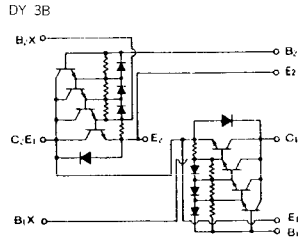


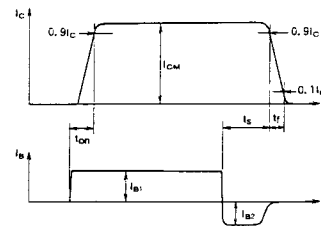
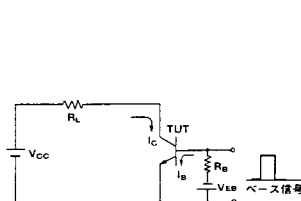
トランジスタ・モジュール [NPN, ダブルアーム (直列接続)]



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

型名	最大定格 (T _J = 25°C)											電気的特性									
	V _{CE0} (V)	V _{CEX} (5US) (注1) (V)	V _{EB0} (V)	I _c (A)	I _B (A)	I _F (A)	I _{FM} (注2) (A)	P _c (注3) (W)	T _J (°C)	T _{stg} (°C)	V _{CEO} (注4) (V)	I _{CEX} (mA)		I _{EB0} (mA)		V _{CE0} (5US) (V)		h _{FE}			
												最大	V _{CE} (V)	V _{EB} (V)	最大	V _{EB} (V)	最小	I _c (A)	最小	V _{CE} (V)	I _c (A)
QM100DY-H	600	600	7	100	6.0	100	1000	620	150	-40~125	2500	2	600	2	100	7			75/100	2/5	100
QM100DY-2H	1000	1000	7	100	5.0	100	1000	800	150	-40~125	2500	2	1000	2	400	7			75/100	2.8/5	100
QM100DY-24	1200	1200	7	100	5.0	100	1000	800	150	-40~125	2500	2	1200	2	400	7			75	5	100
QM100DY-HB	600	600	7	100	6.0	100	1000	620	150	-40~125	2500	2	600	2	100	7			750	2.5	100
QM100DY-2HB	1000	1000	7	100	5.0	100	1000	800	150	-40~125	2500	4	1000	2	100	7			750	4	100
QM150DY-H	600	600	7	150	9.0	150	1500	690	150	-40~125	2500	2	600	2	150	7			75/100	2/5	150
QM150DY-2H	1000	1000	7	150	8.0	150	1500	1000	150	-40~125	2500	2	1000	2	200	7			75/100	2.8/5	150
QM150DY-24	1200	1200	7	150	8.0	150	1500	1000	150	-40~125	2500	2	1200	2	400	7			75	5	150
QM150DY-HB	600	600	7	150	9.0	150	1500	690	150	-40~125	2500	2	600	2	150	7			750	2.5	150
QM150DY-2HB	1000	1000	7	150	8.0	150	1500	1000	150	-40~125	2500	4	1000	2	100	7			750	4.0	150
QM150DY-3H	1400	1400	7	150	16	150	1500	1500	150	-40~125	2500	15	1400	3	400	7			100	5.0	150
QM200DY-H	600	600	7	200	12	200	2000	1050	150	-40~125	2500	4	600	2	800	7			75/100	2/5	200
QM200DY-2H	1000	1000	7	200	10	200	2000	1560	150	-40~125	2500	4	1000	2	800	7			75/100	2.8/5	200
QM200DY-24	1200	1200	7	200	10	200	2000	1560	150	-40~125	2500	4	1200	2	300	7			75	5	200
QM200DY-HB	600	600	7	200	12	200	2000	1240	150	-40~125	2500	4	600	2	200	7			750	2.5	200
QM300DY-2H	1000	1000	7	300	16	300	3000	1980	150	-40~125	2500	4	1000	2	400	7			75/100	2.8/5	300
QM300DY-24	1200	1200	7	300	16	300	3000	1980	150	-40~125	2500	4	1200	2	400	7			75	5	300

■スイッチング時間測定回路



(T _J = 25°C)											エミッタ・コレクタ間ダイオード					熱抵抗		等価回路	外形図	記	事	型	名
飽和電圧 (V)		I _C	I _B	スイッチング時間 (μs)			I _{B1}	I _{B2}	V _{CC}	I _C	V _F (V)	t _{rr}			θ _{J-C} (°C/W)								
V _{CE}	V _{BE}			t _{on}	t _{off}	t _r						I _F	I _R	V _{RR}	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	最大							
2.0	2.5	100	1.3	2.0	12	3.0	2.0	-2.0	300	100	1.75	100				0.2	0.65	DY-1B	M-8A2A	UL認定済	QM100DY-H		
2.5	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100				0.155	0.65	DY-2B	M-9A2A	UL認定済	QM100DY-2H		
3.0	3.5	100	2.0	3.0	15	3.0	2.0	-2.0	600	100	1.8	100				0.155	0.65	DY-2B	M-9A2A	UL認定済	QM100DY-24		
2.5	3.0	100	0.13	2.5	10	2.0	0.2	-2.0	300	100	1.8	100				0.2	0.65	DY-2A	M-8A2A	UL認定済	QM100DY-HB		
4.0	4.0	100	0.13	2.5	15	3.0	0.2	-2.0	600	100	1.8	100				0.155	0.65	DY-3B	M-9A2A	UL認定済	QM100DY-2HB		
2.0	2.5	150	2.0	2.5	12	3.0	3.0	-3.0	300	150	1.85	150				0.18	0.6	DY-1B	M-8A2A	UL認定済	QM150DY-H		
2.5	3.5	150	3.0	3.0	15	3.0	3.0	-3.0	600	150	1.8	150				0.125	0.6	DY-2B	M-9A2A	UL認定済	QM150DY-2H		
3.0	3.5	150	3.0	3.0	15	3.0	3.0	-3.0	600	150	1.8	150				0.125	0.6	DY-2B	M-9A2A	UL認定済	QM150DY-24		
2.5	3.0	150	0.2	2.5	10	2.0	0.3	-3.0	300	150	1.8	150				0.18	0.6	DY-2A	M-8A2A	UL認定済	QM150DY-HB		
4.0	4.0	150	0.2	2.5	15	3.0	0.3	-3.0	600	150	1.8	150				0.125	0.6	DY-3B	M-9A2A	UL認定済	QM150DY-2HB		
3.0	3.5	150	3.0	3.0	20	3.0	3.0	-3.0	800	150	1.8	150				0.08	0.35	DY-2B	M-10A2B	UL認定済	QM150DY-3H		
2.0	2.5	200	2.6	2.0	12	3.0	4.0	-4.0	300	200	1.75	200				0.12	0.33	DY-1B	M-9A2A	UL認定済	QM200DY-H		
2.5	3.5	200	4.0	3.0	15	3.0	4.0	-4.0	600	200	1.8	200				0.08	0.35	DY-2B	M-10A2A	UL認定済	QM200DY-2H		
3.0	3.5	200	4.0	3.0	15	3.0	4.0	-4.0	600	200	1.8	200				0.08	0.35	DY-2B	M-10A2A	UL認定済	QM200DY-24		
2.5	3.0	200	0.26	2.5	10	2.0	0.4	-4.0	300	200	1.8	200				0.1	0.33	DY-2B	M-8A2C	UL認定済	QM200DY-HB		
2.5	3.5	300	6.0	3.0	15	3.0	6.0	-6.0	600	300	1.8	300				0.063	0.3	DY-2B	M-11A2A	UL認定済	QM300DY-2H		
3.0	3.5	300	6.0	3.0	15	3.0	6.0	-6.0	600	300	1.8	300				0.063	0.3	DY-2B	M-11A2A	UL認定済	QM300DY-24		

FD-9



FD-10



FD-11

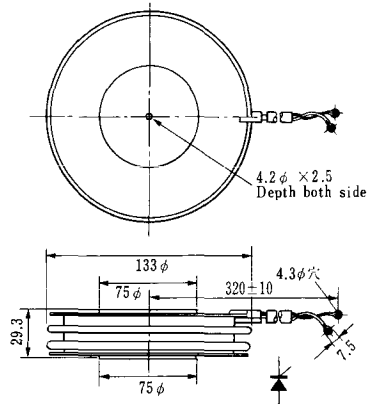
FD-12



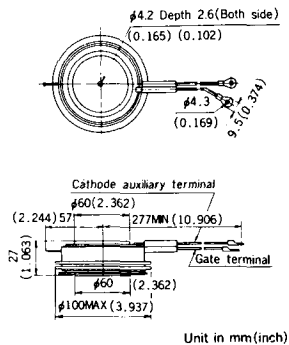


《寸法図単位：mm》

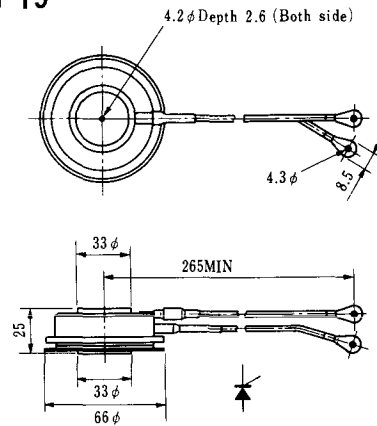
H-17



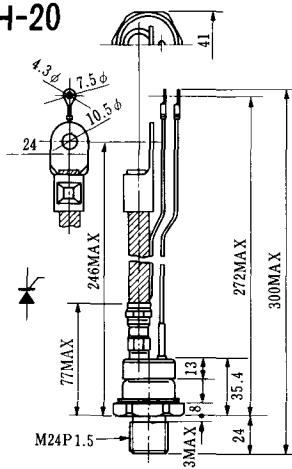
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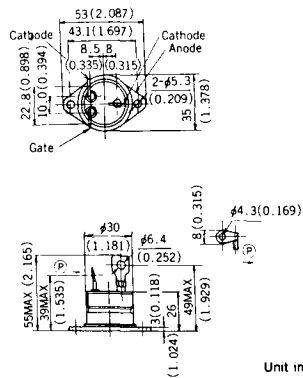
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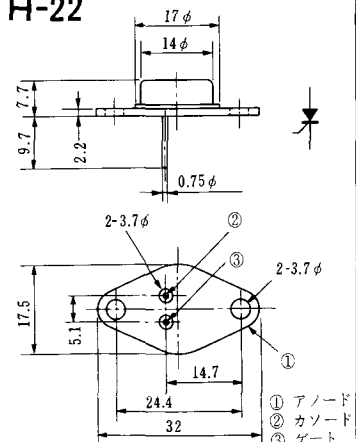
H-20



H-21



H-22



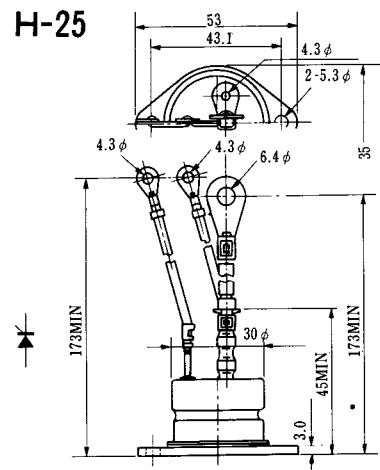
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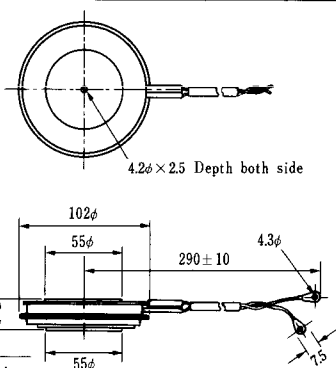
H-24



H-25



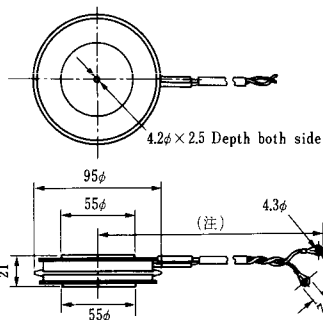
H-26



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

CA12	
------	--

H-27

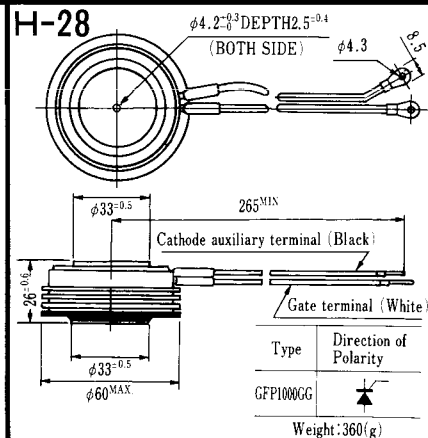


Type	Direction of polarity
------	-----------------------

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





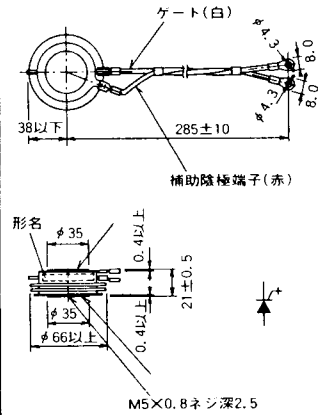
M-25



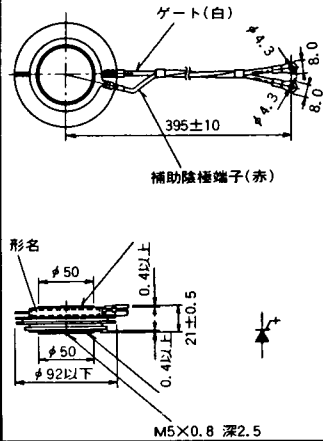
M-26



M-27



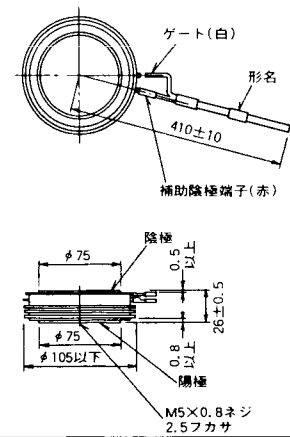
M-28



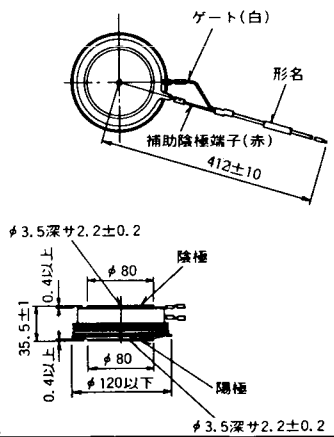
M-29



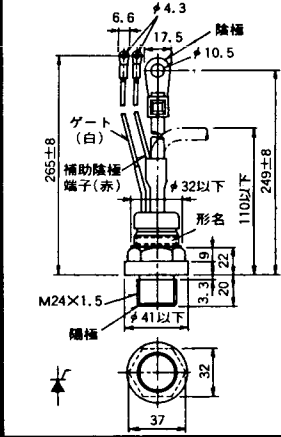
M-30



M-31



M-32



M-33



M-34



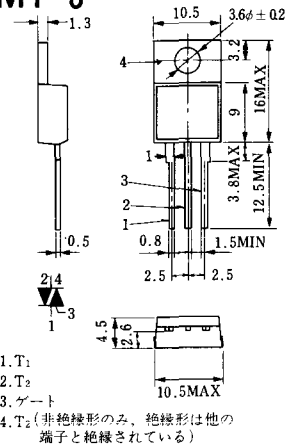
MT-1



MT-2



MT-3



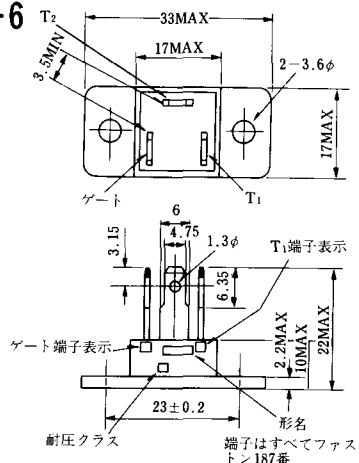
MT-4



MT-5



MT-6



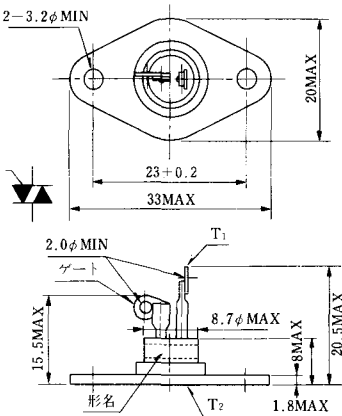
MT-7



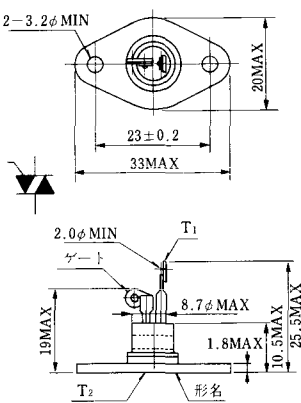
MT-8



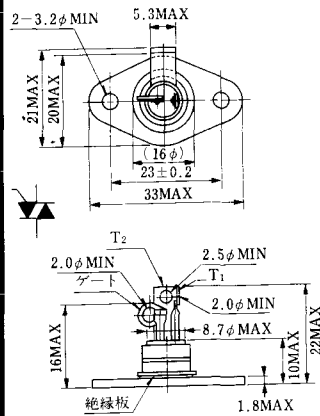
MT-9



MT-10



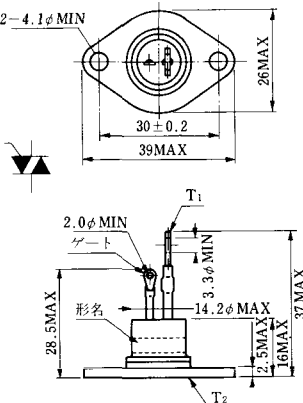
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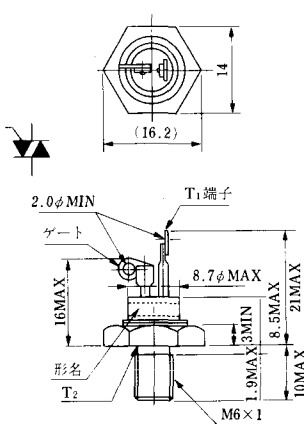
MT-12



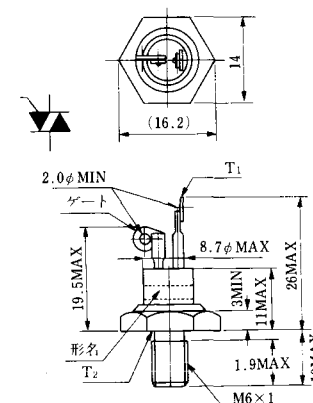
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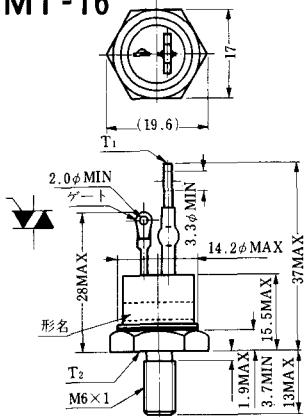
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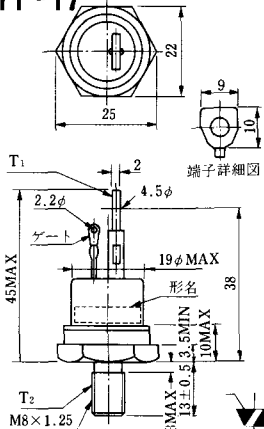
MT-15



MT-16

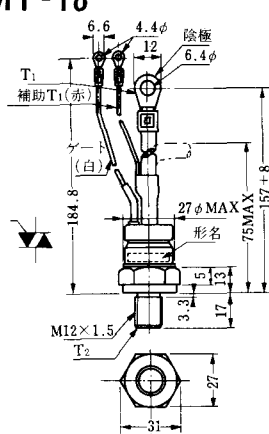


MT-17

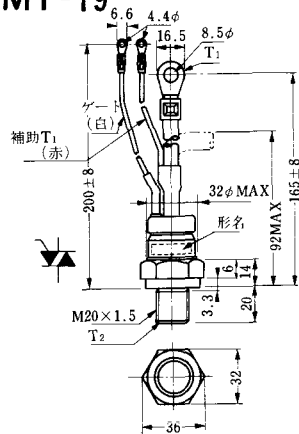


端子詳細図

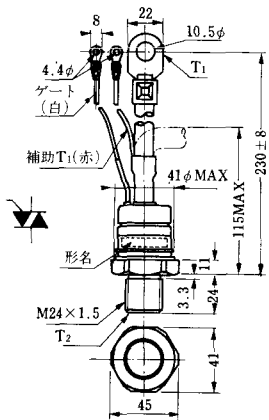
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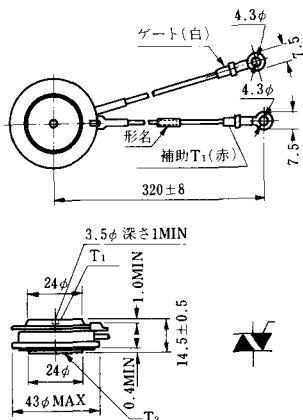
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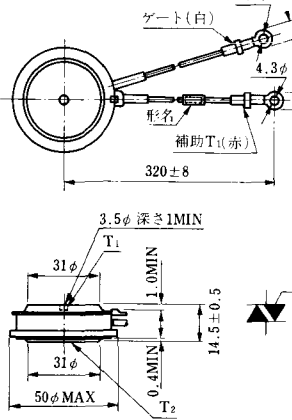
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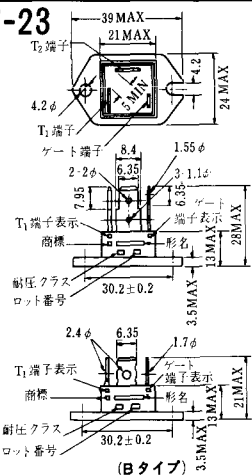
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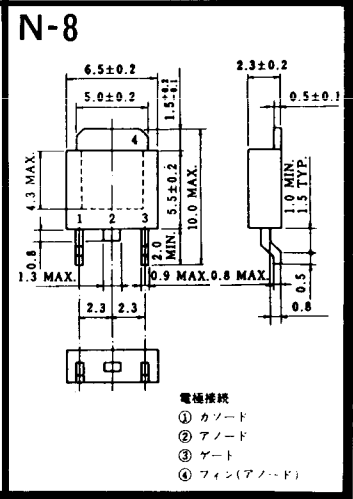
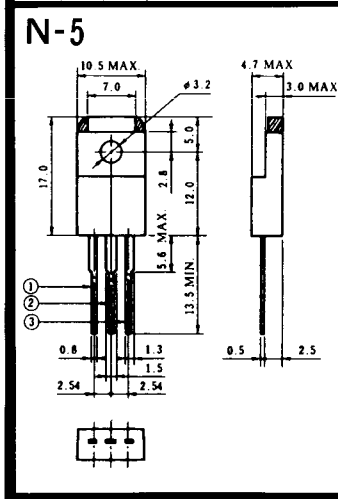
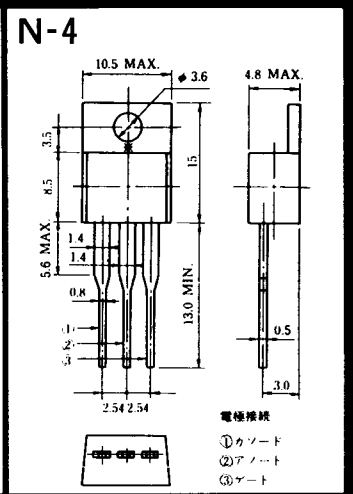
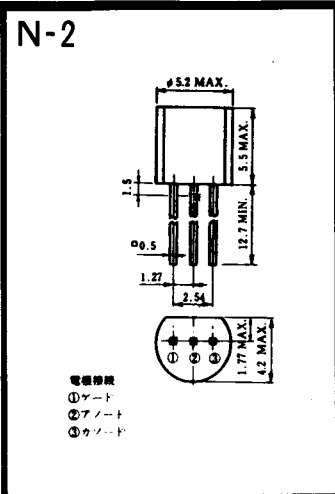
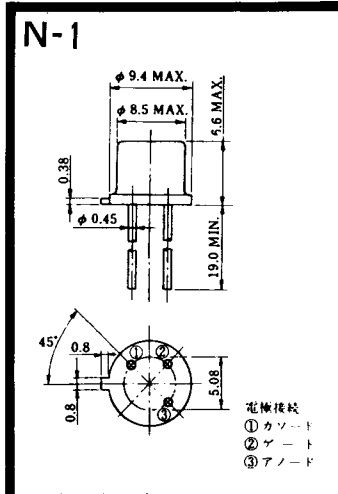


MT-22



MT-23





NA-1

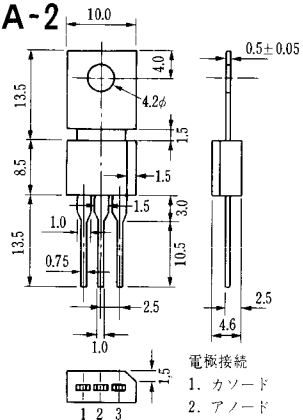


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

NA-2

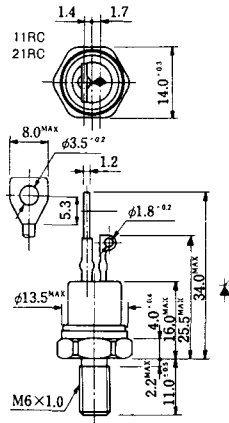


電極接続

1. カソード
2. アノード
3. ゲート

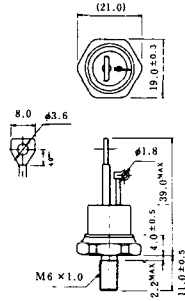
JEDEC: TO-202AA

NI-1



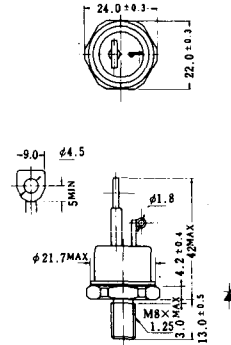
NI-2

29RD



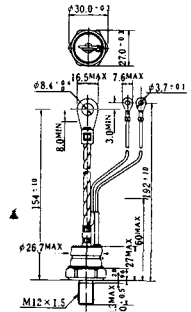
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39RC
59RC
39RF
59RF



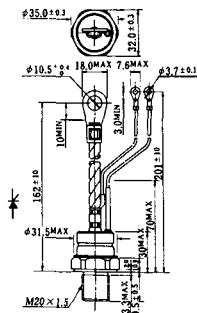
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88RS, 78RT, 88RLD, 88RLE,
88RLF, 88RLG, 88RLH, 108RLE



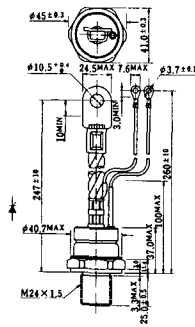
NI-5

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



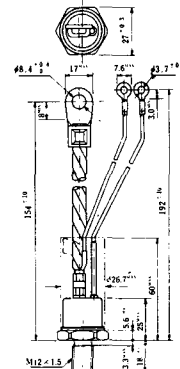
NI-6

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



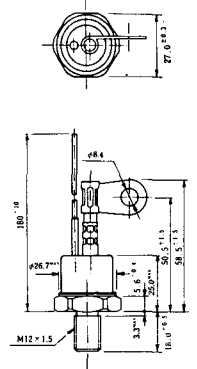
NI-7

89RW_{JL}
129RW_{JL}



NI-8

89RW
129RW





NI-24

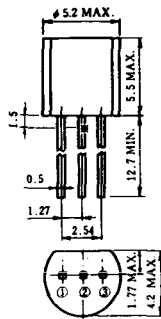
2001PGB^r JE



NI-25

NI-26

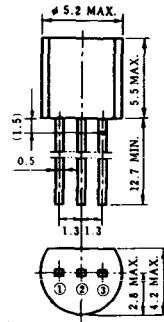
NT-1



電極接続

- ① T₁
- ② ゲート
- ③ T₂

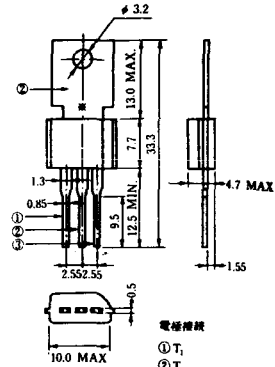
NT-2



電極接続

- ① T₁
- ② ゲート
- ③ T₂

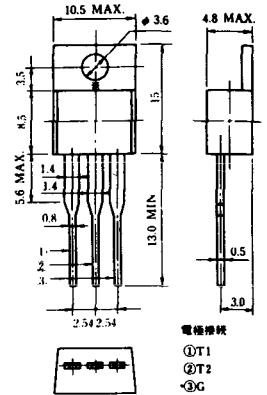
NT-3



電極接続

- ① T₁
- ② T₂
- ③ ゲート

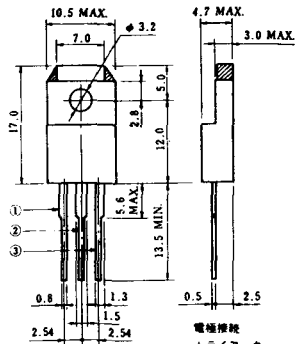
NT-4



電極接続

- ① T₁
- ② T₂
- ③ G

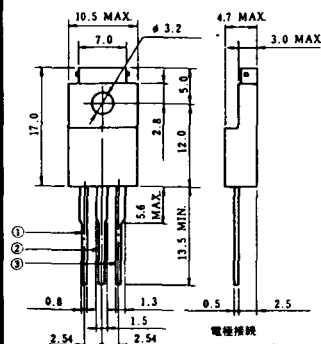
NT-5



電極接続
トライアック

- ① T₁
- ② T₂
- ③ ゲート

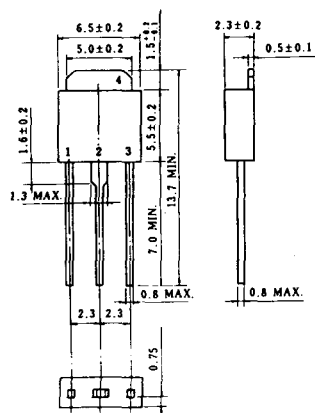
NT-6



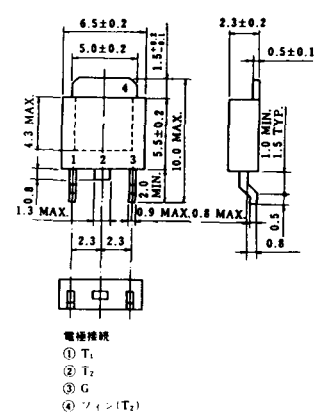
電極接続
トライアック

- ① T₁
- ② T₂
- ③ ゲート

NT-7



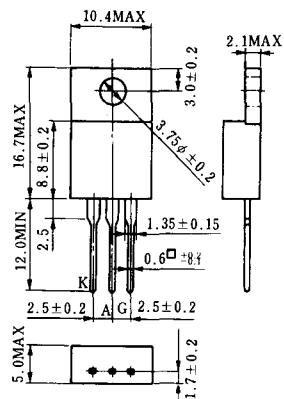
NT-8



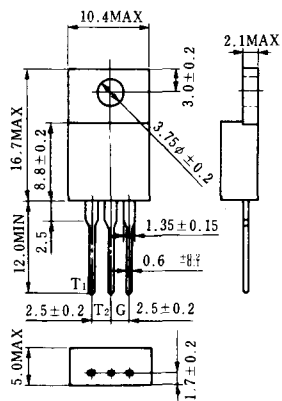
電極接続

- ① T₁
- ② T₂
- ③ G
- ④ シフト(T₂)

S-1



ST-1

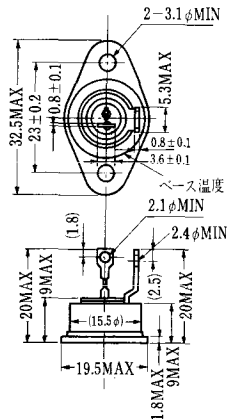


SAT-1



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

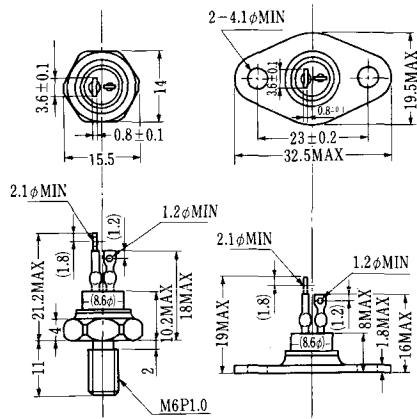
SAT-2



SAT-3



SAT-4



SAT-5



SAT-6



SAT-7



SAT-8



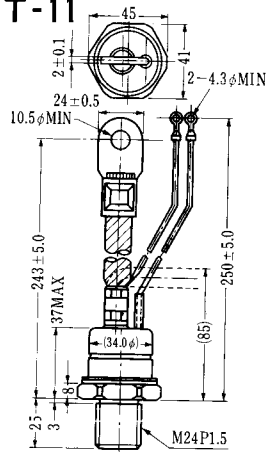
SAT-9



SAT-10



SAT-11



SY-1 (1096A)



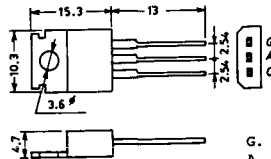
C: Cathode
A: Anode
G: Gate

SY-2 (1151)



G: Gate
A: Anode
C: Cathode

SY-3 (1104)



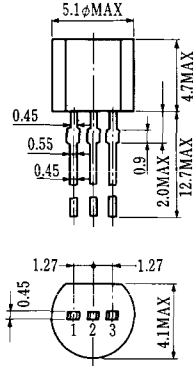
G: Gate
A: Anode
C: Cathode

SY-4 (1150)



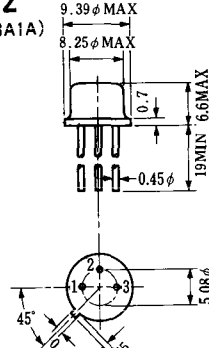
G: Gate
A: Anode
C: Cathode

T-1 (13-5A1A)



- 1 ゲート
- 2 アノード
- 3 カソード

T-2 (13-8A1A)



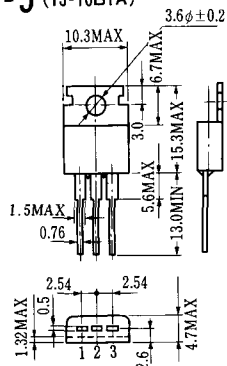
1. カソード
2. ゲート
3. アノード(ケース)

T-3 (13-8C1A)



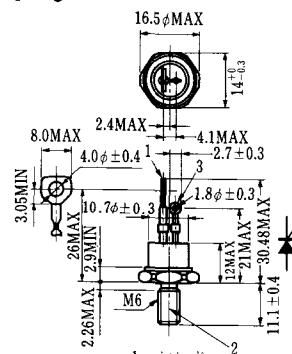
- 1 カソード
- 2 アノード
- 3 ゲート

T-5 (13-10B1A)



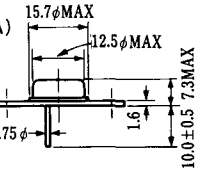
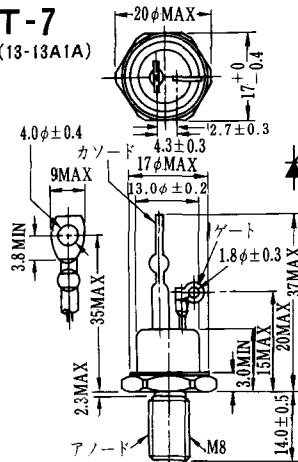
- 1 カソード
- 2 アノード
- 3 ゲート

T-6 (13-11D1A)



- 1 カソード
- 2 アノード
- 3 ゲート

T-7 (13-13A1A)

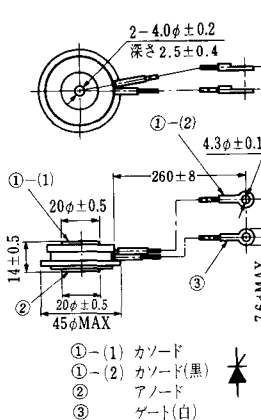


1. ゲート
2. カソード
3. アノード(ケース)

T-17 (13-42A1A)



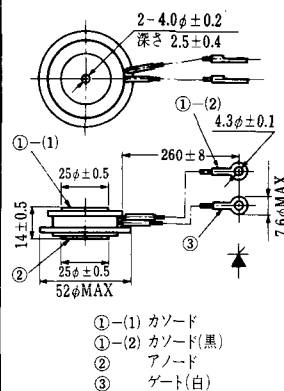
T-18 (13-45D1A)



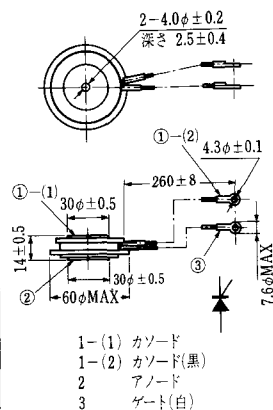
T-19 (13-52B1A)



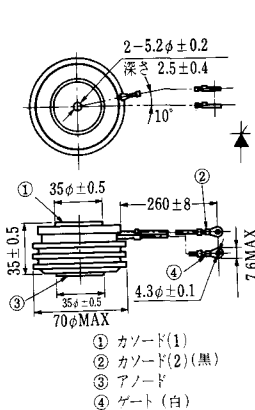
T-20 (13-52C1A)



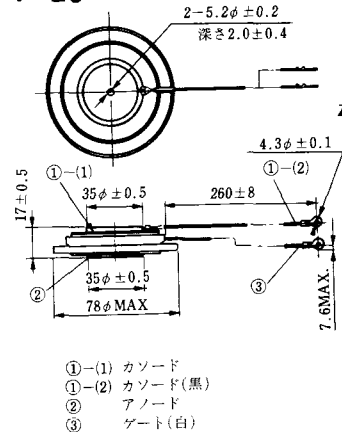
T-21 (13-60A1A)



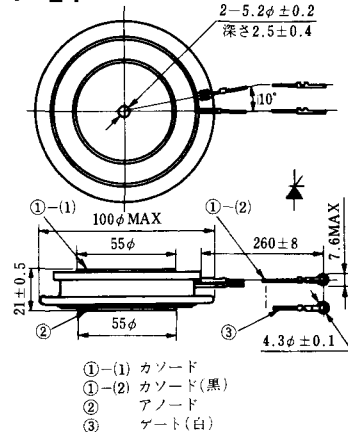
T-22 (13-70C1A)



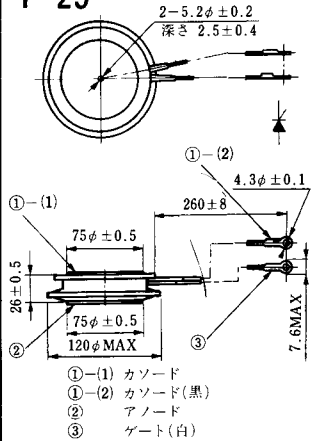
T-23 (13-78A1A)



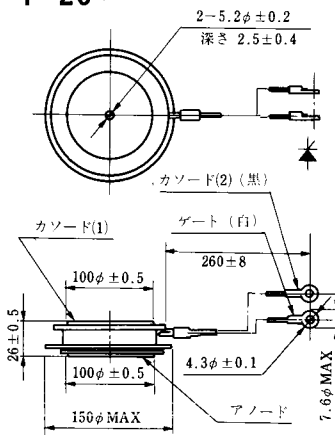
T-24 (13-100C1A)



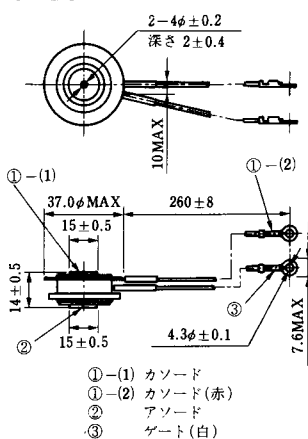
T-25 (13-120A2A)



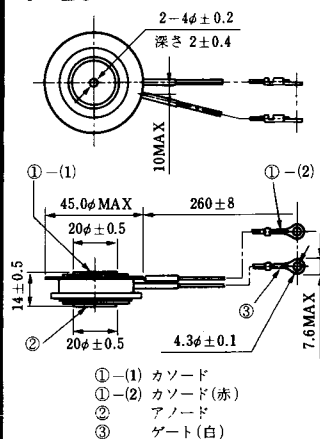
T-26 (13-150A1A)



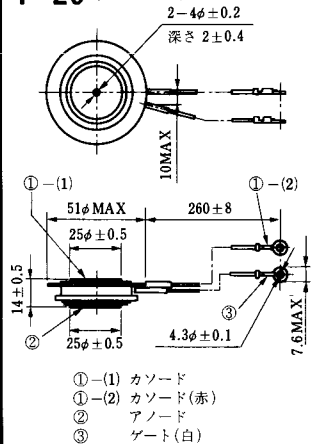
T-27 (13-37A1A)



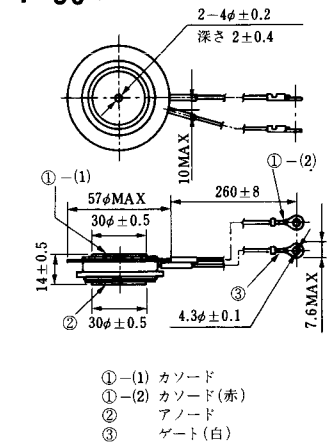
T-28 (13-45E1A)



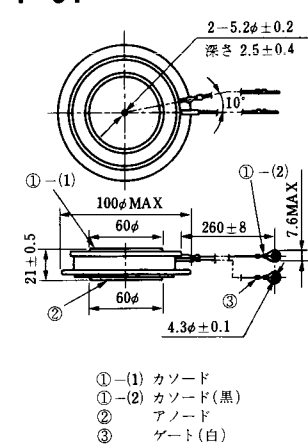
T-29 (13-51A1A)



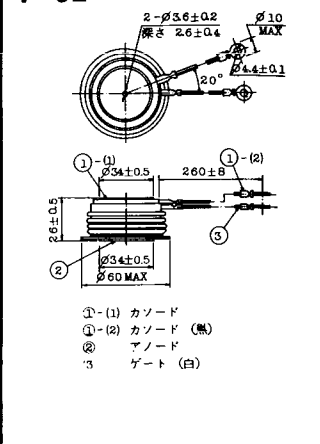
T-30 (13-57A1A)



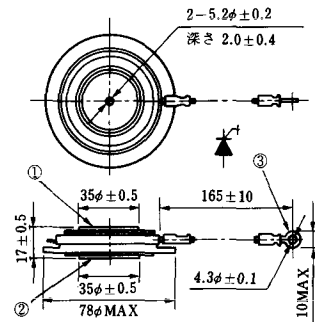
T-31 (13-100E1A)



T-32 (13-60E3A)

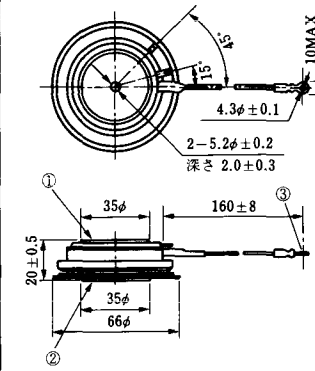


T-33 (13-78B1A)



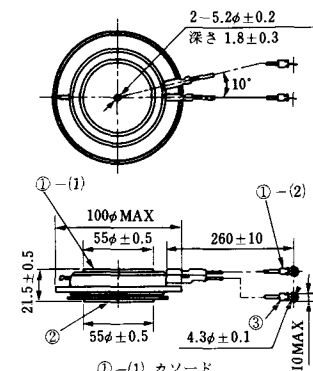
- ① カソード
- ② アノード
- ③ ゲート

T-34 (13-66A1A)



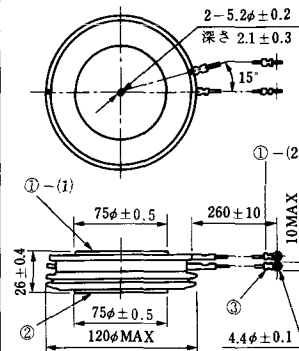
- ① カソード
- ② アノード
- ③ ゲート

T-35 (13-100D1A)



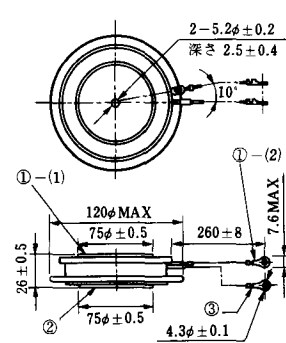
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-36 (13-120E1A)



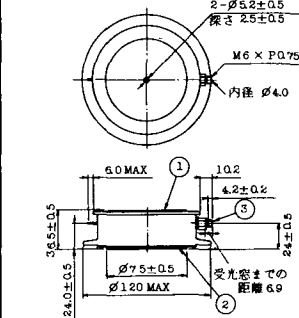
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-37 (13-120A1A)



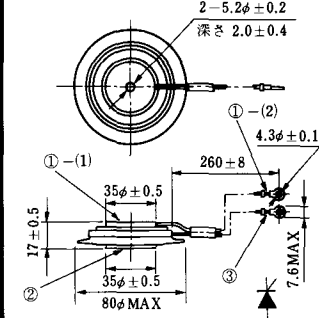
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

T-38 (13-120C1A)



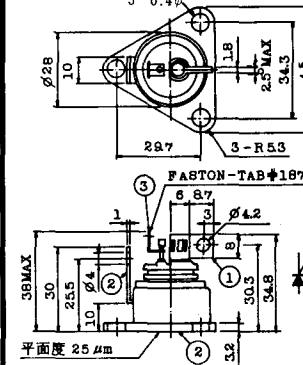
- ① カソード
- ② アノード
- ③ ゲート

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)



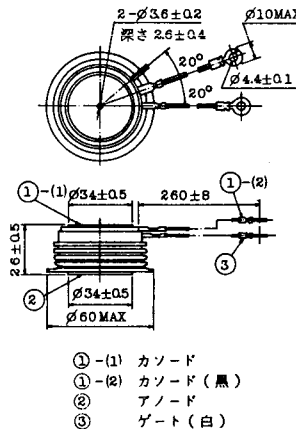
T-45 (13-51B1A)



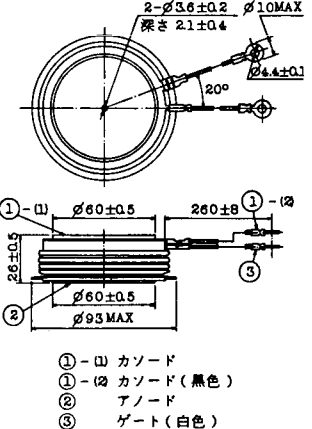
T-46 (13-36B1A)



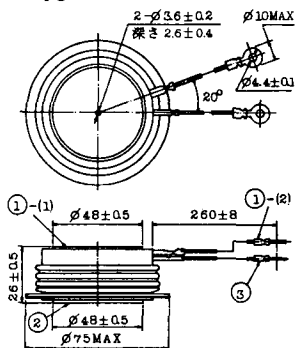
T-47 (13-60E1A)



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)



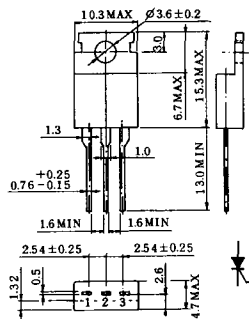
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



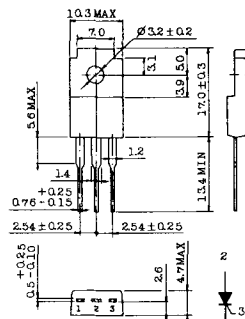
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



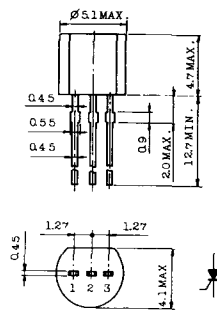
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



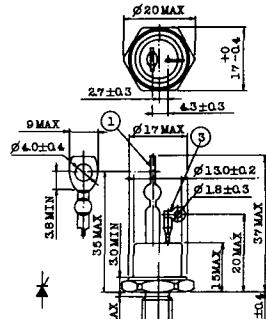
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



- 1 カソード
- 2 アノード
- 3 アノード

T-56 (13-13C1A)



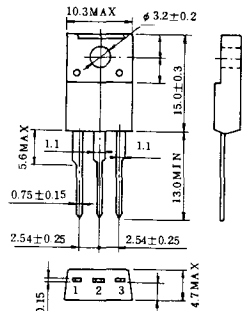
- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



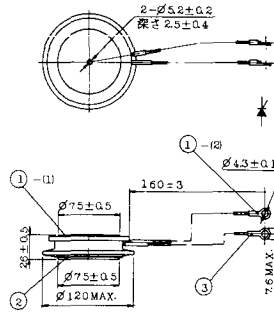
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



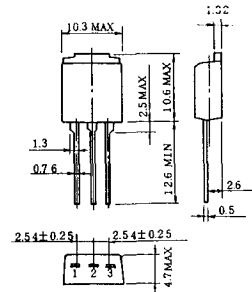
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



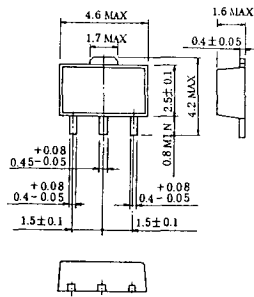
- 1-1) カソード
- 1-12) カソード (黒)
- 2) アノード
- 3) ゲート (白)

T-60



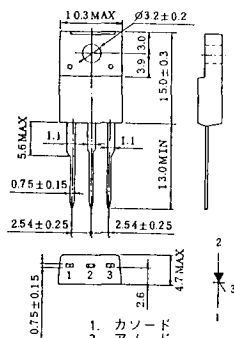
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



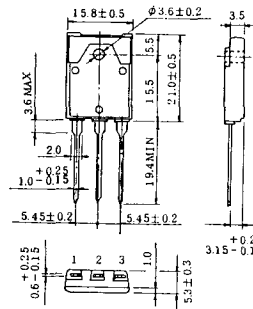
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)



1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



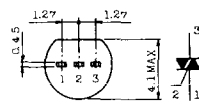
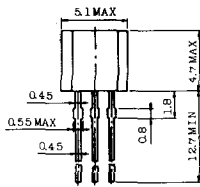
1. カソード
2. アノード
3. ゲート

TT-1



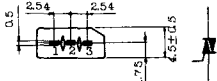
- 1. ゲート
- 2. T₂
- 3. T₁

TT-2



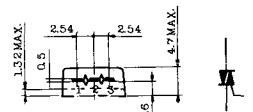
- 1. T₁
- 2. ゲート
- 3. T₂

TT-3



- 1. T₁
- 2. T₂
- 3. ゲート

TT-4



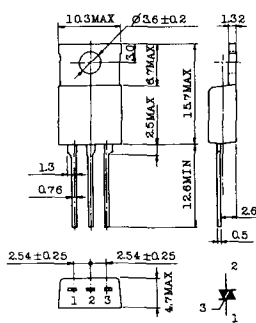
- 1. T₁
- 2. T₂
- 3. ゲート

TT-5



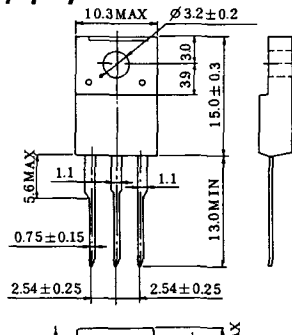
- 1. T₁
- 2. T₂
- 3. ゲート

TT-6



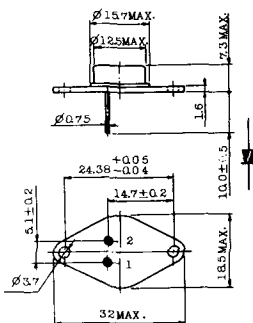
- 1. T₁
- 2. T₂ (放熱板)
- 3. ゲート

TT-7



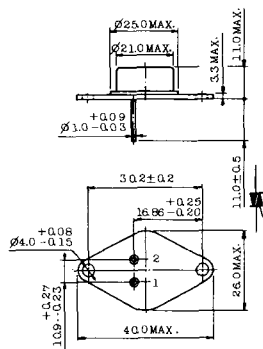
- 1. T₁
- 2. T₂
- 3. ゲート

TT-8



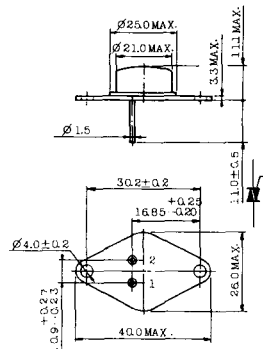
- 1. ゲート
- 2. T₁
- T₂ (ケース)

TT-9



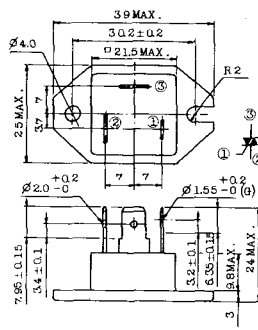
1. ゲート
2. T₁
3. T₂ (ケース)

TT-10



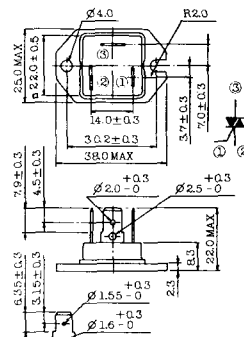
1. ゲート
2. T₁
3. T₂ (ケース)

TT-11



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

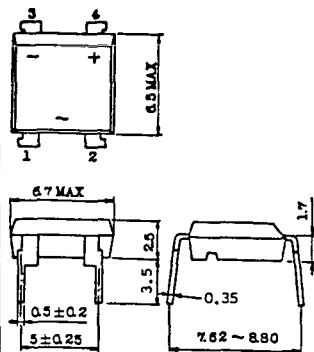
TT-12



ゲート端子詳細

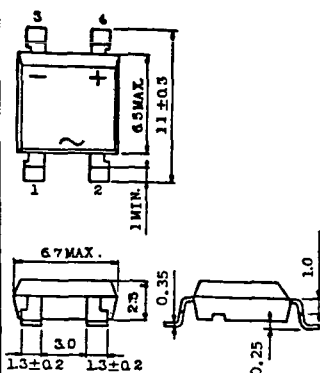
- ① ゲート (フーストン端子 # 187)
- ② T₁ (" # 250)
- ③ T₂ (" # 250)

TT-13



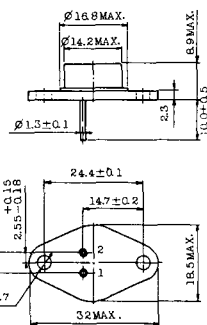
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-14



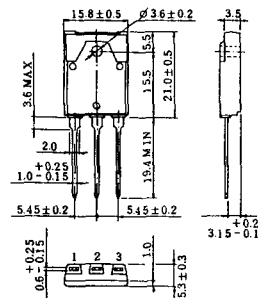
- 1, 2: T₂
- 3: GATE
- 4: T₁

TT-15 (13-14A1B)



1. ゲート
2. T₁
- T₂ (ケース)

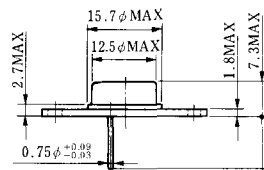
TT-16 (13-16A1A)



1. T₁
2. T₂
3. ゲート



TS-8

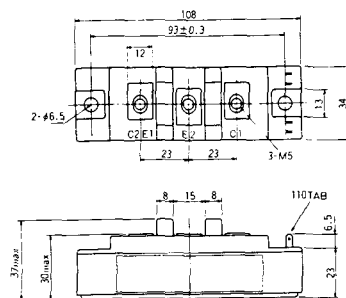


- 1. ベース
- 2. エミッタ
コレクタ
(ケース)

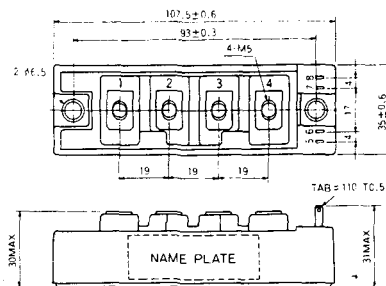
S-108B1A



S-108B1B



S-108B1C



S-108B2A



S-108B2B



2-22B1A



2-27A4A



2-33C1A



2-33D1A



2-33F1A



2-37A1A



2-68B2A



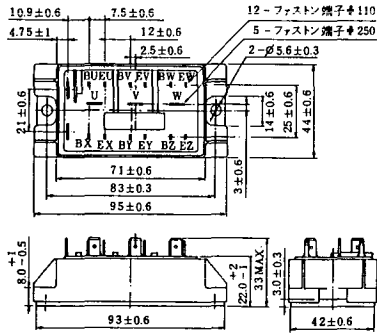
2-68C1A



2-68D2A



2-72A3A



2-80A1A



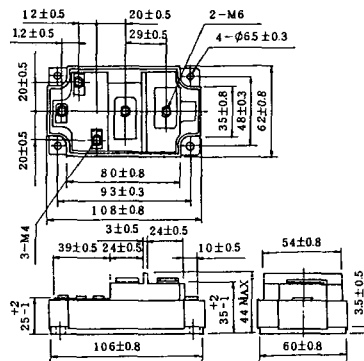
2-80B1A



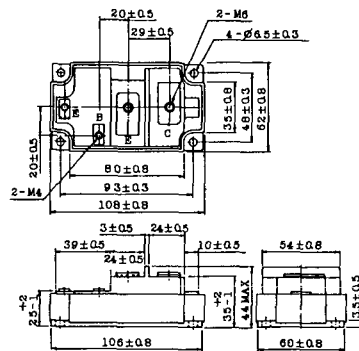
2-108B1A



2-109A3A



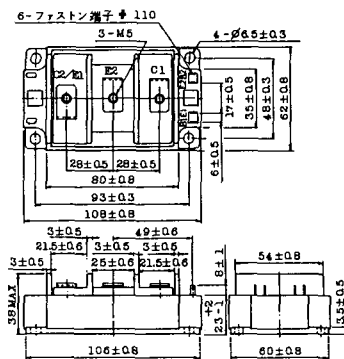
2-109A4A



2-109B3A



2-109B4A



BBT-II

BBTII
1D200A-020



BBT-III

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



BBT-III

BBTIII
ETN01-055
ET1257

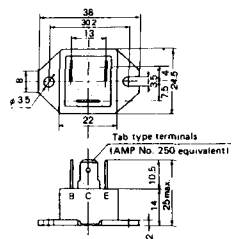


BBT-IV

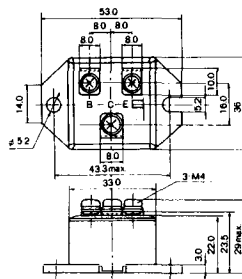
BBTIV
1D500A-030



M-101



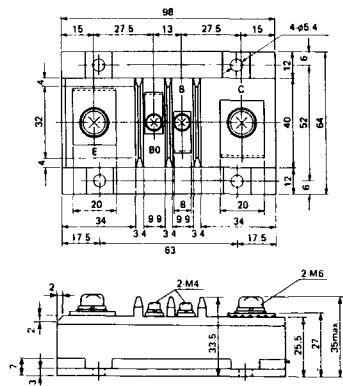
M-102



M-103



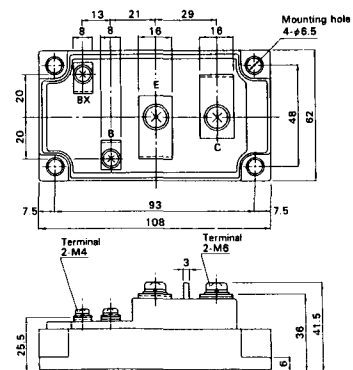
M-104



M-105



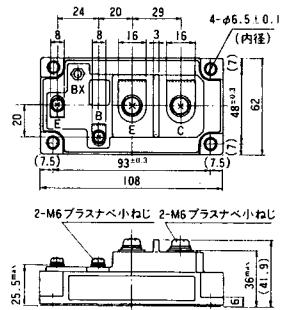
M-106



M-107



M-116



M-201



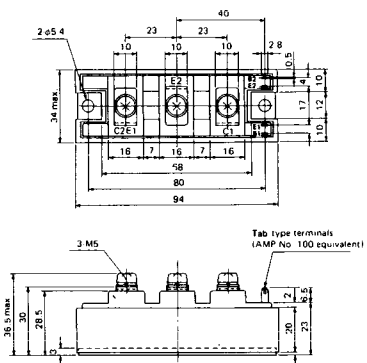
M-202



M-203



M-204



M-205



M-206



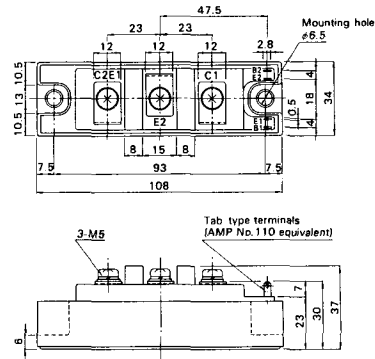
M-207



M-208



M-209



M-210



M-211



M-212



M-213

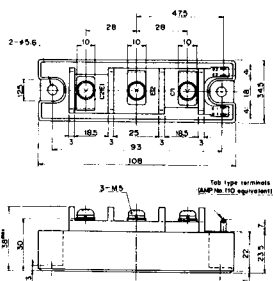


M-214

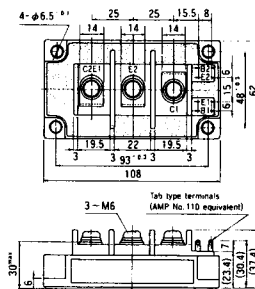
M-215



M-216



M-217



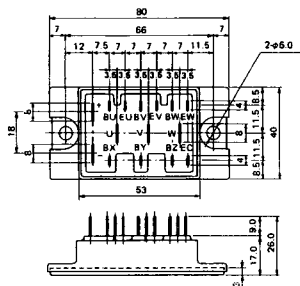
M-218



M-219



M-601



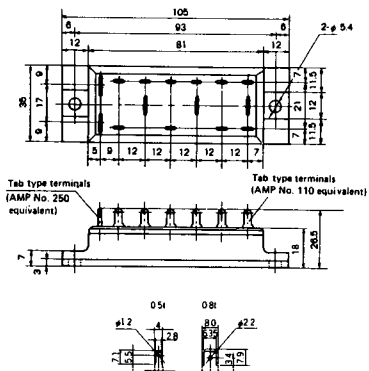
Tab type terminals
(AMP No. 110 equivalent)



Tab type terminals
(AMP No. 250 equivalent)



M-602



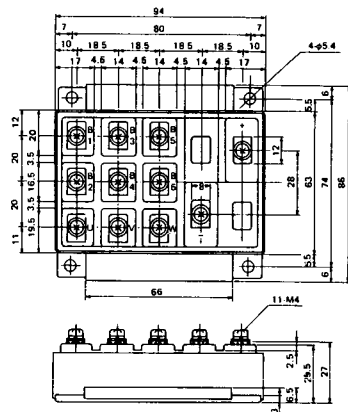
Tab type terminals
(AMP No. 250 equivalent)



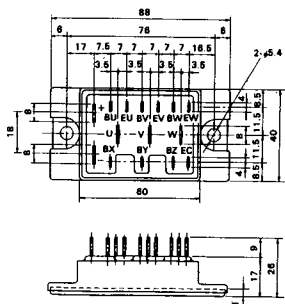
Tab type terminals
(AMP No. 110 equivalent)



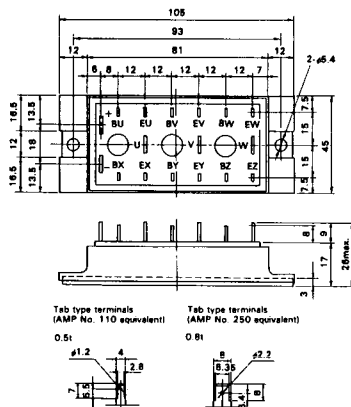
M-603



M-604



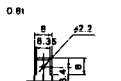
M-605



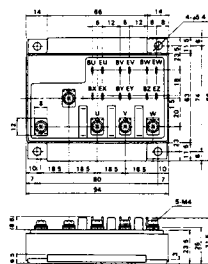
Tab type terminals
(AMP No. 110 equivalent)



Tab type terminals
(AMP No. 250 equivalent)



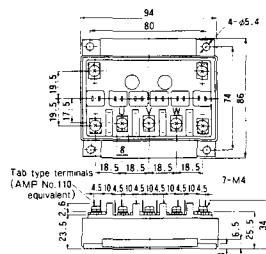
M-606



M-607



M-608



M-609



M-610



M-616



M-1A1A



M-2A1A



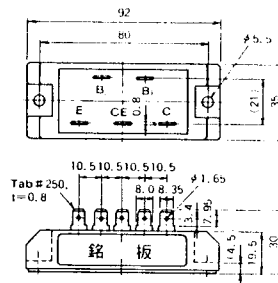
M-2B1A



M-2B2A



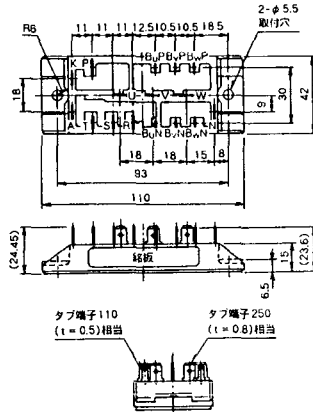
M-2C2A



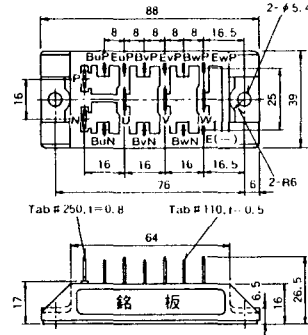
M-2D4A



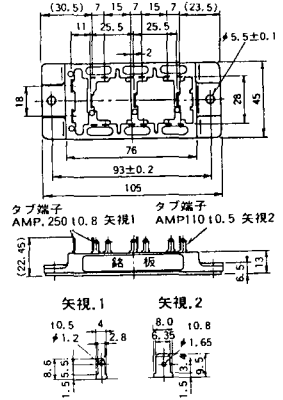
M-2E6A



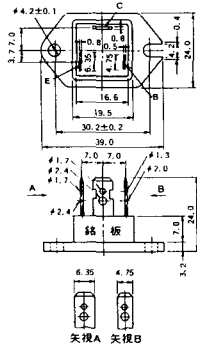
M-2F6A



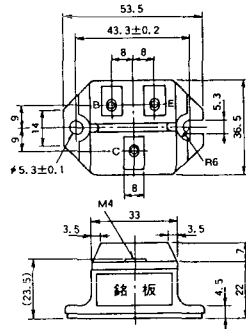
M-2G6A



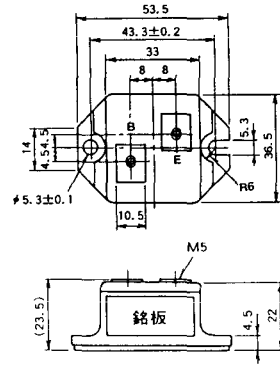
M-3A1A



M-3B1A



M-3B1B



M-3C1A



M-3D6A



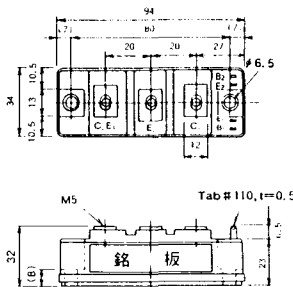
M-3E6A



M-4A1A



M-4A2A



M-4A1B



M-4A2B



M-4B2A



M-5A1A



M-5A1B



M-5A2A



M-5B2A



M-5C2A



M-5D2A



M-6A1A



M-7A1A



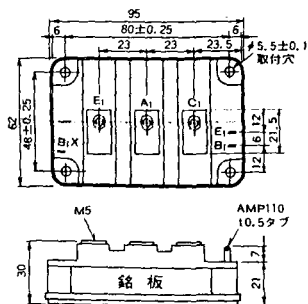
M-7B1A



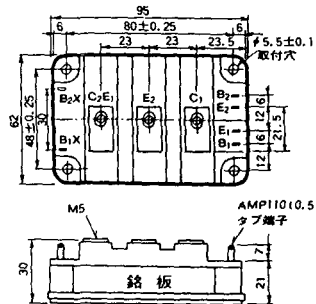
M-8A1A



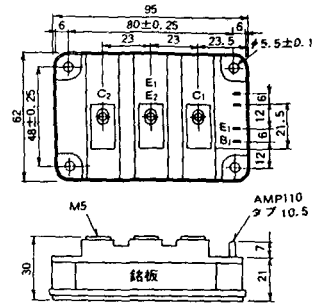
M-8A1B



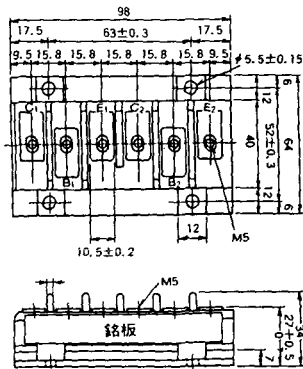
M-8A2A



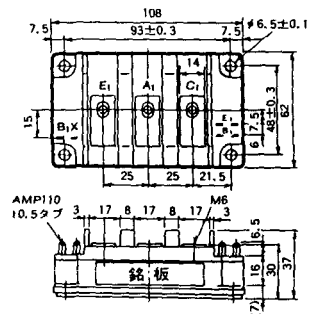
M-8A2B



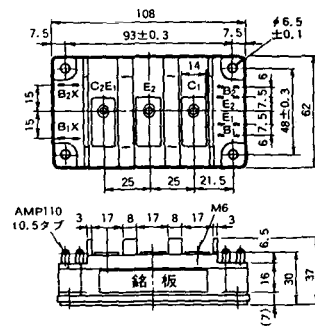
M-8B2A



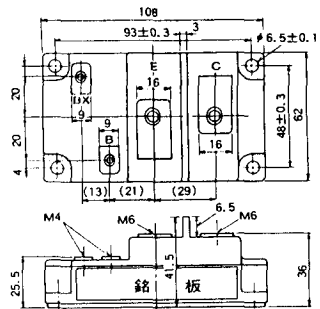
M-9A1A



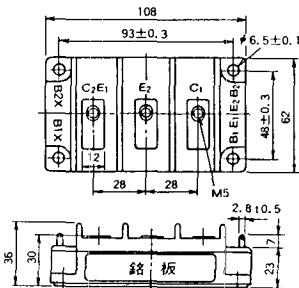
M-9A2A



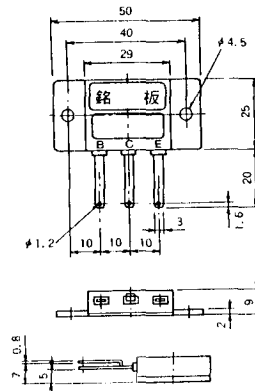
M-9B1A



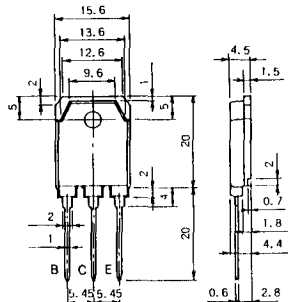
M-9C2A



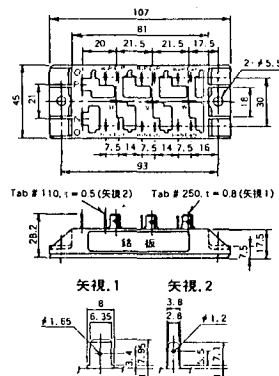
M-1A1B



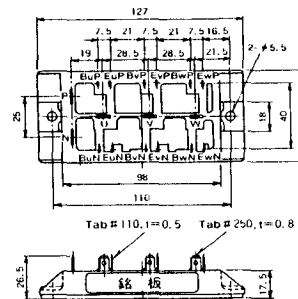
M-1A1C



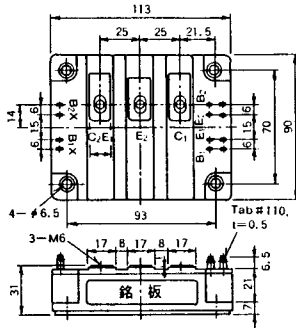
M-2E6B



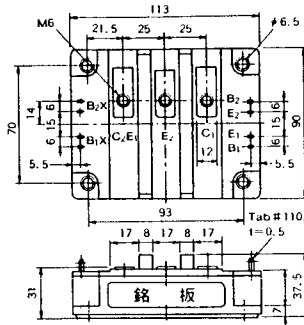
M-2E6C



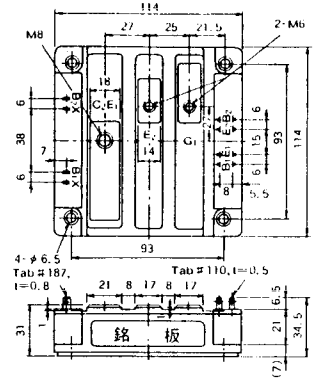
M-10A2A



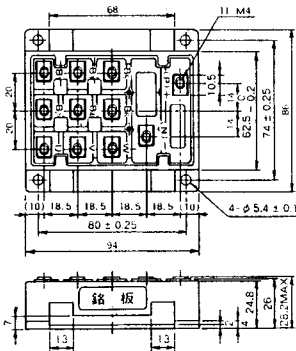
M-10A2B



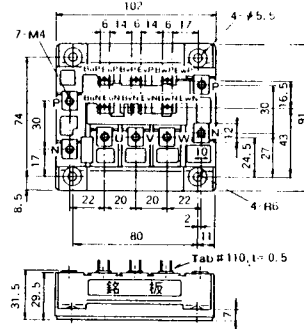
M-11A2A



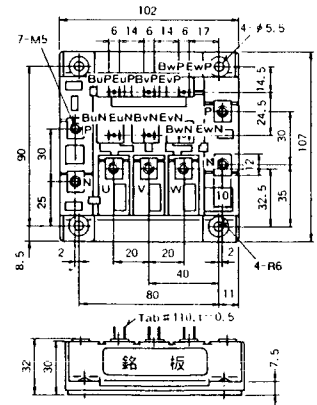
M-12A6A



M-12B6A



M-12B6B



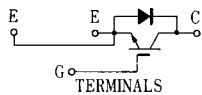
M-9D2B



M-10A2C



H-101



Weight :480g

H-201



Weight: 200g

H-202



Weight: 360g

LF-J



LF-K

