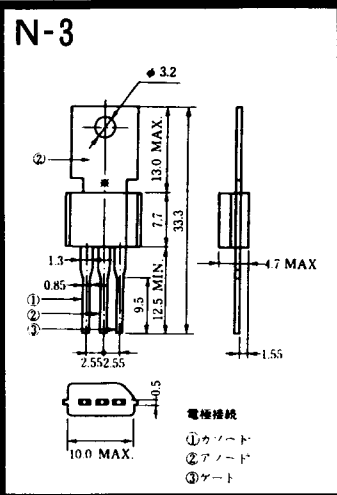
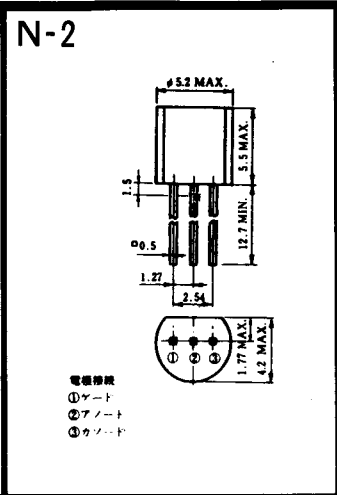
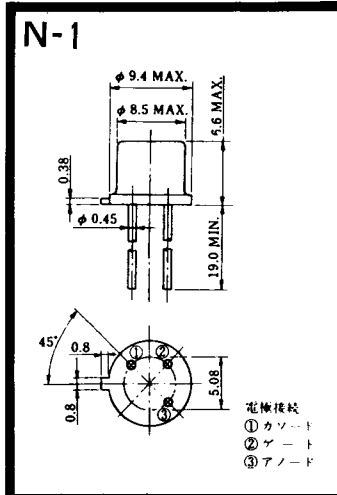


MT-22



MT-23





NA-1

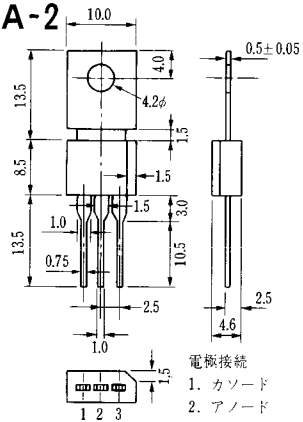


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

NA-2



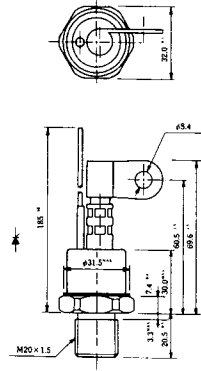
電極接続

1. カソード
2. アノード
3. ゲート

JEDEC: TO-202AA

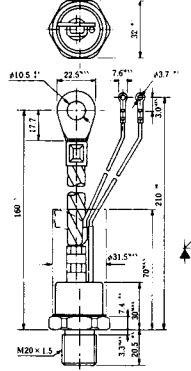
NI-9

259RW
309RW



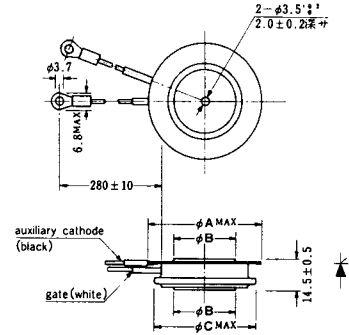
NI-10

259RW_{JL}
309RW_{JL}



NI-11

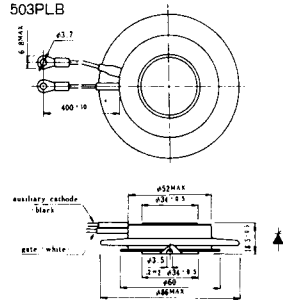
103PA
253PA
503PA
553PA
803PA
103PLE
103PLG
103PLH
203PLG
253PLE
253PLH
353PLG
403PLE
403PLH



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

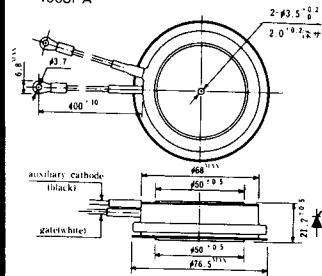
NI-12

403PAB
503PAB
503PLB



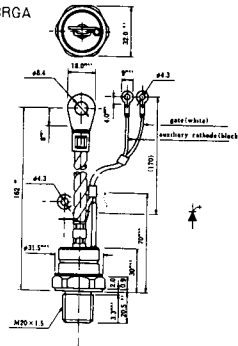
NI-13

1003PA
1003PAB
1003PLF
1003PLH
1503PA



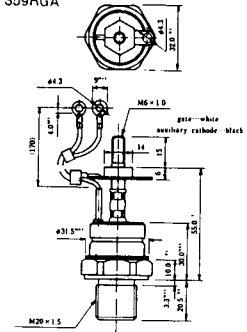
NI-14

358RGA



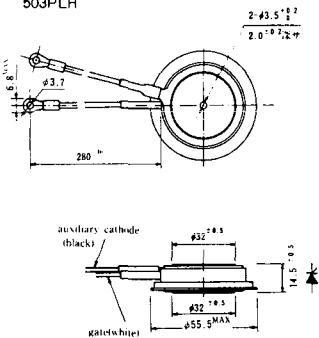
NI-15

359RGA



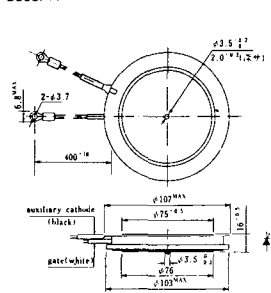
NI-16

503PLF
503PLH



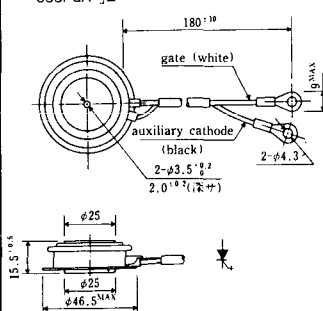
NI-17

3003PA



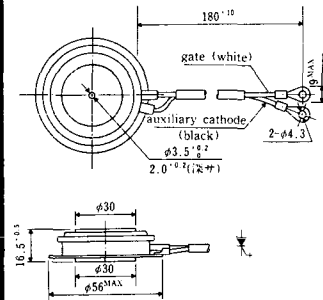
NI-18

353PGA┐E



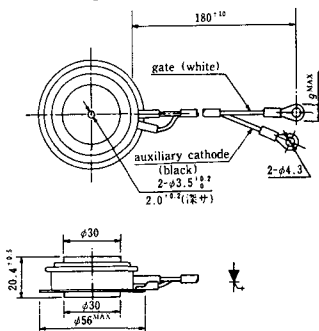
NI-19

603PGA, 603PGA┐JA, 803PGA



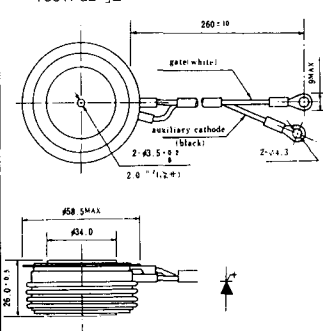
NI-20

603PGA┐E



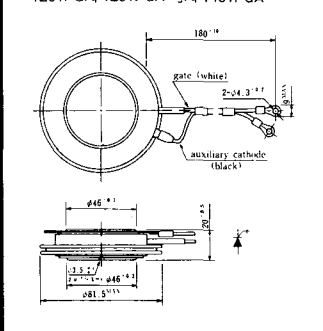
NI-21

1001PGB┐E



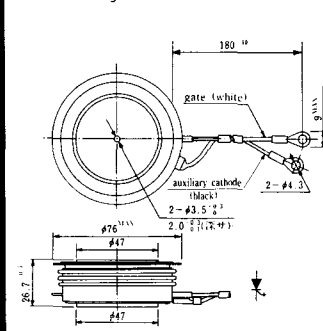
NI-22

1201PGA, 1201PGA┐JA, 1401PGA



NI-23

1201PGA┐E



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



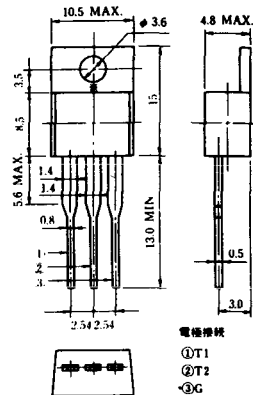
電極接続
① T₁
② ゲート
③ T₂

NT-3



電極接続
① T₁
② T₂
③ ゲート

NT-4



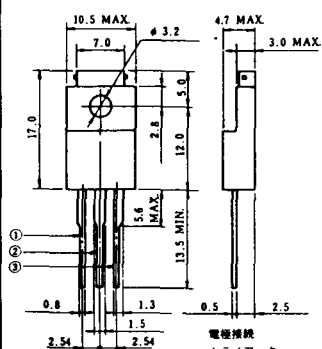
電極接続
① T₁
② T₂
③ G

NT-5



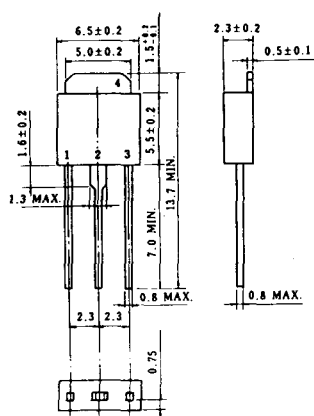
電極接続
トライアック
① T₁
② T₂
③ ゲート
φ 2g

NT-6

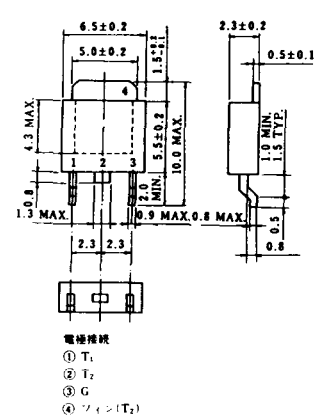


電極接続
トライアック
① T₁
② T₂
③ ゲート
φ 2k

NT-7

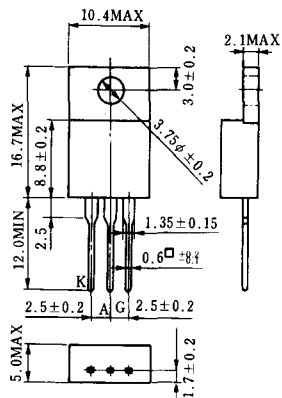


NT-8

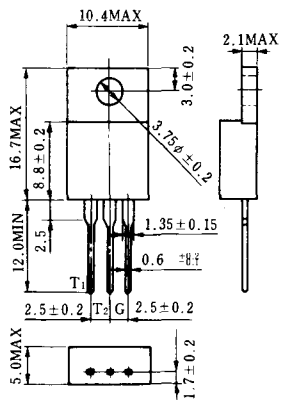


電極接続
① T₁
② T₂
③ G
④ シェン(T₂)

S-1



ST-1



SA-1



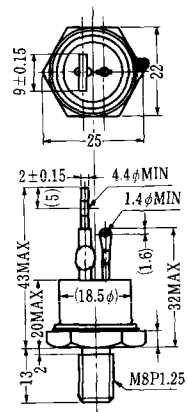
SA-2



SA-3



SA-4



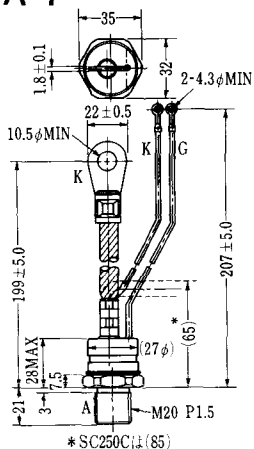
SA-5



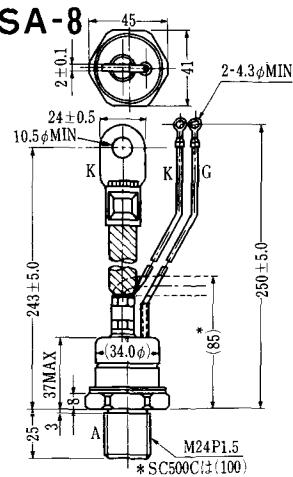
SA-6



SA-7



SA-8



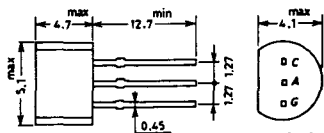
SAT-10



SAT-11



SY-1 (1096A)



C: Cathode
A: Anode
G: Gate

SY-2 (1151)



G: Gate
A: Anode
C: Cathode

SY-3 (1104)



G: Gate
A: Anode
C: Cathode

SY-4 (1150)



G: Gate
A: Anode
C: Cathode

1097A



G: Gate

1102



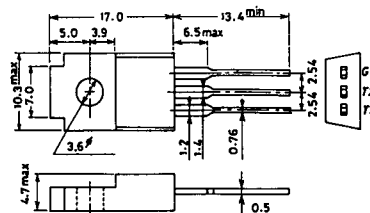
1141



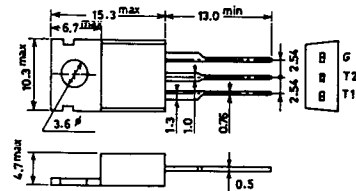
1142



1144



1155



1192A



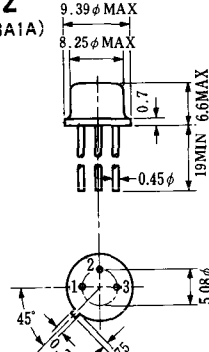
G: Gate

T-1 (13-5A1A)



- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)



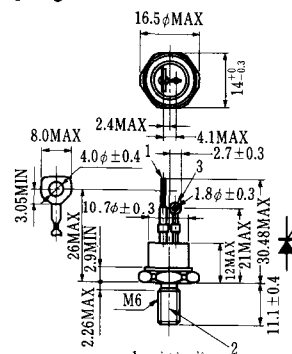
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



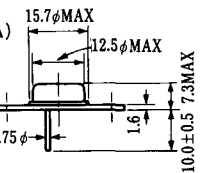
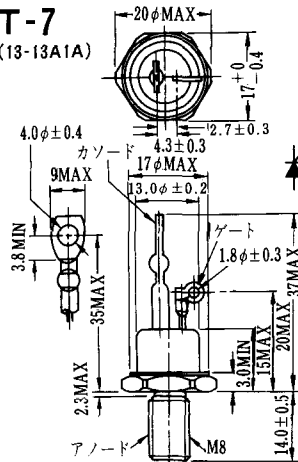
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



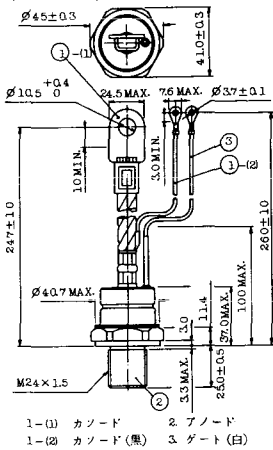
- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)

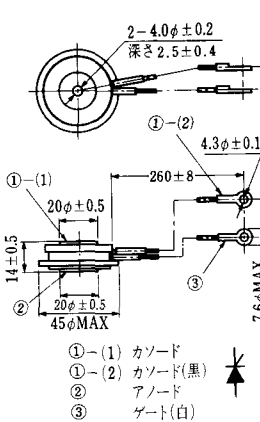


1. ゲート
2. カソード
3. アノード(ケース)

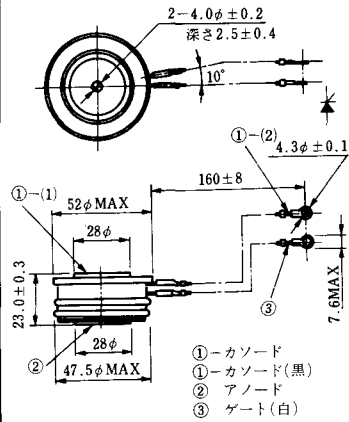
T-17 (13-42A1A)



T-18 (13-45D1A)



T-19 (13-52B1A)



T-20 (13-52C1A)



T-21 (13-60A1A)



T-22 (13-70C1A)



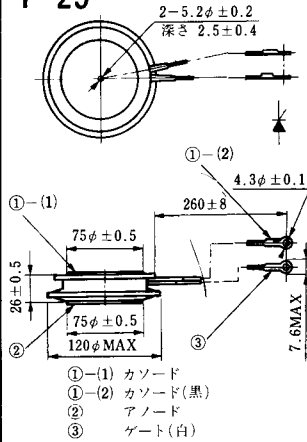
T-23 (13-78A1A)



T-24 (13-100C1A)



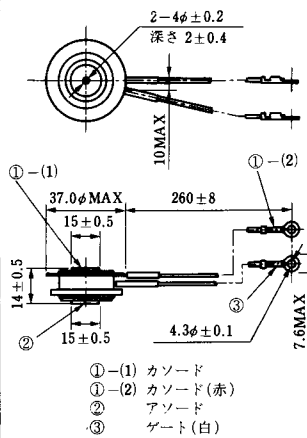
T-25 (13-120A2A)



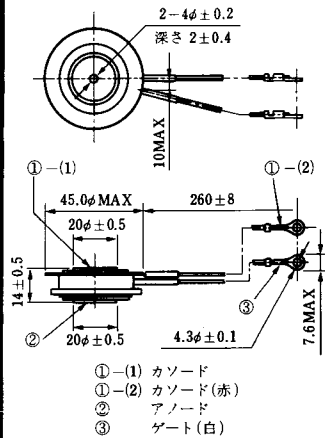
T-26 (13-150A1A)



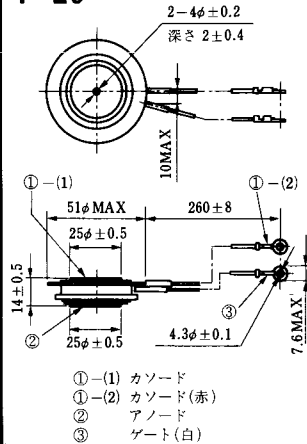
T-27 (13-37A1A)



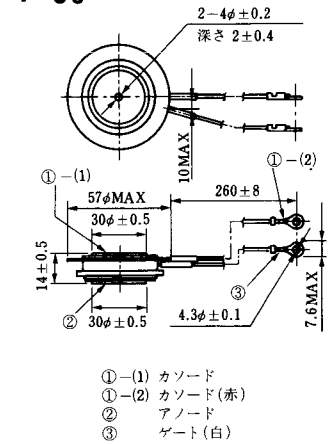
T-28 (13-45E1A)



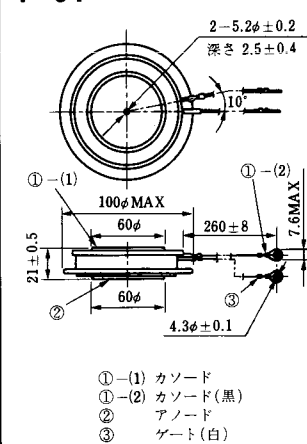
T-29 (13-51A1A)



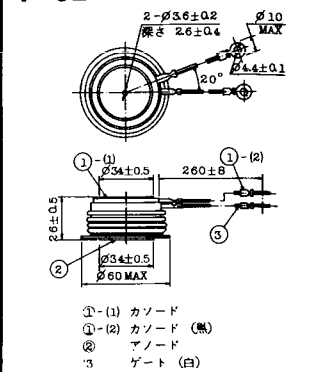
T-30 (13-57A1A)



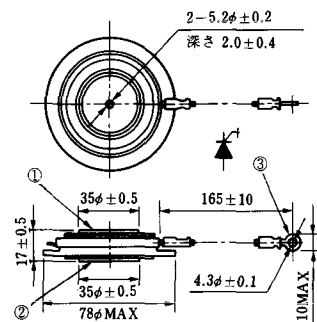
T-31 (13-100E1A)



T-32 (13-60E3A)

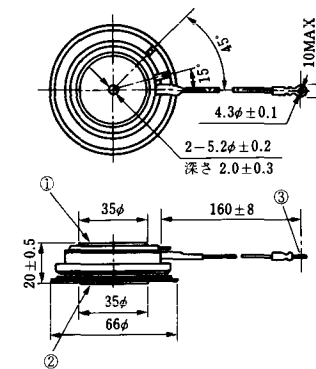


T-33 (13-78B1A)



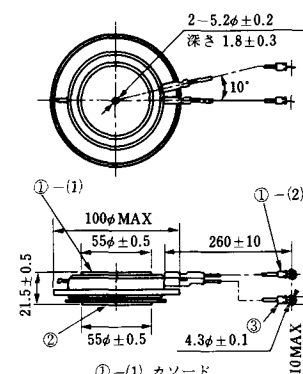
- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



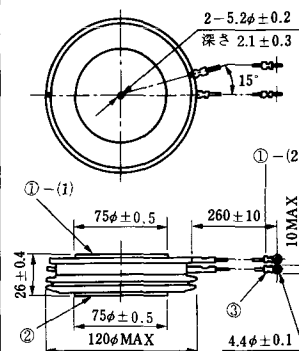
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



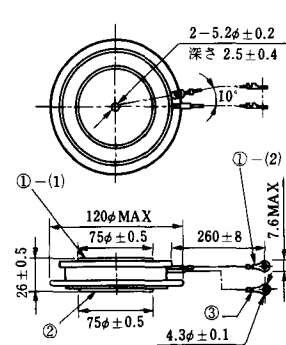
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



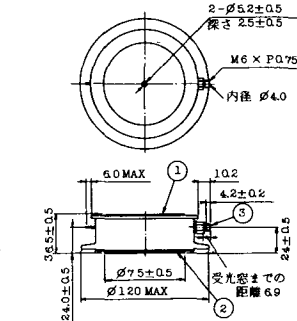
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



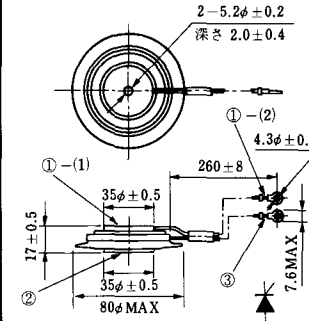
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



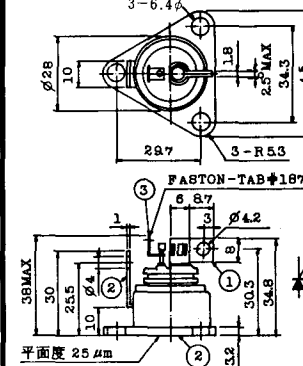
- ① カソード
- ② アノード
- ③ ゲート

T-39 (13-80B1A)



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

T-40 (13-28A1A)



- 1. カソード
- 2. アノード
- 3. ゲート

T-41 (13-28A2A)



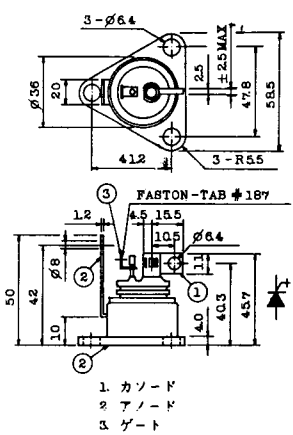
T-42 (13-45F1A)



T-43 (13-60E2A)



T-44 (13-36A1A)



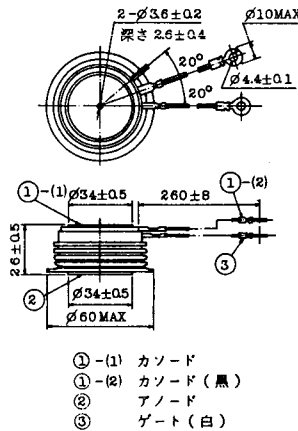
T-45 (13-51B1A)



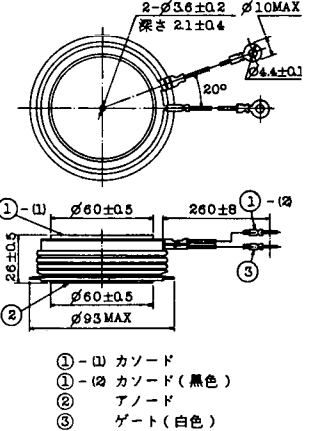
T-46 (13-36B1A)



T-47 (13-60E1A)



T-48 (13-93C1A)

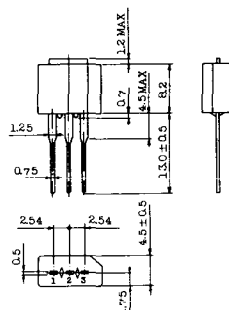


T-49 (13-75A1A)



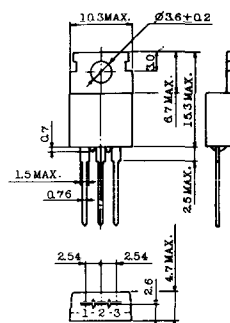
- 1-(1) カソード
- 1-(2) カソード(黒)
- 2 アノード
- 3 ゲート(白)

T-50 (13-10A3A)



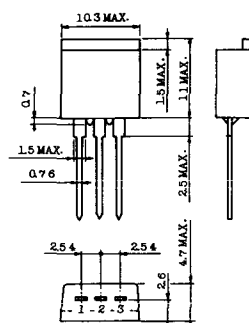
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



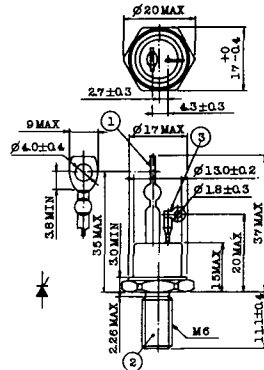
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



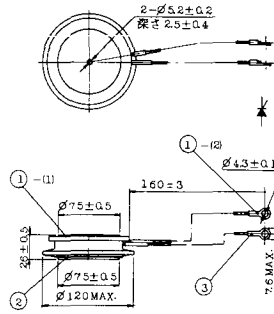
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



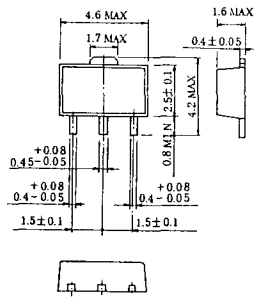
- 1-(1) カソード
- 1-(2) カソード (黒)
2. アノード
3. ゲート (白)

T-60



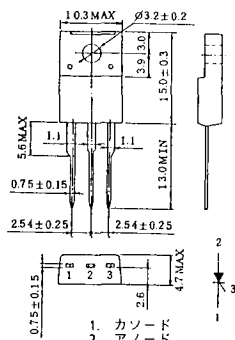
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



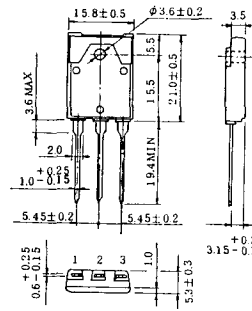
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



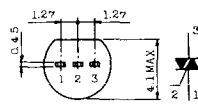
1. カソード
2. アノード
3. ゲート

TT-1



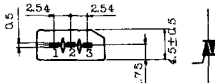
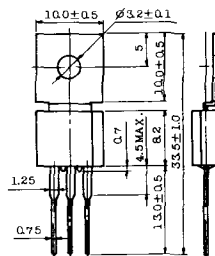
- 1 ゲート
- 2 T₂
- 3 T₁

TT-2



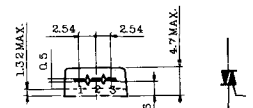
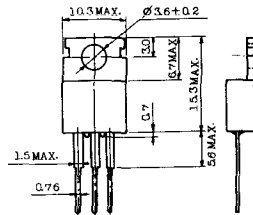
- 1 T₁
- 2 ゲート
- 3 T₂

TT-3



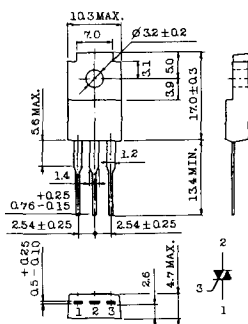
- 1 T₁
- 2 T₂
- 3 ゲート

TT-4



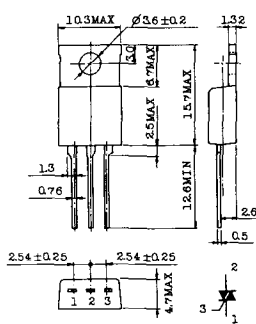
- 1 T₁
- 2 T₂
- 3 ゲート

TT-5



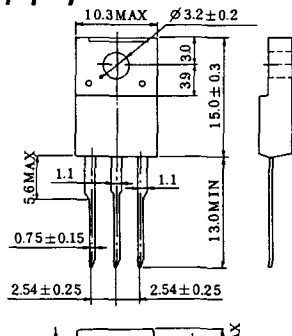
- 1 T₁
- 2 T₂
- 3 ゲート

TT-6



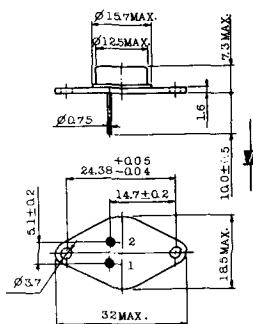
- 1 T₁
- 2 T₂ (放熱板)
- 3 ゲート

TT-7



- 1 T₁
- 2 T₂
- 3 ゲート

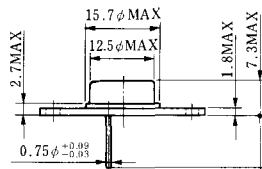
TT-8



- 1 ゲート
- 2 T₁
- T₂ (ケース)



TS-8



- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

S-94B2A



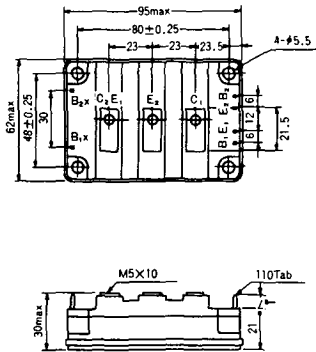
S-94D1A



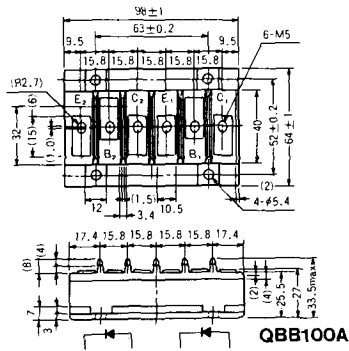
S-95A1A



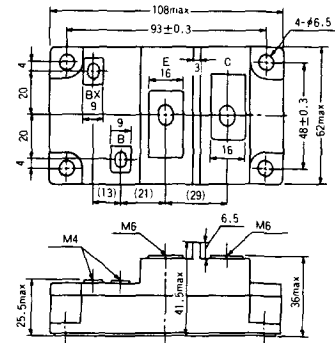
S-95B1A



S-98B1B



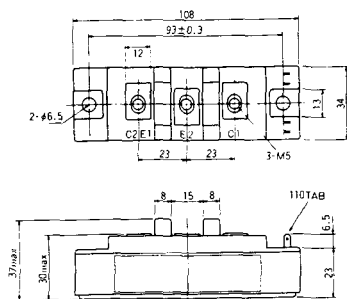
S-108A2A



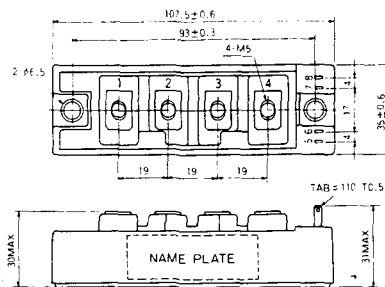
S-108B1A



S-108B1B



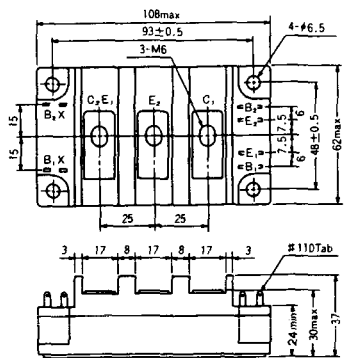
S-108B1C



S-108B2A



S-108B2B



2-48A3A



2-48A3B



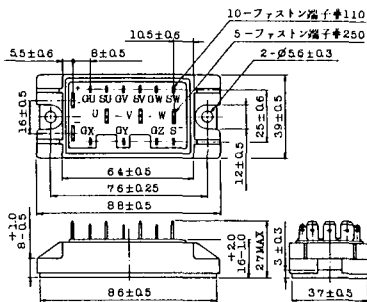
2-48A4A



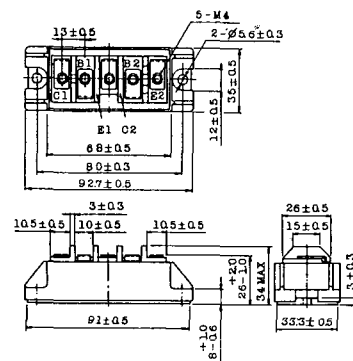
2-64A2A



2-64A2B



2-68A2A



2-68B2A



2-68C1A



2-68D2A



2-72A3A



2-80A1A



2-80B1A



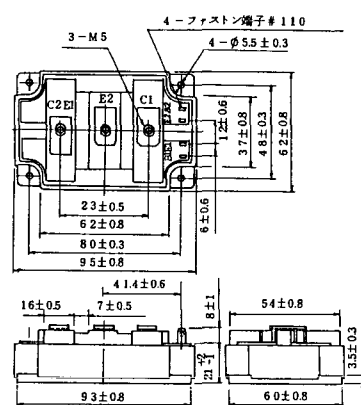
2-94D1A



2-96A3A



2-96A4A



2-98B1A



2-98C2A



2-108A2A



2-108B1A



2-109A3A



2-109A4A



2-109B3A



2-109B4A



M-101



M-102



M-103



M-104



M-105



M-106



M-201



M-202



M-203



M-204



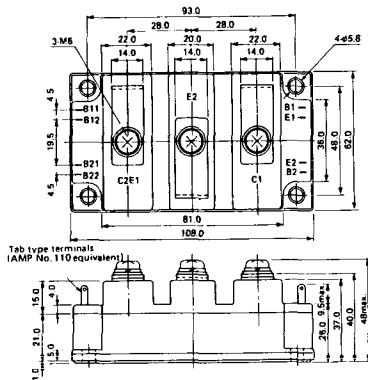
M-205



M-206



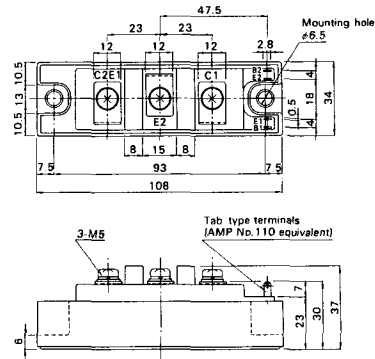
M-207



M-208



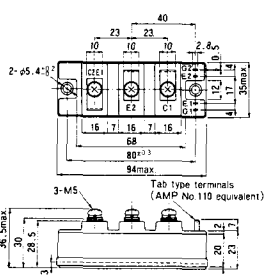
M-209



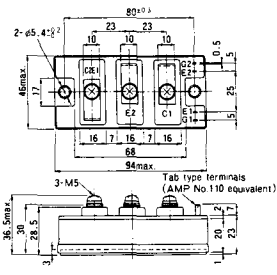
M-210



M-211



M-212



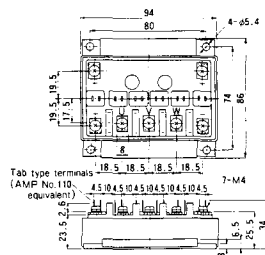
M-219



M-607



M-608



M-609



M-610



M-616



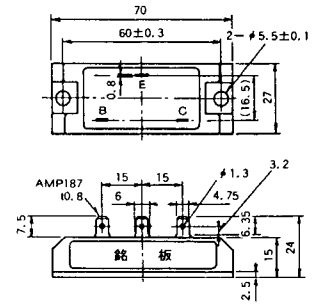
M-1A1A



M-2A1A



M-2B1A



M-2B2A



M-2C2A



M-2D4A



M-3C1A



M-3D6A



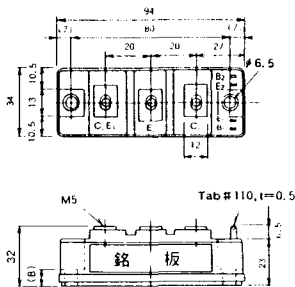
M-3E6A



M-4A1A



M-4A2A



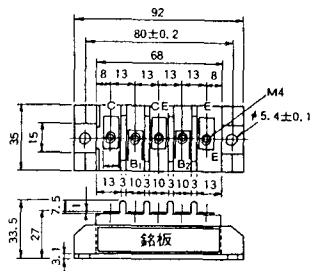
M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



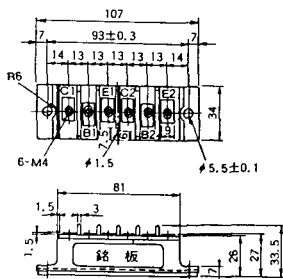
M-5A2A



M-5B2A



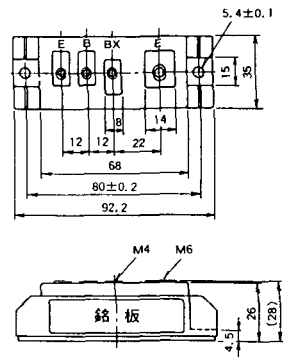
M-5C2A



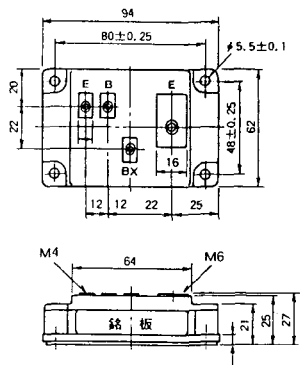
M-5D2A



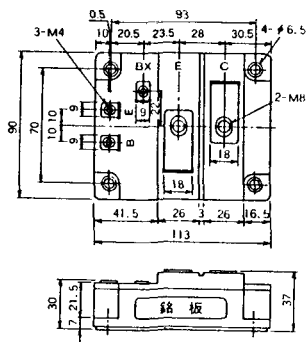
M-6A1A



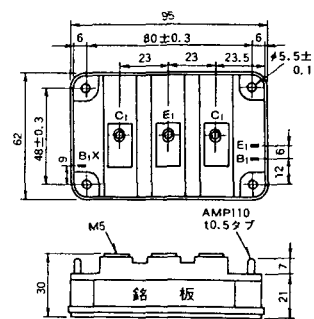
M-7A1A



M-7B1A



M-8A1A



M-8A1B



M-8A2A



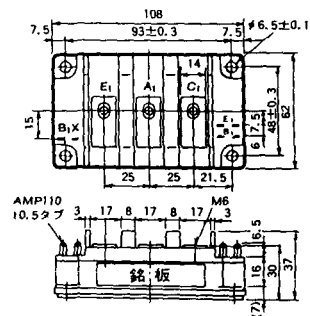
M-8A2B



M-8B2A



M-9A1A



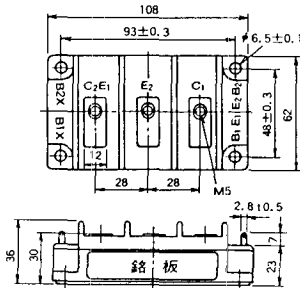
M-9A2A



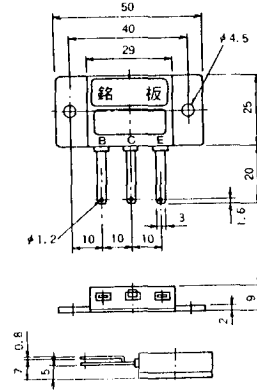
M-9B1A



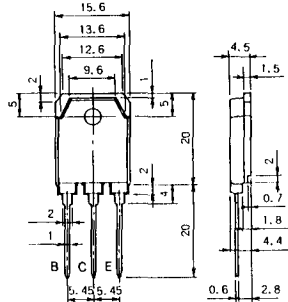
M-9C2A



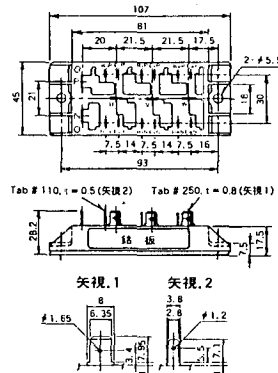
M-1A1B



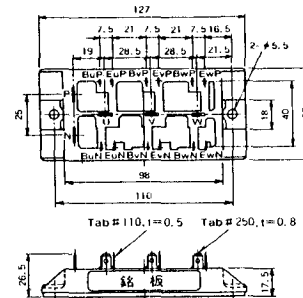
M-1A1C



M-2E6B



M-2E6C



M-9D2B



M-10A2C



H-101



Weight :480g

H-201



Weight: 200g

H-202



Weight: 360g

LF-J



LF-K



