

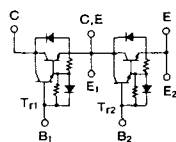
- ダーリントン・トランジスタ2個内蔵 (直列接続)
- フリーホイール・ダイオード付
- 絶縁形
- UL認定品あり

Yellow Card No.: E80276 (N)

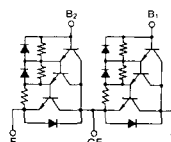
File No.: E80271

■等価回路

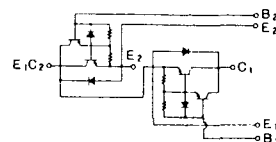
DX 1B



DX 2A



DY-1A

注1. $I_C = 1A$, $V_{EB} = 2V$, # 印は V_{CEX} ($V_{EB} - 2V$)。

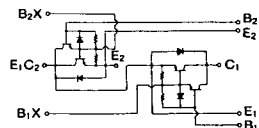
注2. 60Hz, 単相半波1サイクル波高値。

注3. $T_c = 25^\circ C$ 。

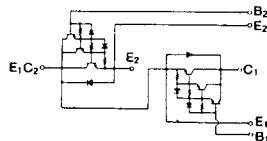
注4. AC, 1分間。

型 名	最 大 定 格 (T _J = 25℃)										電 気 的 特 性										
	V _{CBO}	V _{CEX (SUS)} (注1)	V _{EBO}	I _C	I _B	I _F	I _{PM} (注2)	P _C (注3)	T _J	T _{max}	V _{iso} (注4)	I _{CEX}	V _{CE}	V _{EB}	I _{EBO}	V _{EB}	V _{CEO (SUS)}	h _{FE}			
	(V)	(V)	(V)	(A)	(A)	(A)	(A)	(W)	(℃)	(℃)	(V)	最大	(V)	(V)	最大	(V)	最小	(A)	最 小	V _{CE} (V)	I _C (A)
QM15DX-H	600	600	7	15	0.9	15	150	100	150	-40~125	2500	1	600	2	80	7			50/100	2/5	15
QM15DX-2H	1000	1000	7	15	1.0	15	150	150	150	-40~125	2500	1	1000	2	100	7			75/100	2.8/5	15
QM15DX-24	1200	1200	7	15	1.0	15	150	150	150	-40~125	2500	2	1200	2	100	7			75	5	15
QM20DX-H	600	600	7	20	1.0	20	200	160	150	-40~125	2500	1	600	2	150	7			75/100	2/5	20
QM30DY-H	600	600	7	30	1.8	30	300	250	150	-40~125	2500	1	600	2	200	7			75/100	2/5	30
QM30DY-2H	1000	1000	7	30	2.0	30	300	310	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	30
QM30DY-24	1200	1200	7	30	2.0	30	300	300	150	-40~125	2500	1	1200	2	200	7			75	5	30
QM30DY-HB	600	600	7	30	1.8	30	300	250	150	-40~125	2500	1	600	2	60	7			750	2.5	30
QM40DY-3H	1400	1400	7	40	4.0	40	400	400	150	-40~125	2500	5	1400	3	100	7			100	5	40
QM50DY-H	600	600	7	50	3.0	50	500	310	150	-40~125	2500	1	600	2	200	7			75/100	2/5	50
QM50DY-2H	1000	1000	7	50	3.0	50	500	400	150	-40~125	2500	1	1000	2	200	7			75/100	2.8/5	50
QM50DY-24	1200	1200	7	50	3.0	50	500	400	150	-40~125	2500	1	1200	2	200	7			75	5	50
QM50DY-HB	600	600	7	50	3.0	50	500	310	150	-40~125	2500	1	600	2	80	7			750	2.5	50
QM50DY-2HB	1000	1000	7	50	3.0	50	500	400	150	-40~125	2500	2	1000	2	50	7			750	4	50
QM75DY-H	600	600	7	75	4.5	75	750	350	150	-40~125	2500	1	600	2	75	7			75/100	2/5	75
QM75DY-2H	1000	1000	7	75	4.0	75	750	500	150	-40~125	2500	1	1000	2	100	7			75/100	2.8/5	75
QM75DY-24	1200	1200	7	75	4.0	75	750	500	150	-40~125	2500	1	1200	2	200	7			75	5	75
QM75DY-HB	600	600	7	75	4.5	75	750	350	150	-40~125	2500	1	600	2	75	7			750	2.5	75
QM75DY-2HB	1000	1000	7	75	4.0	75	750	500	150	-40~125	2500	1	1000	2	50	7			750	4	75
QM80DY-3H	1400	1400	7	80	8.0	80	800	800	150	-40~125	3000	10	1400	3	200	7			100	5	80

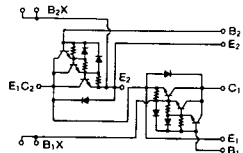
DY-1B



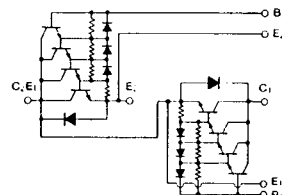
DY-2A



DY-2B



DY-3A



(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	型名	
飽和電圧 (V)		I _C		スイッチング時間 (μs)			I _{B1}		I _{B2}		V _{CC}		I _C		V _F		t _{rr}		θ _{J-C} (°C/W)					
V _{CE}	V _{BE}	I _C	I _B	t _{on}	t _{off}	t _r	I _{B1}	I _{B2}	V _{CC}	I _C	I _F	I _F	V _{BE}	di/dt	I _F	V _{BE}	di/dt	トランジスタ部	ダイオード部					
最大	最大	(A)	(A)	最大	最大	最大	(A)	(A)	(V)	(A)	最大	(A)	(V)	(A/μs)	最大	(A)	(V)	(A/μs)	最大					最大
2.0	2.5	15	0.3	1.5	8.0	3.0	0.3	-0.3	300	15	1.5	15						1.2	2.5	DX-1B	M-2B2A	UL認定済	QM15DX-H	
2.5	3.5	15	0.3	2.5	15	3.0	0.3	-0.3	600	15	1.5	15						0.8	1.2	DX-2A	M-2C2A	UL認定済	QM15DX-2H	
3.0	3.5	15	0.3	2.5	15	3.0	0.3	-0.3	600	15	1.5	15						0.8	1.2	DX-2A	M-2C2A	UL認定済	QM15DX-24	
2.0	2.5	20	0.28	1.5	12	2.0	0.4	-0.4	300	20	1.5	20						0.8	2.2	DX-1B	M-2B2A	UL認定済	QM20DX-H	
2.0	2.5	30	0.4	1.5	12	3.0	0.6	-0.6	300	30	1.85	30						0.5	2.0	DY-1A	M-4A2A	UL認定済	QM30DY-H	
2.5	3.5	30	0.6	2.5	15	3.0	0.6	-0.6	600	30	1.8	30						0.4	1.5	DY-2A	M-4A2A	UL認定済	QM30DY-2H	
3.0	3.5	30	0.6	2.5	15	3.0	0.6	-0.6	600	30	1.8	30						0.4	1.5	DY-2A	M-4A2A	UL認定済	QM30DY-24	
2.5	3.0	30	0.04	2.0	8.0	3.0	0.06	-0.6	300	30	1.8	30						0.5	2.0	DY-2A	M-4A2B	UL認定済	QM30DY-HB	
3.0	3.5	40	0.8	3.0	20	3.0	0.8	-0.8	800	40	1.8	40						0.31	1.2	DY-2A	M-5B2A	UL認定済	QM40DY-3H	
2.0	2.5	50	0.65	1.5	12	3.0	1.0	-1.0	300	50	1.75	50						0.4	1.3	DY-1A	M-4A2A	UL認定済	QM50DY-H	
2.5	3.5	50	1.0	2.5	15	3.0	1.0	-1.0	600	50	1.8	50						0.31	1.2	DY-2A	M-4A2A	UL認定済	QM50DY-2H	
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	DY-2A	M-4A2A	UL認定済	QM50DY-24	
2.5	3.0	50	0.067	2.0	8.0	3.0	0.1	-1.0	300	50	1.8	50						0.4	1.3	DY-2A	M-4A2B	UL認定済	QM50DY-HB	
4.0	4.0	50	0.067	2.5	15	3.0	0.1	-1.0	600	50	1.8	50						0.31	1.2	DY-3A	M-5A2A		QM50DY-2HB	
2.0	2.5	75	1.0	2.5	12	3.0	1.5	-1.5	300	75	1.85	75						0.35	1.3	DY-1A	M-4A2A	UL認定済	QM75DY-H	
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	DY-2A	M-5A2A	UL認定済	QM75DY-2H	
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	DY-2A	M-5A2A	UL認定済	QM75DY-24	
2.5	3.0	75	0.1	2.0	8.0	3.0	0.15	-1.5	300	75	1.8	75						0.35	1.3	DY-2A	M-4A2B	UL認定済	QM75DY-HB	
4.0	4.0	75	0.1	2.5	15	3.0	0.15	-1.5	600	75	1.8	75						0.25	1.2	DY-3A	M-5A2A	UL認定済	QM75DY-2HB	
3.0	3.5	80	1.6	3.0	20	3.0	1.6	-1.6	800	80	1.8	80						0.155	0.6	DY-2B	M-9C2A	UL認定済	QM80DY-3H	

FD-1



FD-2



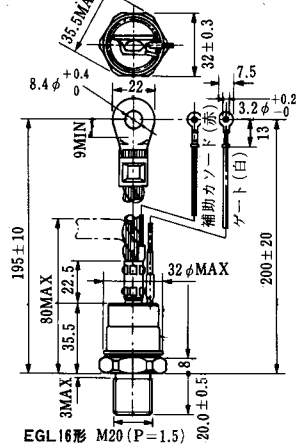
FD-3



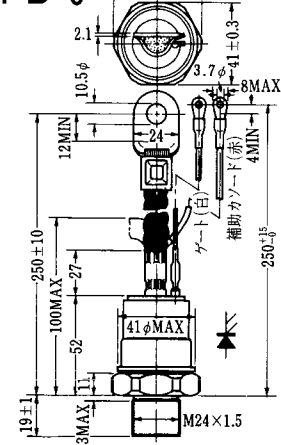
FD-4



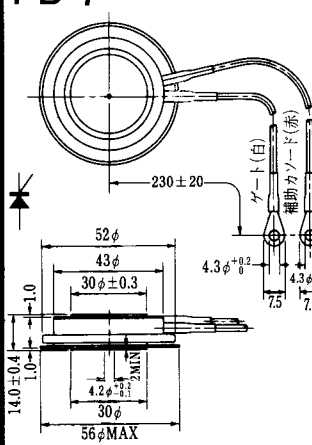
FD-5



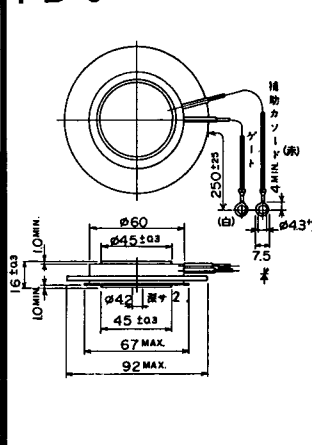
FD-6



FD-7



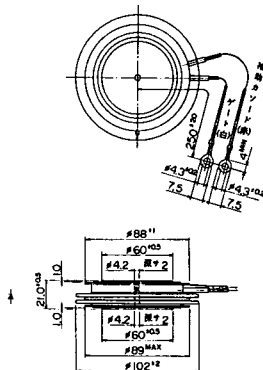
FD-8



FD-9



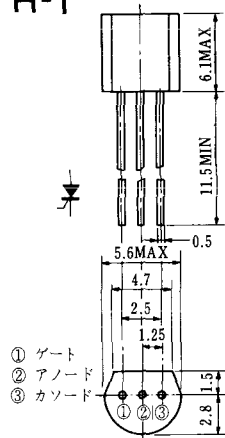
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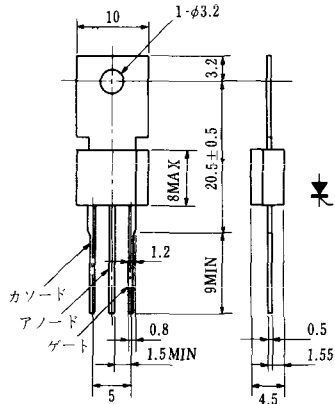
FD-11

FD-12

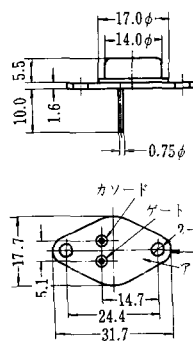
H-1



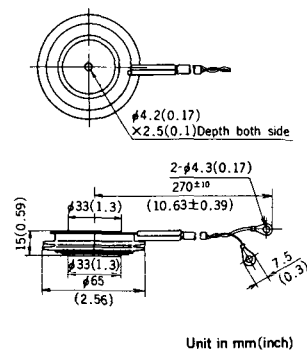
H-2



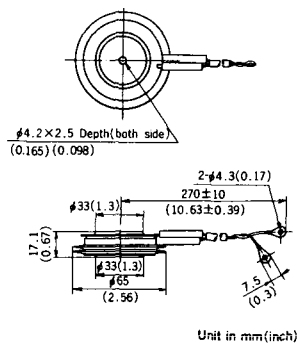
H-3



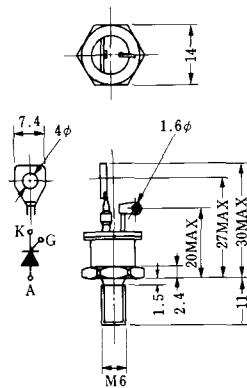
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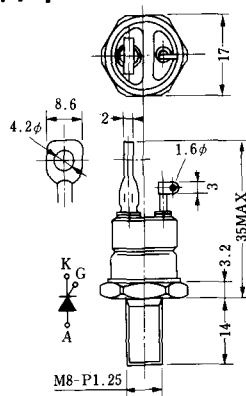
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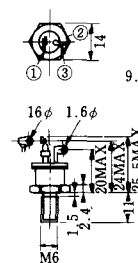
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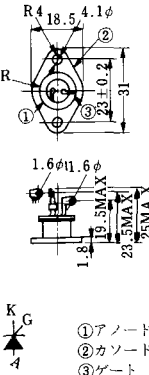
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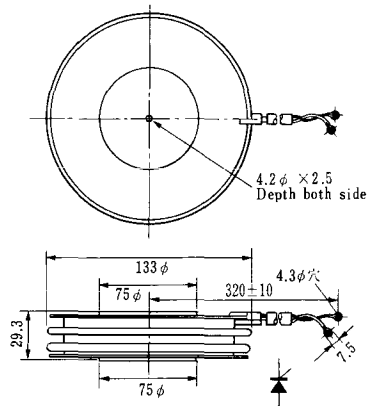
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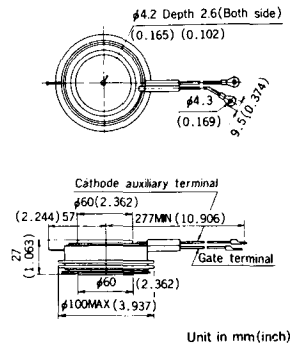
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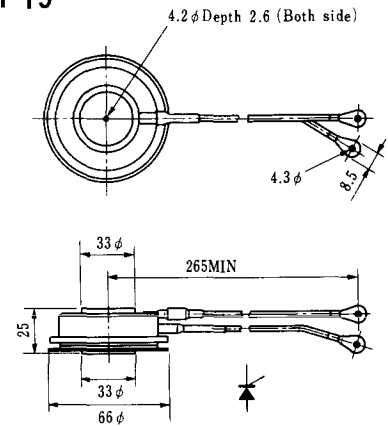
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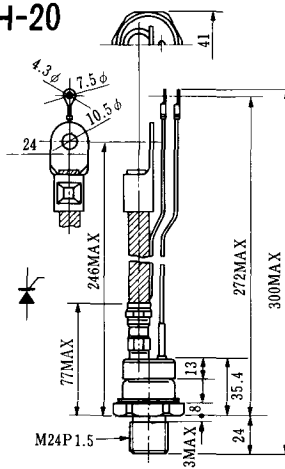
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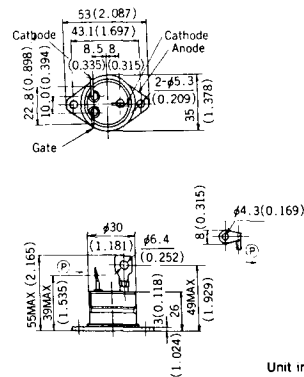
H-19



H-20

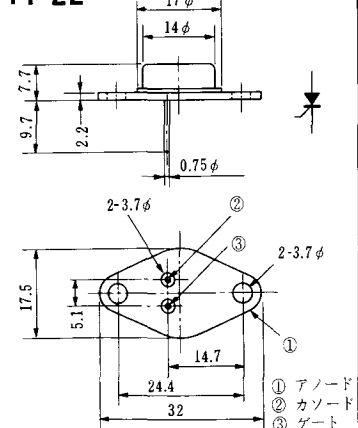


H-21



Unit in mm (inch)

H-22



H-23



H-24



H-25

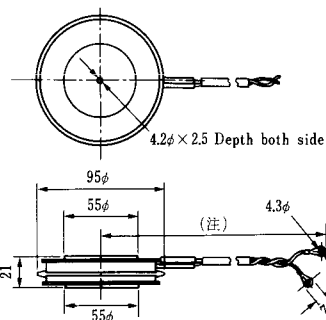


H-26



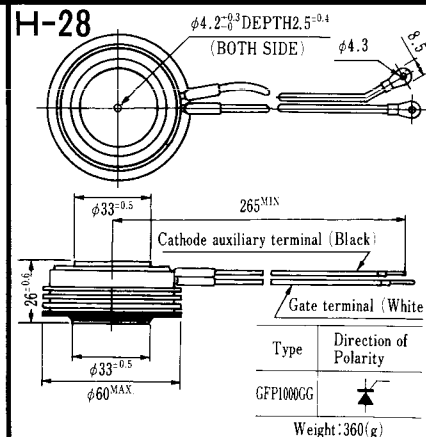
Type	Direction of polarity
CA12	

H-27



Type	Direction of polarity
CF11V	

H-28



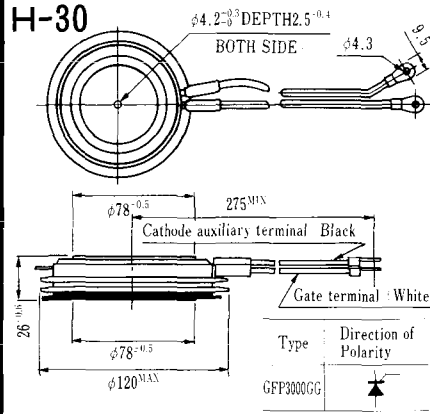
Note: The thickness is a dimension in press at the rated mounting force.

H-29



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

H-30



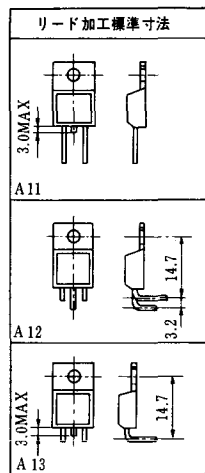
Note : The thickness is a dimension in press at the rated mounting force.

HT-1



Unit in mm (inch)

HT-2



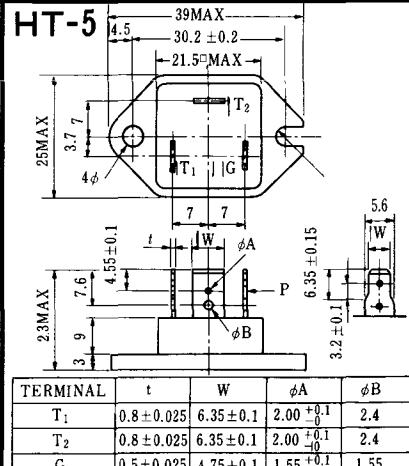
HT-3



HT-4



HT-5



《寸法図単位：mm》

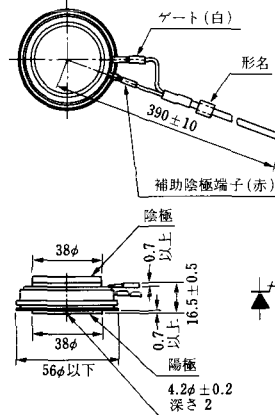
M-1



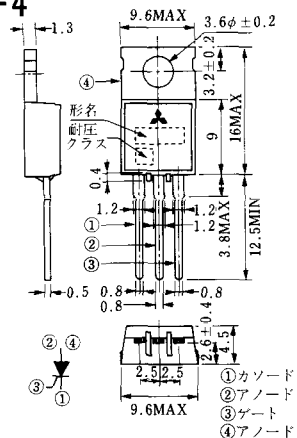
M-2



M-3



M-4



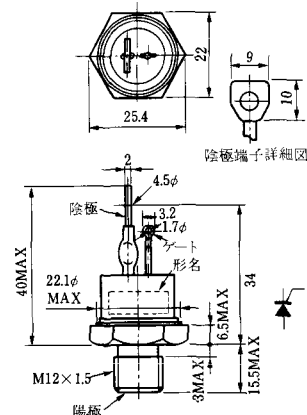
M-5



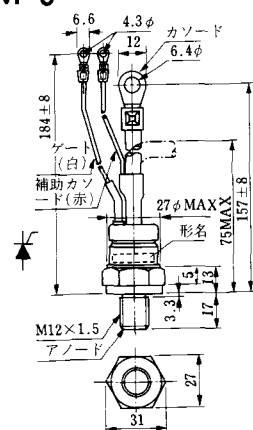
M-6



M-7



M-8



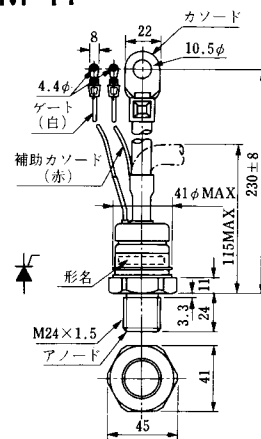
M-9



M-10



M-11



M-12



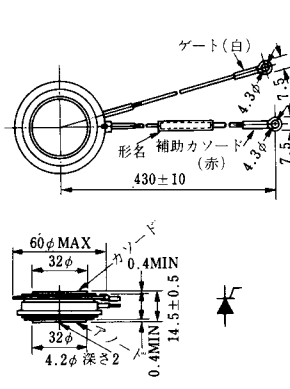
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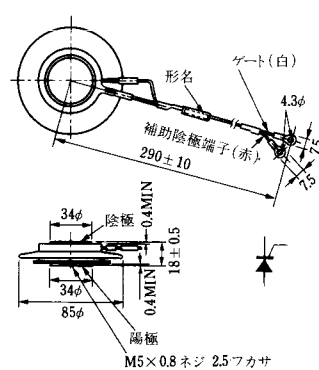
M-14



M-15



M-16



M-17



M-18



M-19



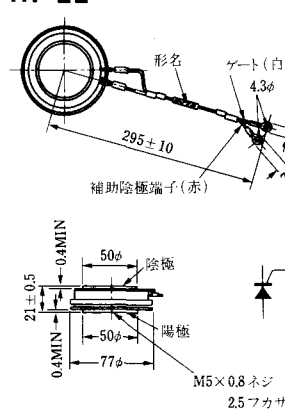
M-20



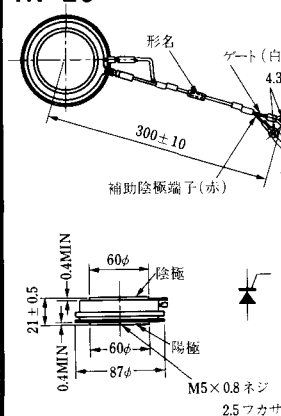
M-21



M-22



M-23



M-24



M-25



M-26



M-27



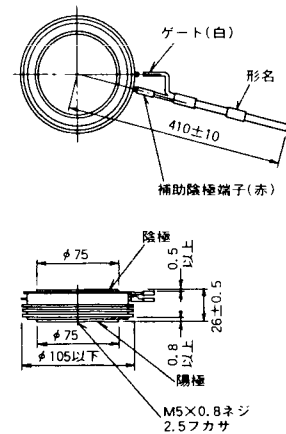
M-28



M-29



M-30



M-31



M-32



M-33



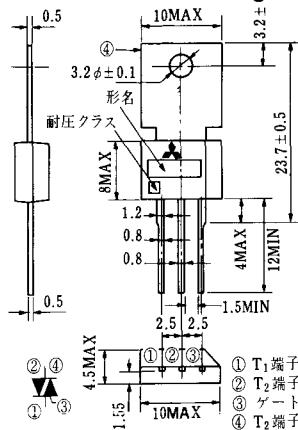
M-34



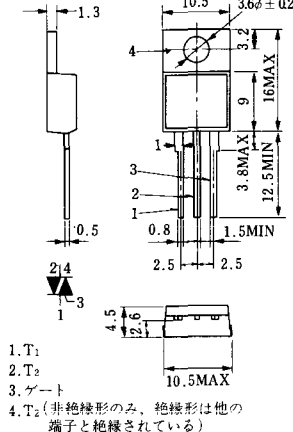
MT-1



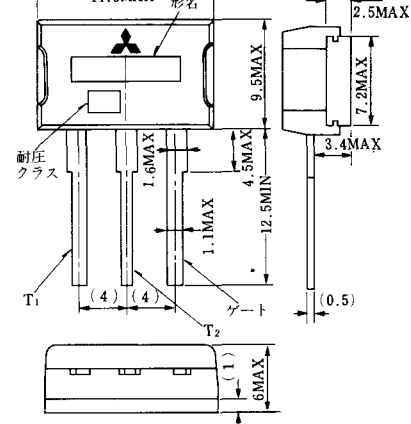
MT-2



MT-3



MT-4



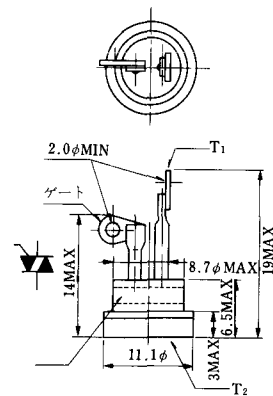
MT-5



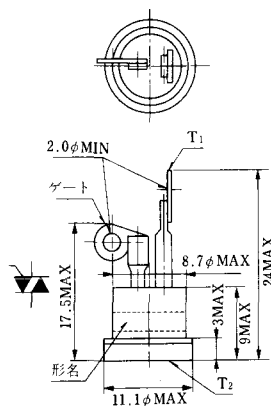
MT-6



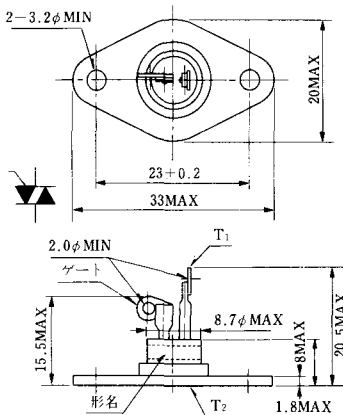
MT-7



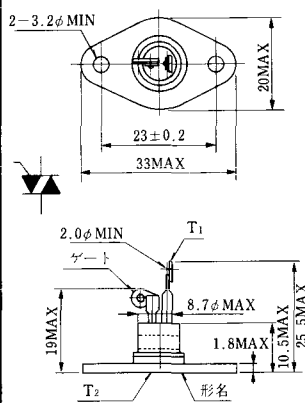
MT-8



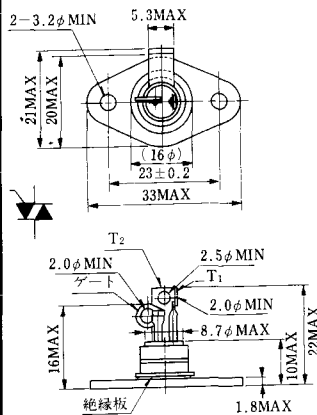
MT-9



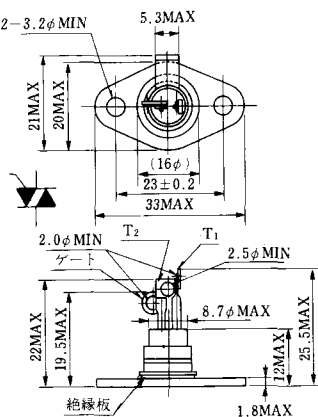
MT-10



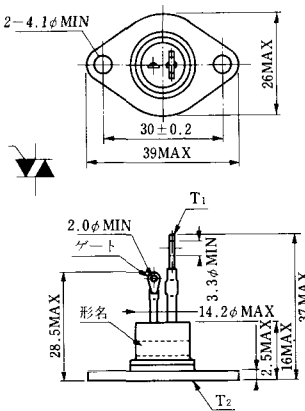
MT-11



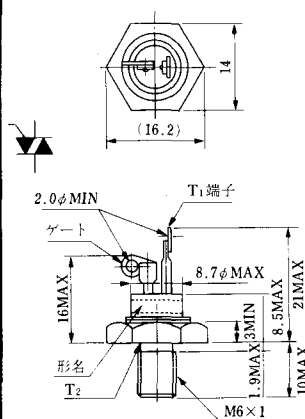
MT-12



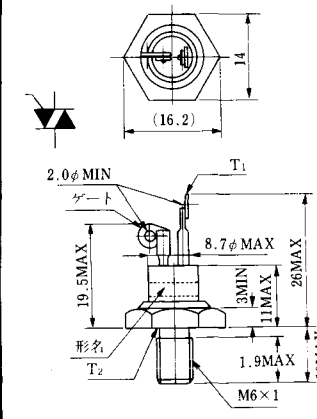
MT-13



MT-14



MT-15



MT-16



MT-17



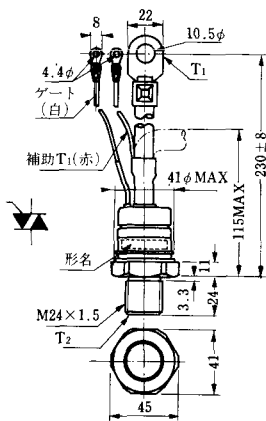
MT-18



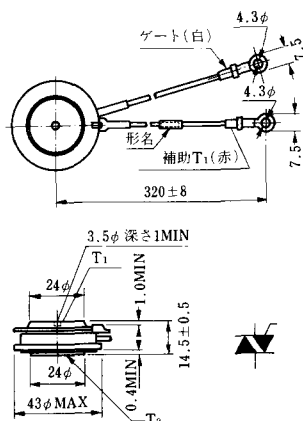
MT-19



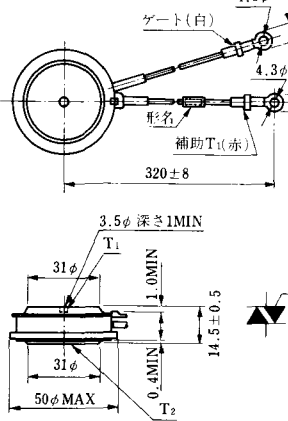
MT-20



MT-21



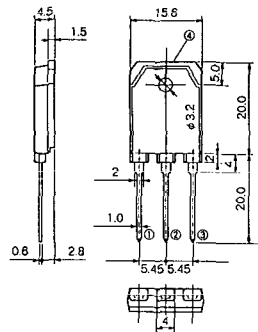
MT-22



MT-23



MT-24



TO - 3P

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

N-1



電極接続

- ① カソード
- ② ゲート
- ③ アノード

N-2



電極接続

- ① ゲート
- ② アノード
- ③ カソード

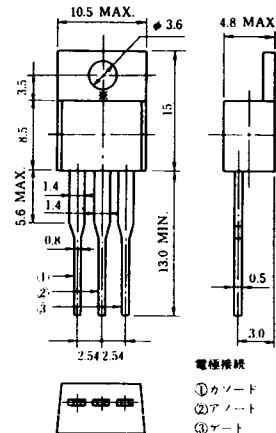
N-3



電極接続

- ① カソード
- ② アノード
- ③ ゲート

N-4



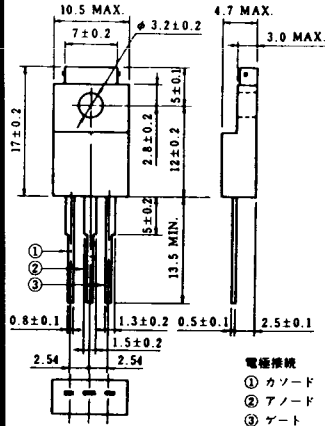
電極接続

- ① カソード
- ② アノード
- ③ ゲート

N-5



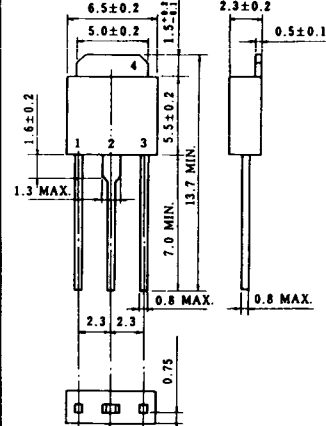
N-6



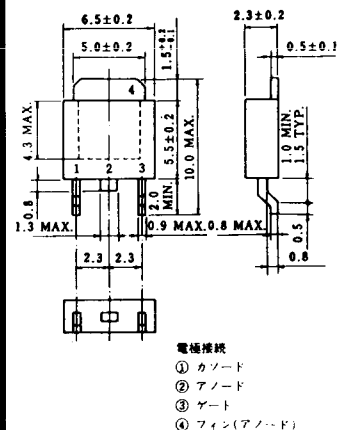
電極接続

- ① カソード
- ② アノード
- ③ ゲート

N-7



N-8



電極接続

- ① カソード
- ② アノード
- ③ ゲート
- ④ フィン(アノード)

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

[illegible]

NI-3

NI-4

NI-5

Technical drawing of a mechanical part, likely a valve or actuator component. The drawing includes the following specifications:

- Top View:** A circular cross-section with a central hole. Dimensions include a diameter of $\phi 35.0 \pm 0.3$, a width of 32.0 ± 0.3 , and a depth of 6.3 .
- Main View:** A side view showing a threaded section at the bottom with a thread specification of $M20 \times 1.5$. The total height is 162 ± 10 . Key diameters and tolerances are indicated: $\phi 10.5 \pm 0.4$, 18.0 MAX , 7.5 MAX , and $\phi 2.7 \pm 0.3$.
- Internal Features:** Two internal holes are shown with diameters of $\phi 10 \text{ MIN}$ and $\phi 3 \text{ MIN}$.
- Other Dimensions:** A distance of 10 MAX from the base to the first internal hole, a distance of 70 ± 10 from the base to the second internal hole, and a distance of 30 MAX between the two internal holes.
- Threaded Section:** The bottom section has a thread of $M20 \times 1.5$ and a length of 3 MAX .

NI-6

[illegible]

NI-7

[illegible]

NI-8

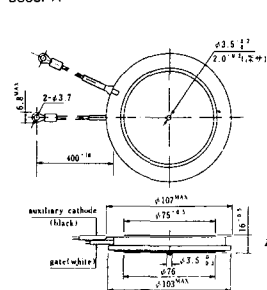
NI-16

503PLF
503PLH



NI-17

3003PA



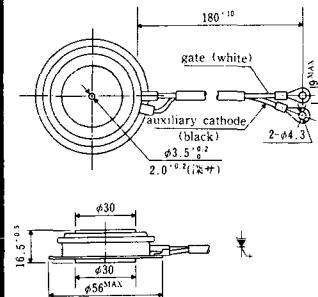
NI-18

353PGA「E



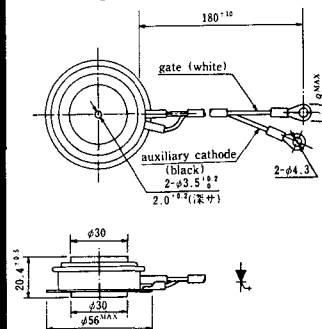
NI-19

603PGA, 603PGA「A, 803PGA



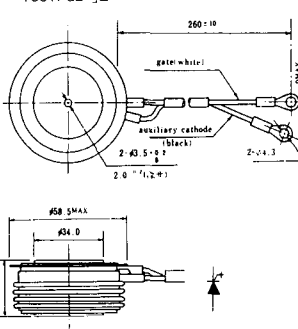
NI-20

603PGA「E



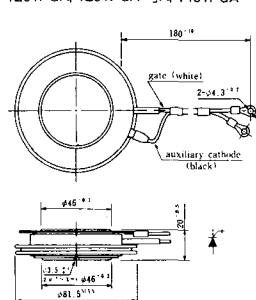
NI-21

1001PGB「E



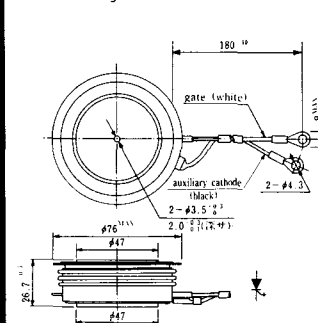
NI-22

1201PGA, 1201PGA「A, 1401PGA



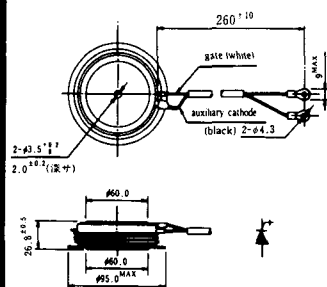
NI-23

1201PGA「E



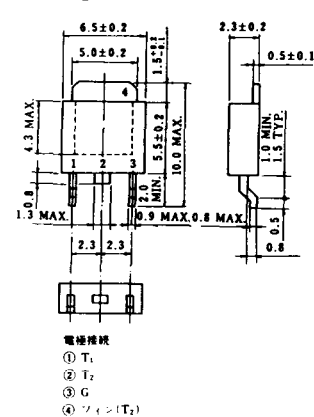
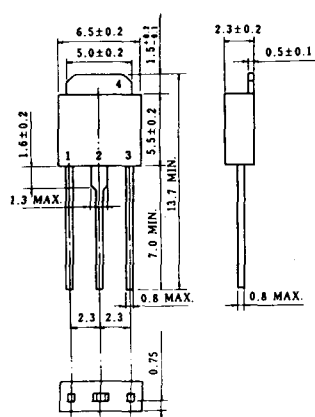
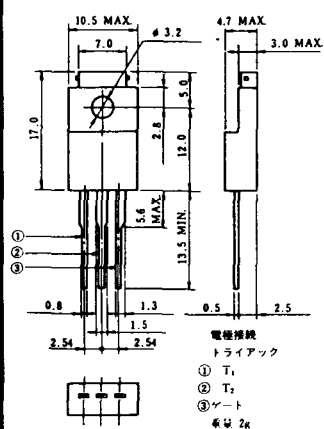
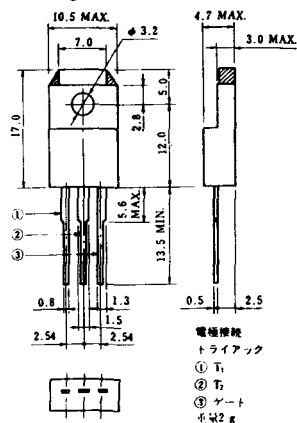
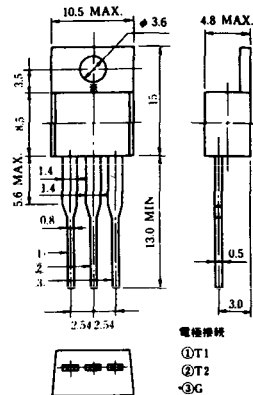
NI-24

2001PGB⁺ J_E



NI-25

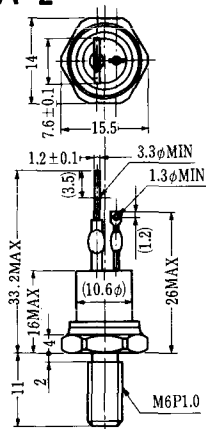
NI-26



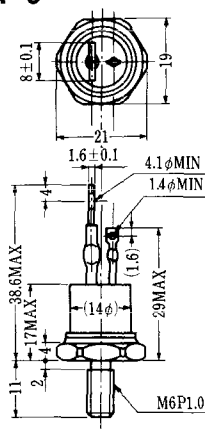
SA-1



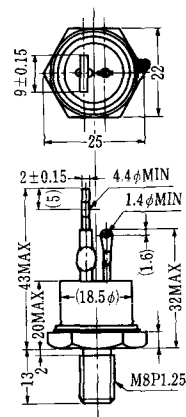
SA-2



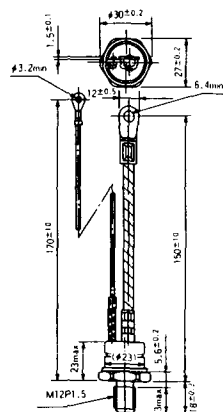
SA-3



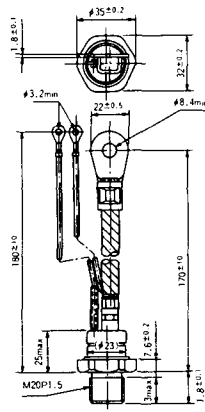
SA-4



SA-5



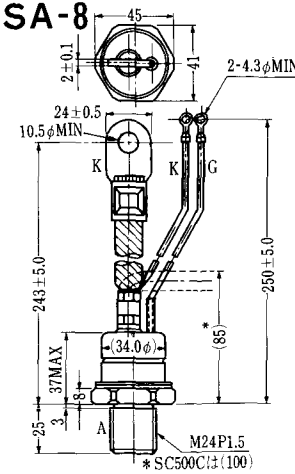
SA-6



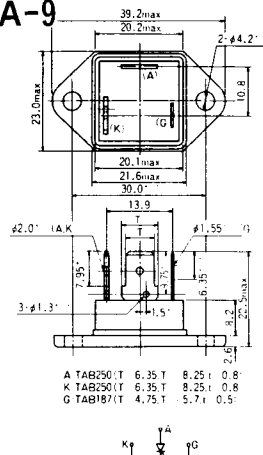
SA-7



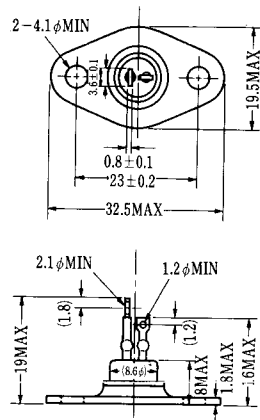
SA-8



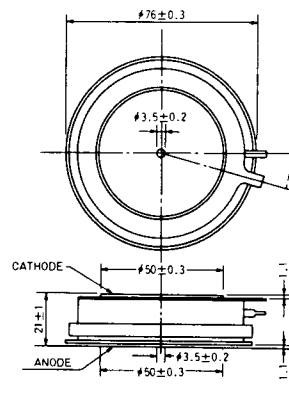
SA-9



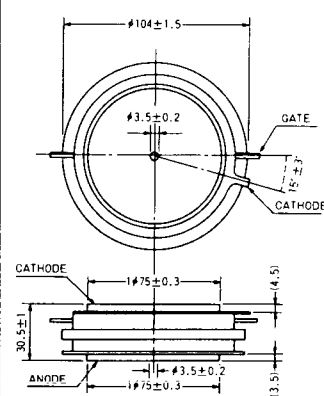
SA-10



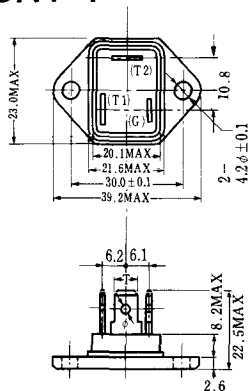
SA-11



SA-12

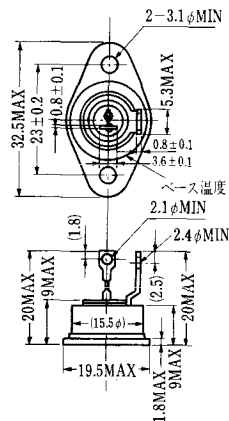


SAT-1

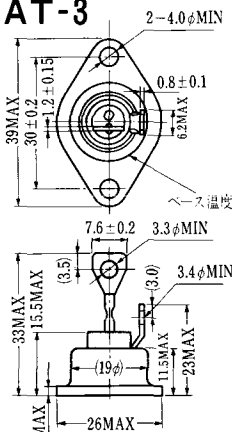


T1端子:ファストン250($T=6.35$, $t=0.8$, $\phi=1.65$)
T2端子:ファストン250($T=6.35$, $t=0.8$, $\phi=1.65$)
G端子:ファストン187($T=4.75$, $t=0.5$, $\phi=1.3$)

SAT-2



SAT-3



SAT-4



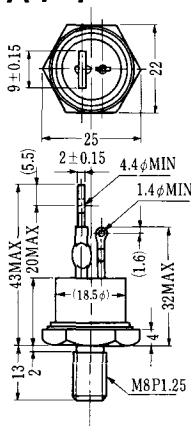
SAT-5



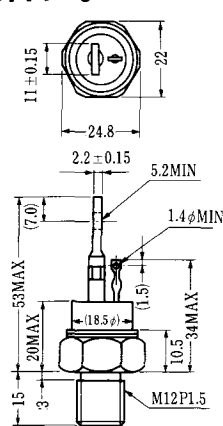
SAT-6



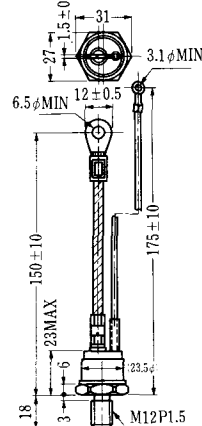
SAT-7



SAT-8



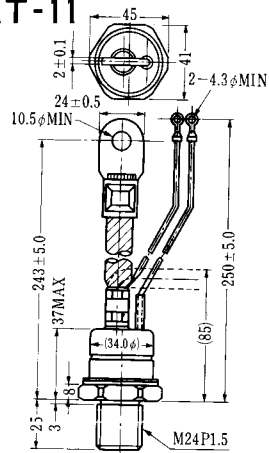
SAT-9.



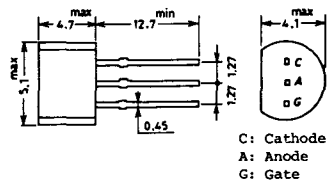
SAT-10



SAT-11



SY-1(1096A)



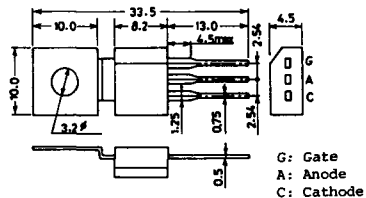
SY-2(1151)



SY-3(1104)



SY-4(1150)



1097A



G: Gate

1102



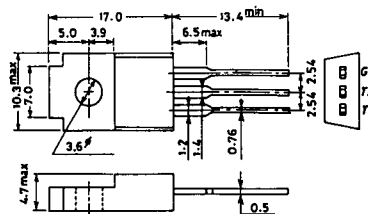
1141



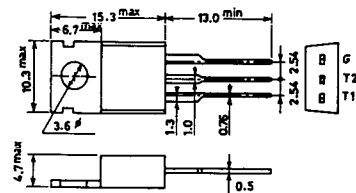
1142



1144



1155

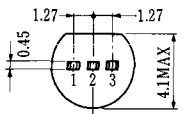
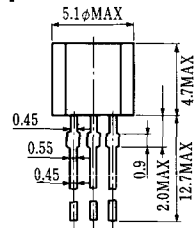


1192A



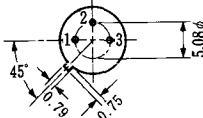
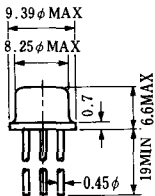
G: Gate

T-1 (13-5A1A)



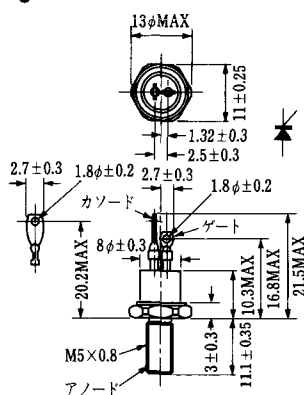
- 1 ゲート
- 2 アノード
- 3 カソード

T-2
(13-8A1A)



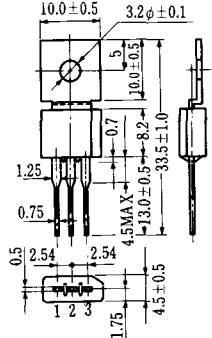
1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)



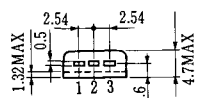
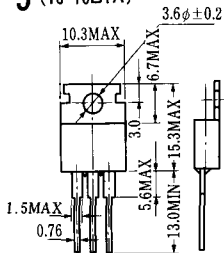
- 1 カソード
- 2 アノード
- 3 ゲート

T-4 (13-10A1A)



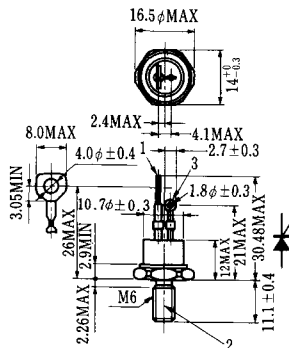
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



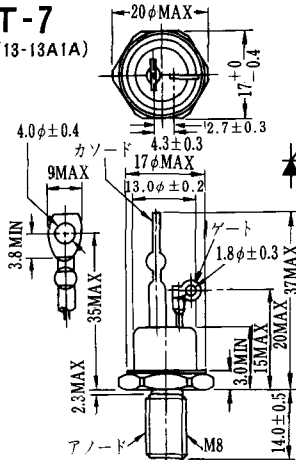
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



- 1 カソード
- 2 アノード
- 3 ゲート

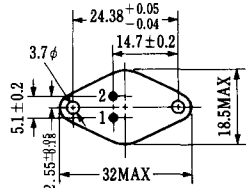
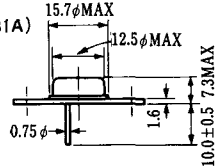
T-7
(13-13A1A)



- アノード

T-8

(13-13B1A)



1. ゲート
2. カソード
アノード(ケース)

T-17 (13-42A1A)



T-18 (13-45D1A)



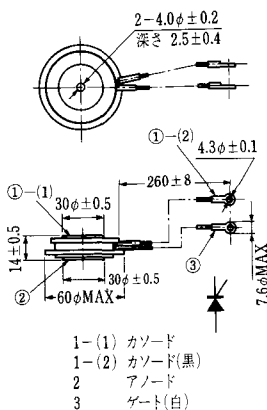
T-19 (13-52B1A)



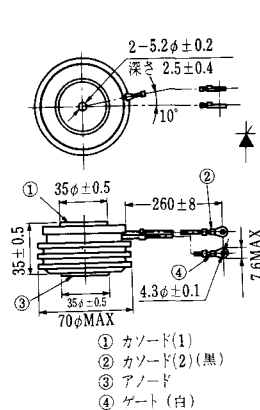
T-20 (13-52C1A)



T-21 (13-60A1A)



T-22 (13-70C1A)



T-23 (13-78A1A)



T-24 (13-100C1A)



T-25 (13-120A2A)



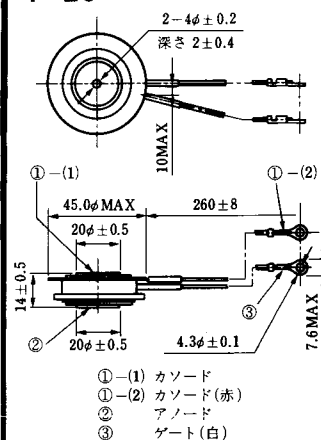
T-26 (13-150A1A)



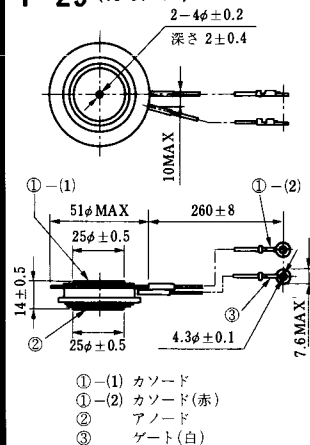
T-27 (13-37A1A)



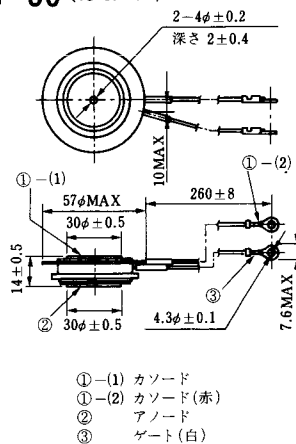
T-28 (13-45E1A)



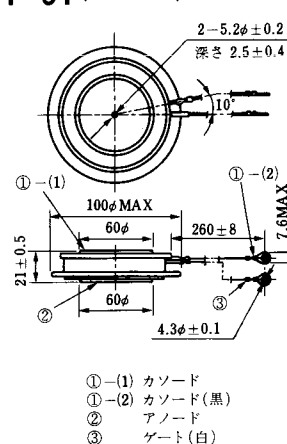
T-29 (13-51A1A)



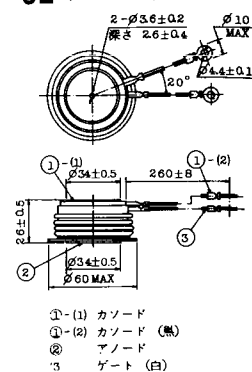
T-30 (13-57A1A)



T-31 (13-100E1A)



T-32 (13-60E3A)



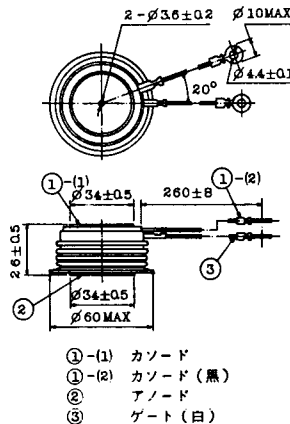
T-41 (13-28A2A)



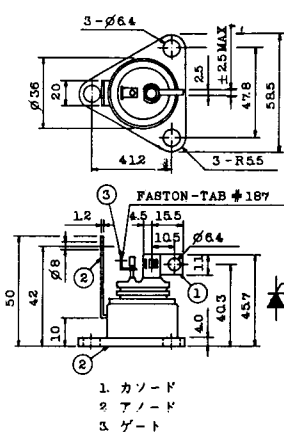
T-42 (13-45F1A)



T-43 (13-60E2A)



T-44 (13-36A1A)



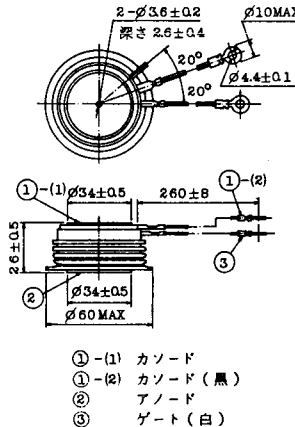
T-45 (13-51B1A)



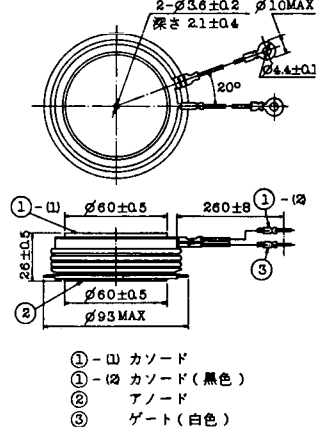
T-46 (13-36B1A)



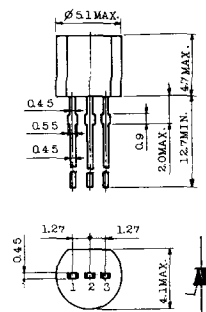
T-47 (13-60E1A)



T-48 (13-93C1A)

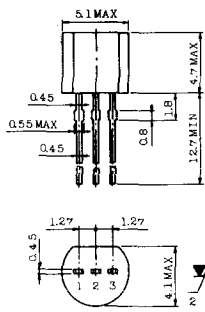


TT-1



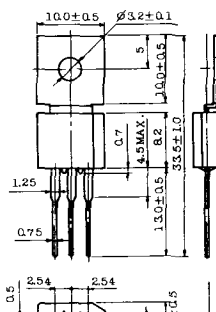
1. ゲート
2. T₂
3. T₁

TT-2



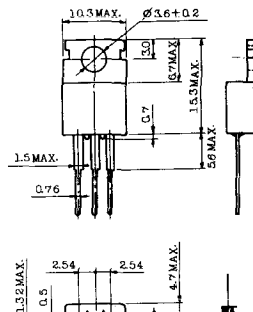
1. T₁
2. ゲート
3. T₂

TT-3



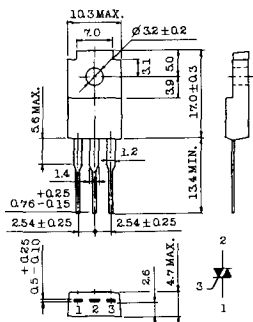
1. T₁
2. T₂
3. ゲート

TT-4



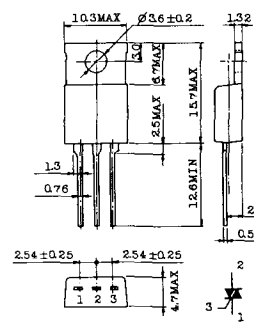
1. T₁
2. T₂
3. ゲート

TT-5



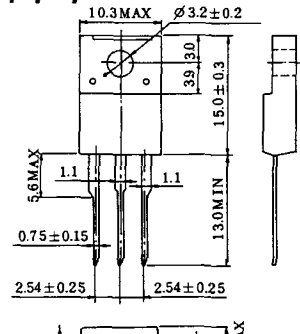
1. T₁
2. T₂
3. ゲート

TT-6



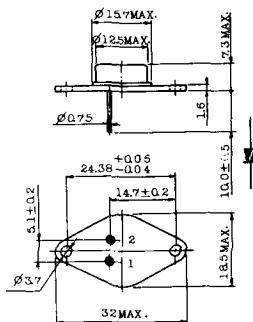
1. T₁
2. T₂ (放熱板)
3. ゲート

TT-7



1. T₁
2. T₂
3. ゲート

TT-8



1. ゲート
2. T₁
- T₂ (ケース)

TT-9



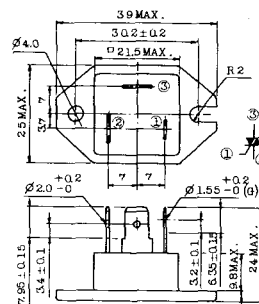
1. ゲート
2. T₁
3. T₂ (ケース)

TT-10



1. ゲート
2. T₁
3. T₂ (ケース)

TT-11



1. ゲート (ファストン端子 #187)
2. T₁ (" #250)
3. T₂ (" #250)

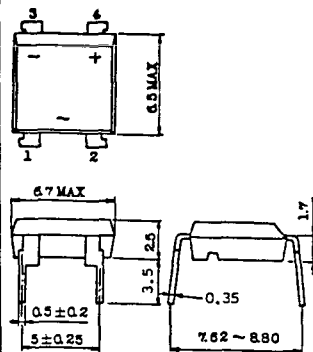
TT-12



ゲート端子詳細

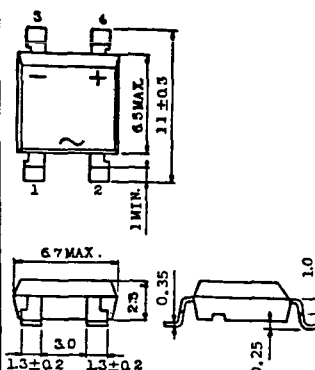
- ① ゲート (ファストン端子 #187)
- ② T₁ (" #250)
- ③ T₂ (" #250)

TT-13



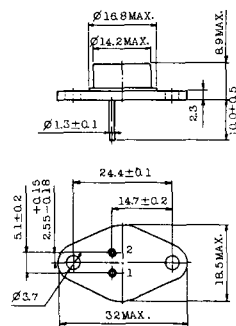
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-14



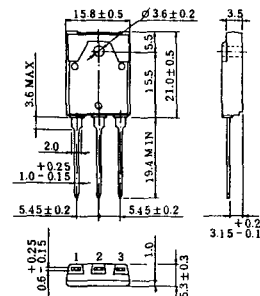
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-15 (13-14A1B)

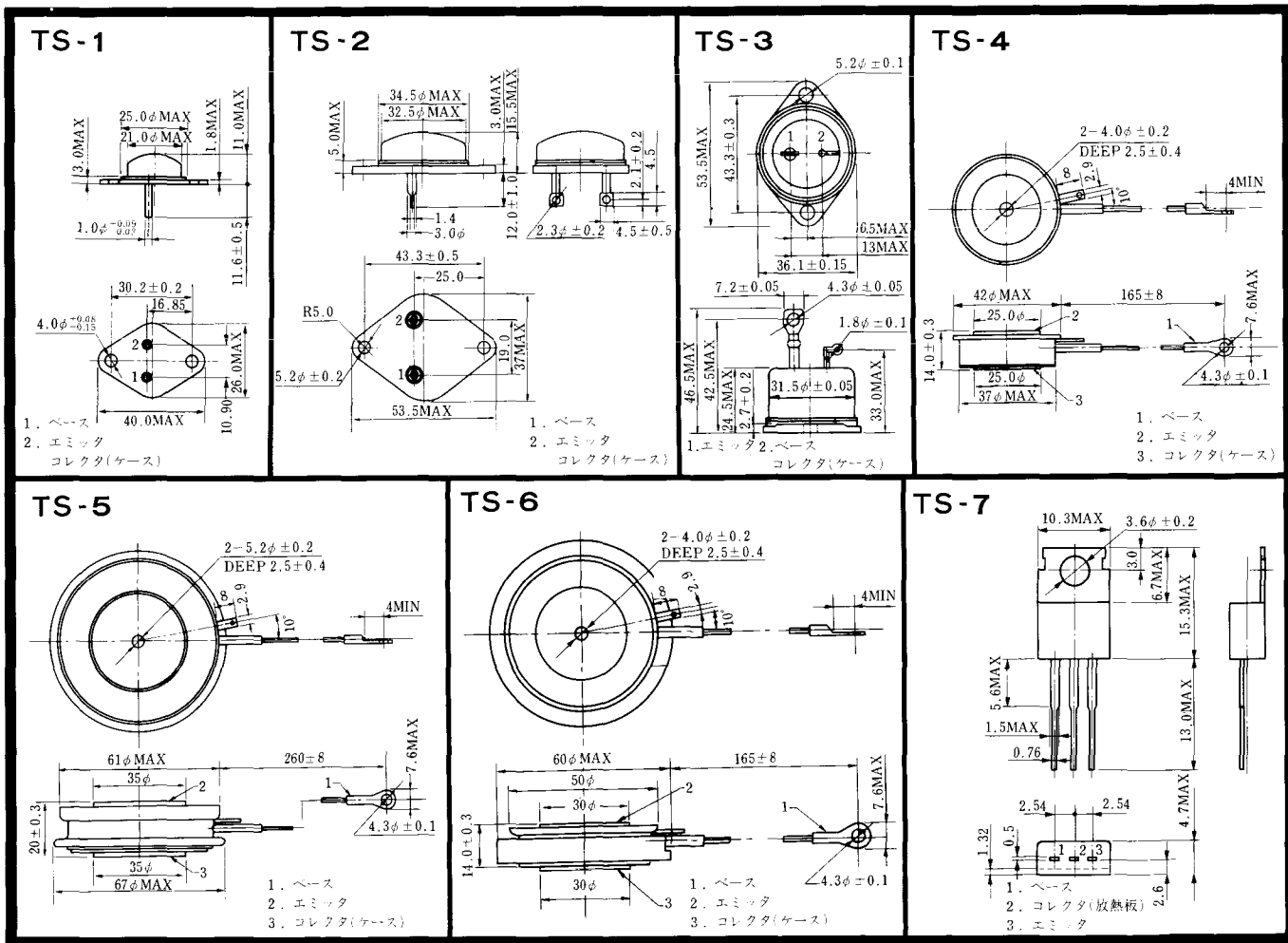


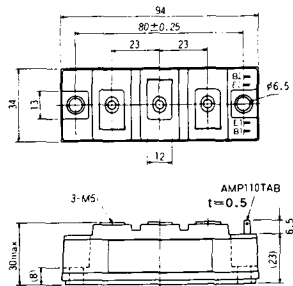
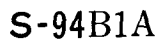
1. ゲート
2. T₁
- T₂ (ケース)

TT-16 (13-16A1A)



1. T₁
2. T₂
3. ゲート





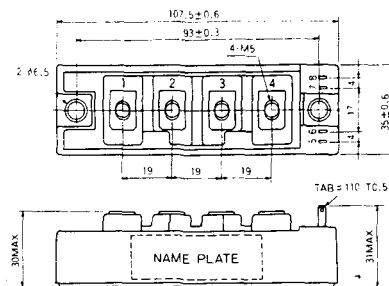
S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



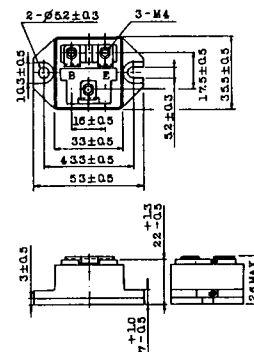
2-22B1A



2-27A4A



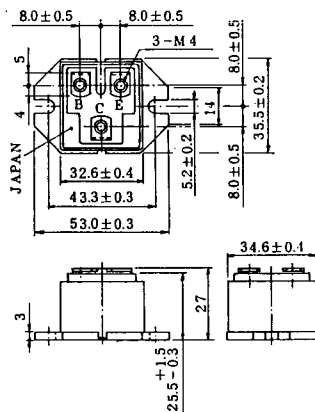
2-33C1A



2-33D1A



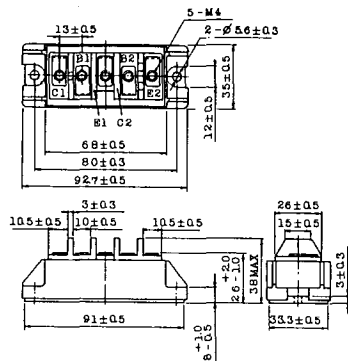
2-33F1A



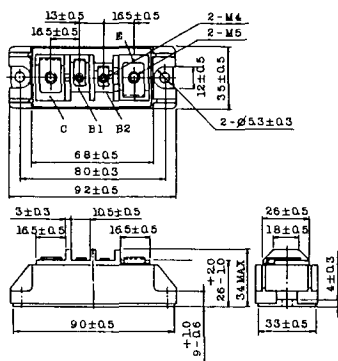
2-37A1A



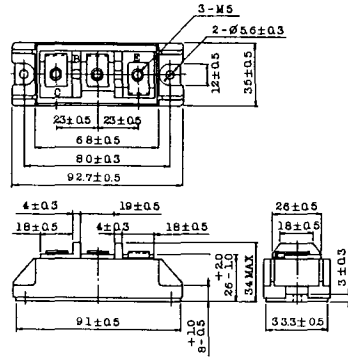
2-68B2A



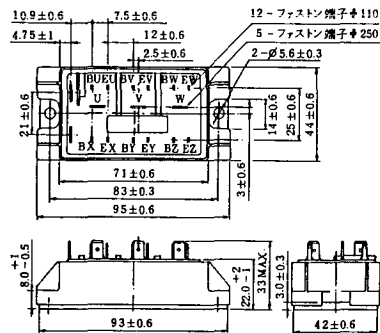
2-68C1A



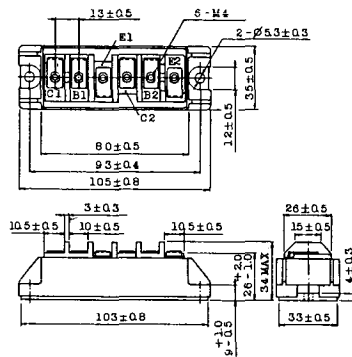
2-68D2A



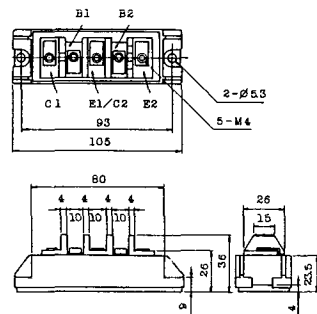
2-72A3A



2-80A1A



2-80B1A



BBT-II

BBTII
1D200A-020



BBT-III

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



BBT-III

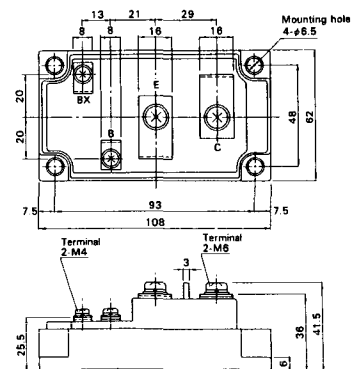
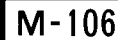
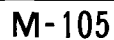
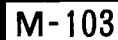
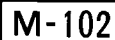
BBTIII
ETN01-055
ET1257



BBT-IV

BBTIV
1D500A-030





M-107



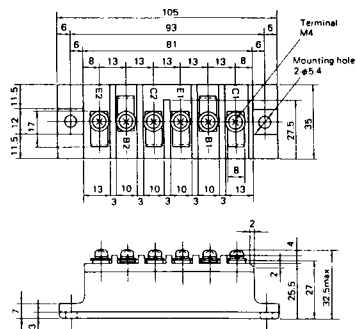
M-116



M-201



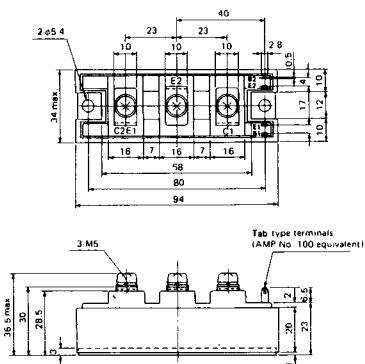
M-202



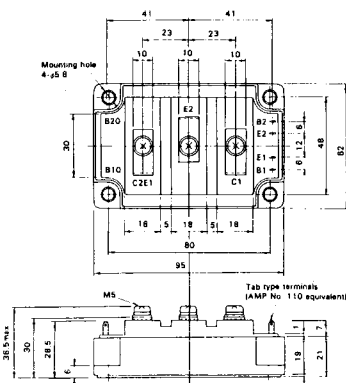
M-203



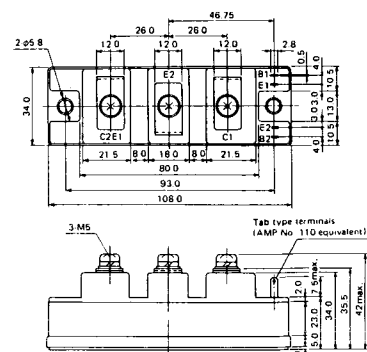
M-204



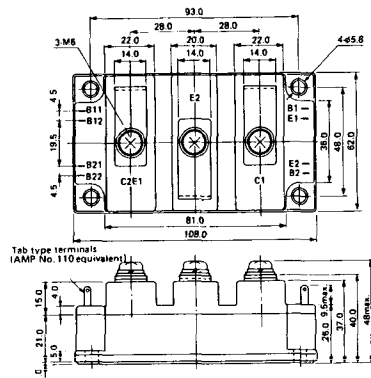
M-205



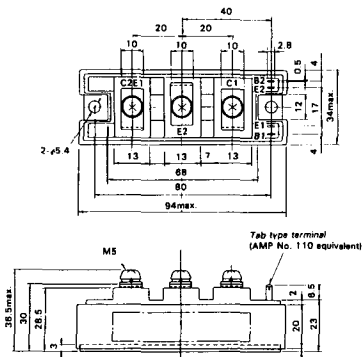
M-206



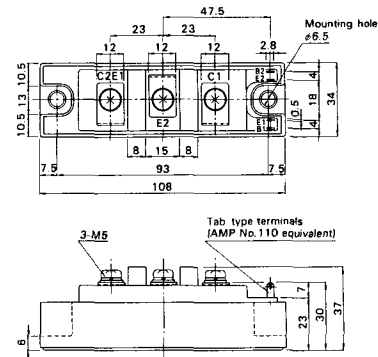
M-207



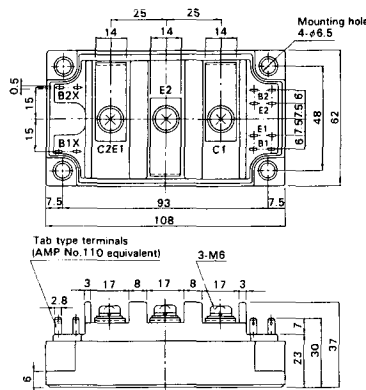
M-208



M-209



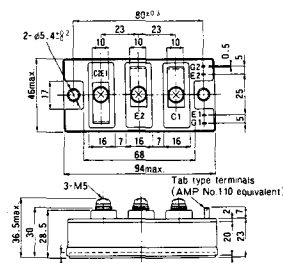
M-210



M-211



M-212



M-213



M-214

M-215



M-216



M-217



M-218



M-601



M-602



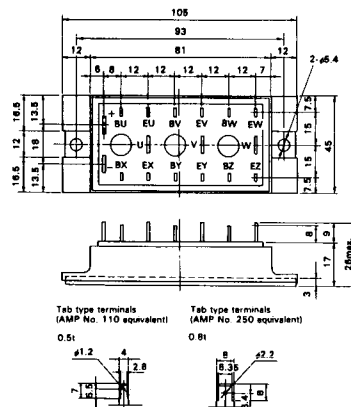
M-603



M-604



M-605



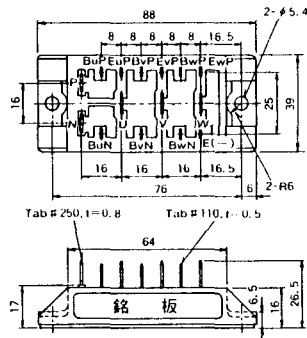
M-606



M-2E6A



M-2F6A



M-2G6A



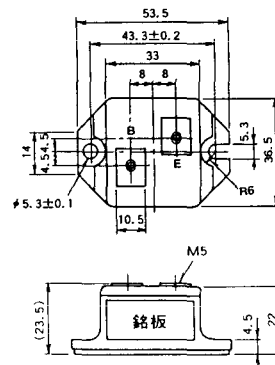
M-3A1A



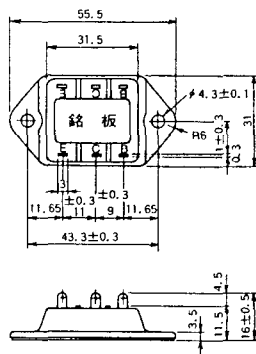
M-3B1A



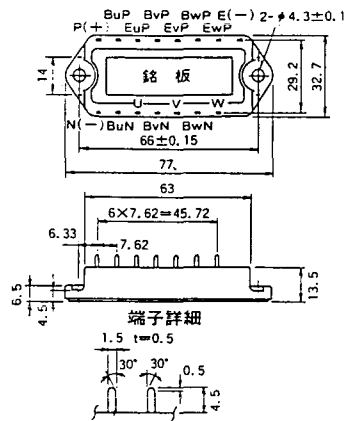
M-3B1B



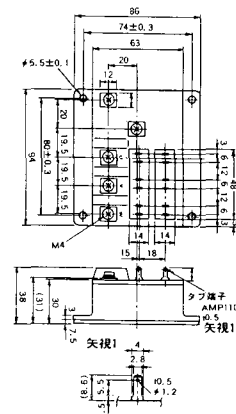
M-3C1A



M-3D6A



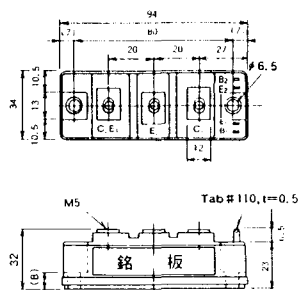
M-3E6A



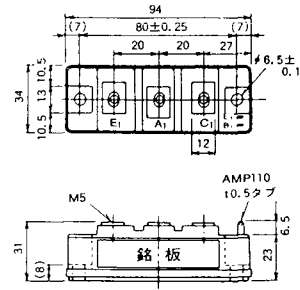
M-4A1A



M-4A2A



M-4A1B



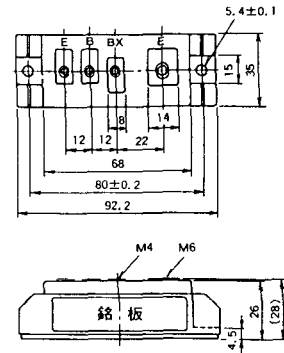
M-5C2A



M-5D2A



M-6A1A



M-7A1A



M-7B1A



M-8A1A



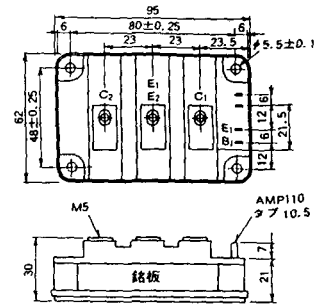
M-8A1B



M-8A2A



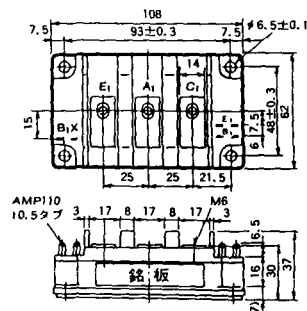
M-8A2B



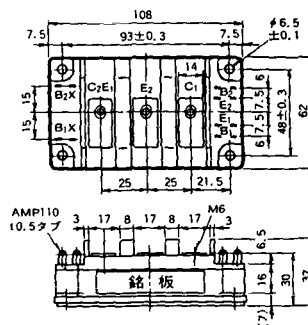
M-8B2A



M-9A1A



M-9A2A



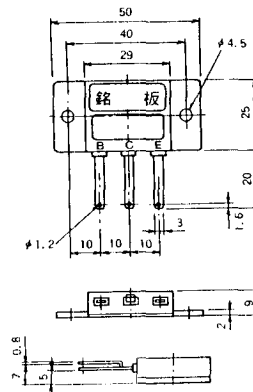
M-9B1A



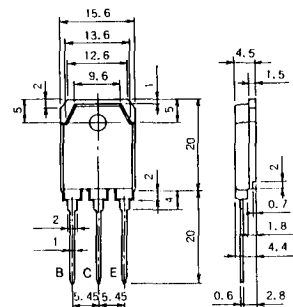
M-9C2A



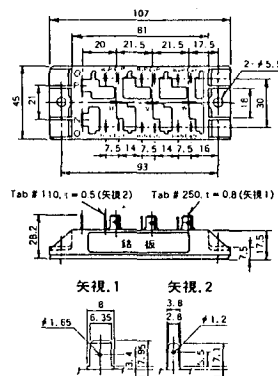
M-1A1B



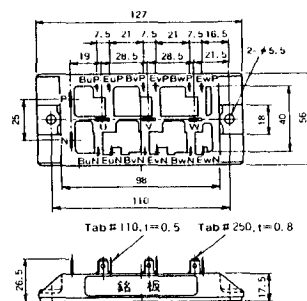
M-1A1C



M-2E6B



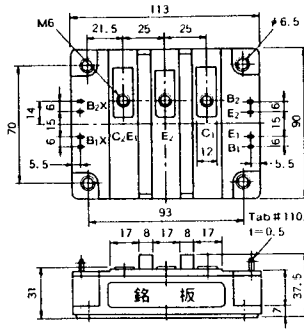
M-2E6C



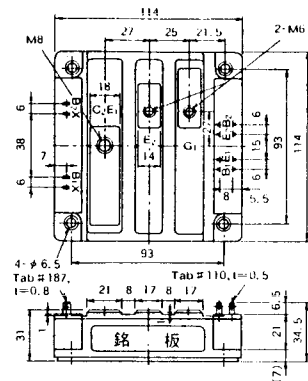
M-10A2A



M-10A2B



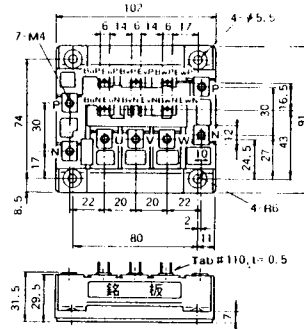
M-11A2A



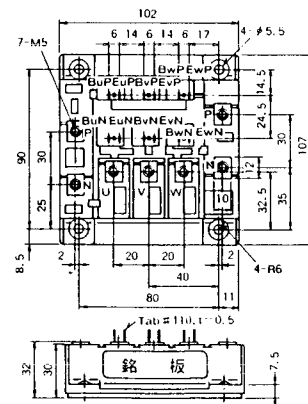
M-12A6A



M-12B6A



M-12B6B



M-4A2D



M-4A2E



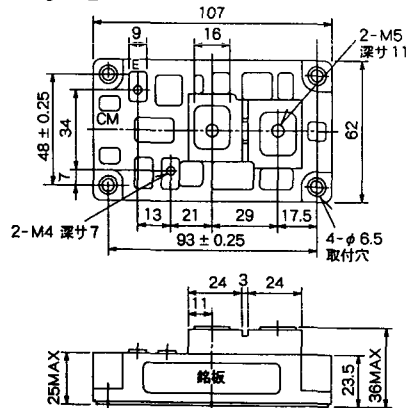
M-4C2A



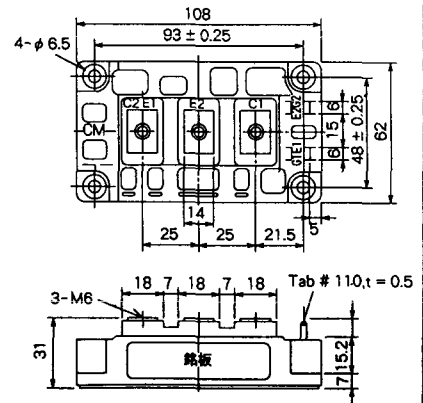
M-4C2B



M-9B1C



M-9D2A



M-9D2B



M-10A2C



H-101



Weight :480g

TERMINALS

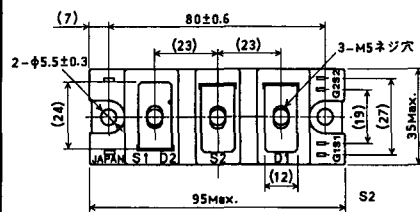
H-201



H-202



LF-J



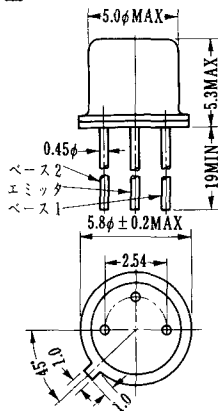
LF-K



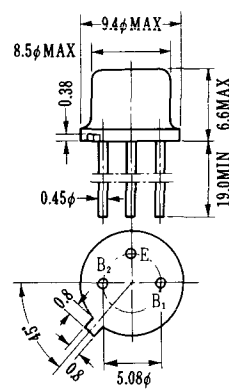
U-1



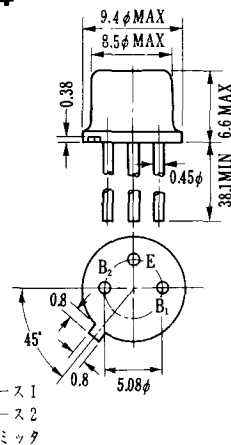
U-2



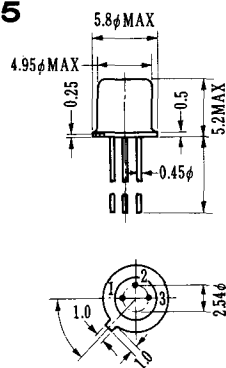
U-3



U-4

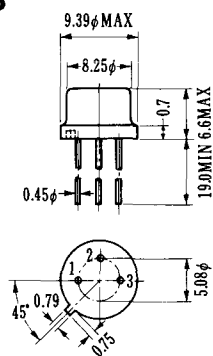


U-5



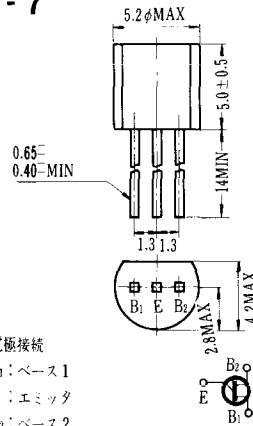
1. BASE 1
2. EMITTER
3. BASE 2 (CASE)

U-6



1. BASE (2)
2. EMITTER
3. BASE (1)

U-7



U-8

