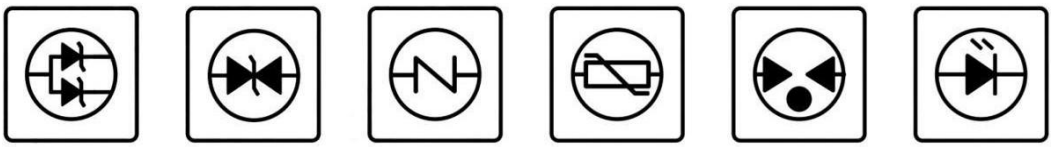
MSKSEMI 美森科
SEMICONDUCTOR



2P4M(SOT-89)

Product specification

2P4M(SOT-89)

Plastic-Encapsulate Thyristors

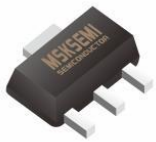
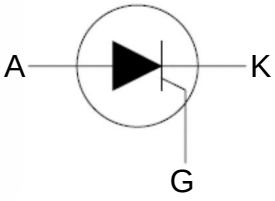
Features

- Operating and storage junction temperature range T_J，T_{stg} : -55℃ to +150℃

Application

- Electric blanket, Electronic jar, Various temperature control
- Electric sewing machine, Speed control of miniature type motor.
- Light display equipment, Lamp dimmer such as a display for entertainment.
- Automatic gas lighter, Battery charger.
- Solid state static switches etc

Reference News

SOT-89-3L	Schematic diagram	Marking
		2P4M ****

Maximum Ratings(Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current	2	A
V_{DRM}	Repetitive peak off-state voltage	600	V
T_j	Junction Temperature	-40~+125	℃
T_{stg}	Storage Temperature	-40~+150	℃

Electrical Characteristics(Ta=25℃unless otherwise noted)

Symbol	Parameter	Test conditions	Min.	Max.	Unit
V_{TM}	On state voltage	I_{TM}=2A	-	1.7	V
V_{GT}	Gate trigger voltage	V_{AK}=12V	-	0.8	V
V_{DRM} / V_{RRM}	Repetitive peak off-state voltage	I_{DRM}= 10μA	600	-	V
I_{RRM} / I_{DRM}	Peak forward or reverse blocking Current	V_{DRM} or V_{RRM}	10	-	μA
I_H	Holding current	I_T=50mA	-	5	mA
I_{GT}	Gate trigger current	V_{AK}=12V	10	200	μA

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Typical Operating Characteristics

Fig. 1 I_{TM}-V_{TM} CHARACTERISTICS

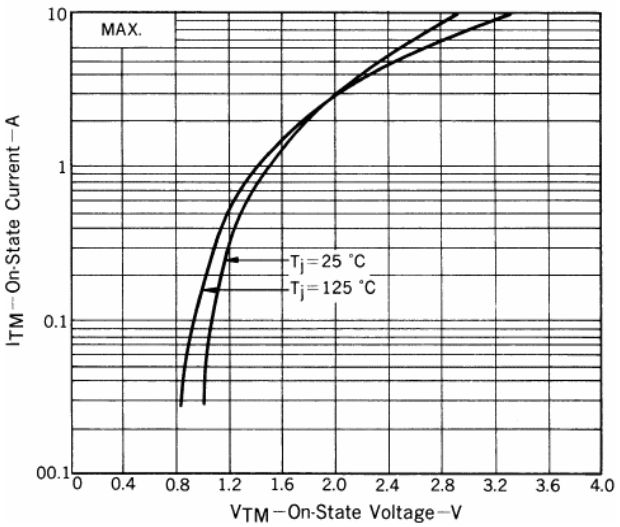


Fig. 2 $P_{T(AV)}$-$I_{T(AV)}$ CHARACTERISTICS

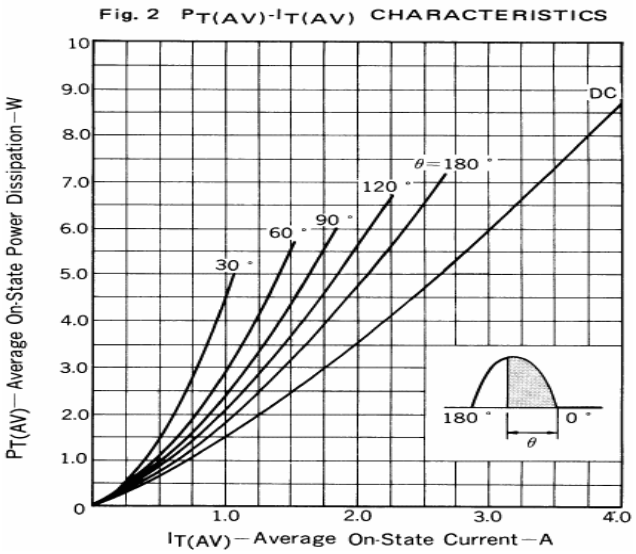


Fig. 3 $I_{T(AV)}$-T_C RATINGS

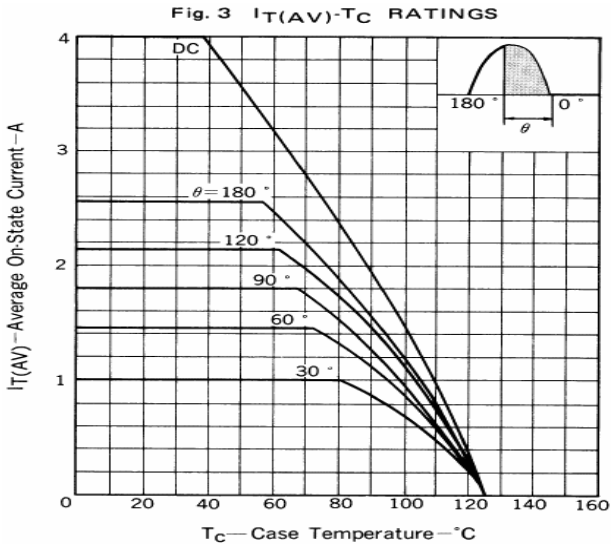


Fig. 4 T_a-$I_{T(AV)}$ RATINGS

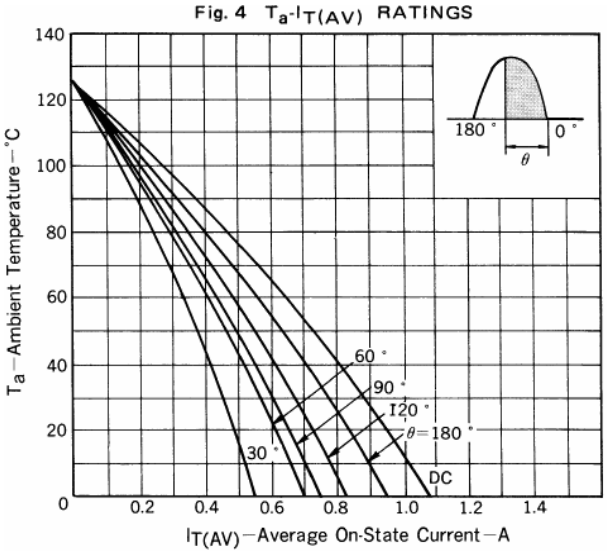


Fig. 5 I_{GT}-T_a TYPICAL DISTRIBUTION

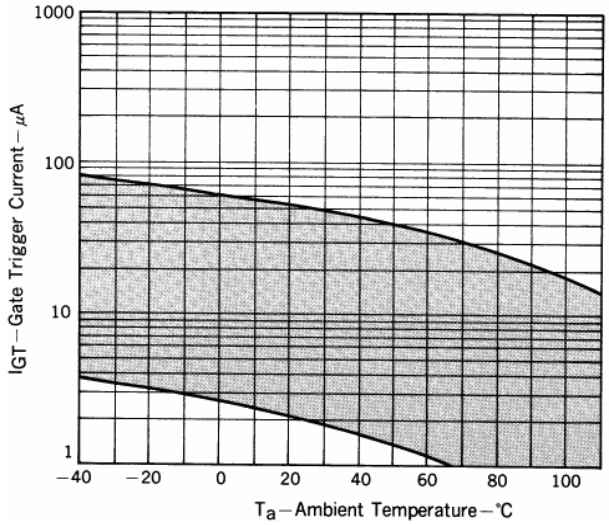
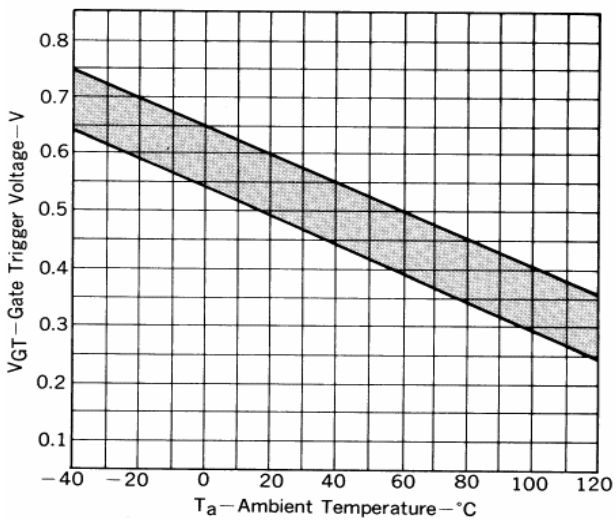


Fig. 6 V_{GT}-T_a TYPICAL DISTRIBUTION



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Fig. 7 I_{GT}-τ_G TYPICAL DISTRIBUTION

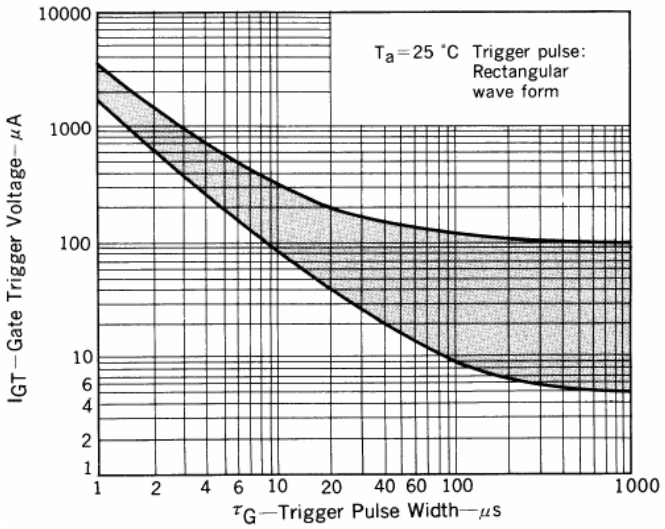


Fig. 8 V_{GT}-τ_G TYPICAL DISTRIBUTION

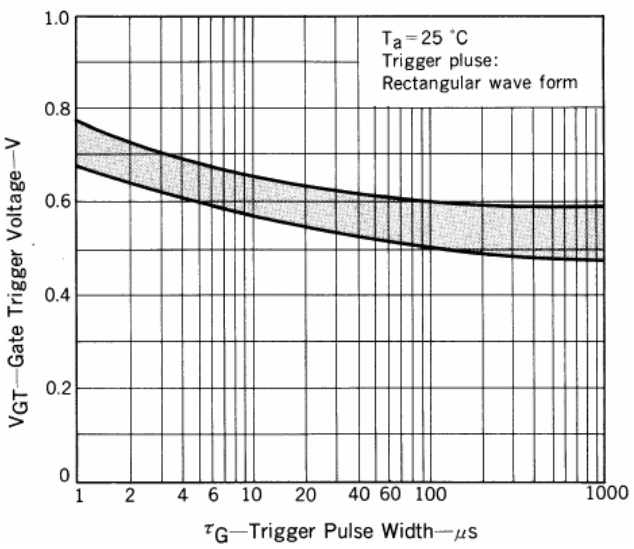


Fig. 9 I_H-T_a TYPICAL DISTRIBUTION

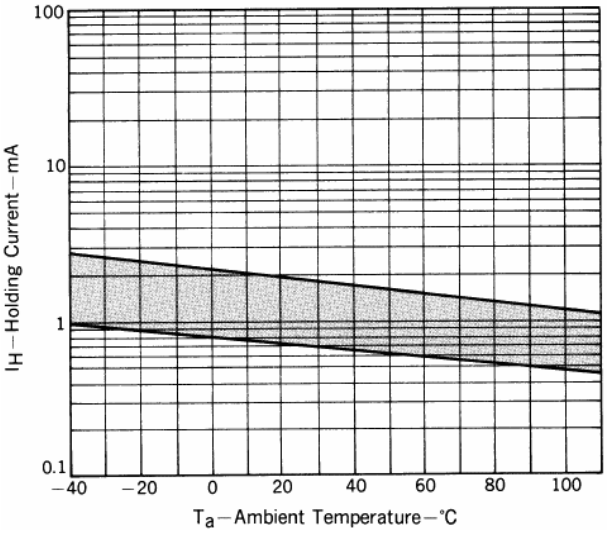


Fig. 10 I_{TSM} RATINGS

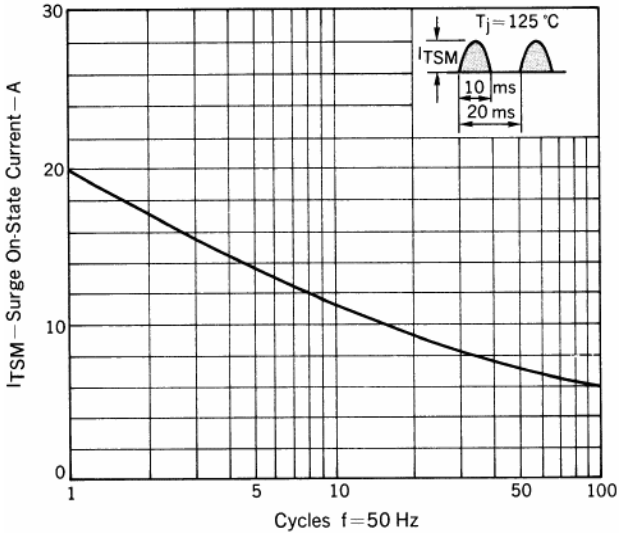
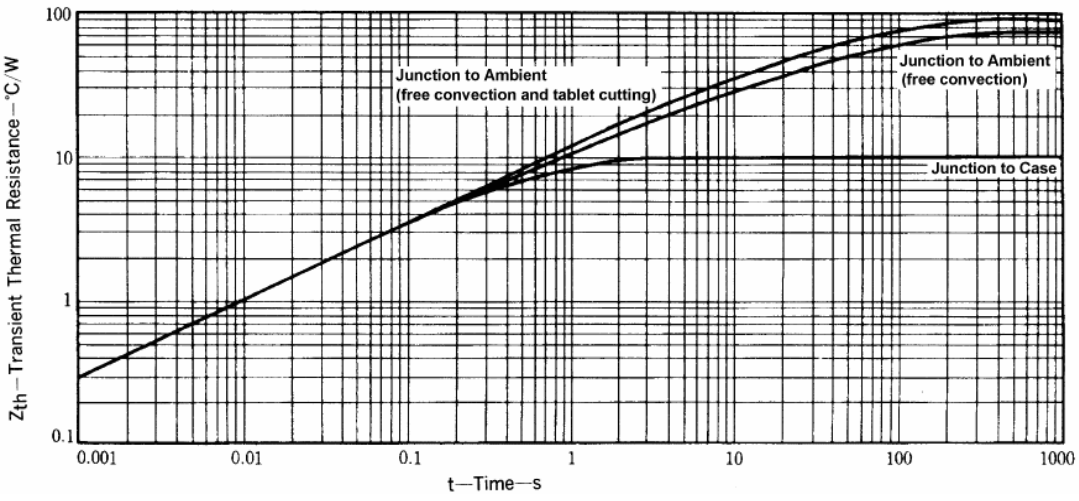
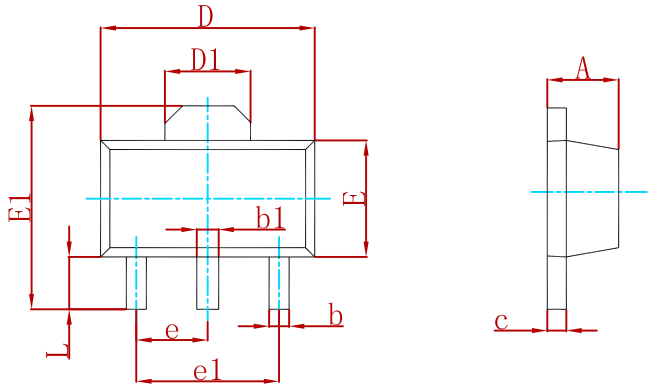


Fig. 11 Z_{th} CHARACTERISTICS



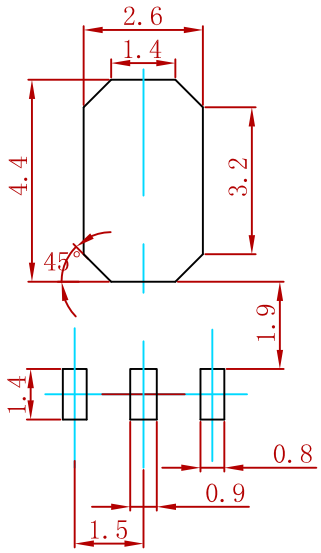
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PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

Ordering Information (Example)

Type	Package	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
2P4M(SOT-89)	SOT-89-3L	1,000	4,000	24,000	7"reel

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