0.47A All Diffused Type SCR Power Mini Mold

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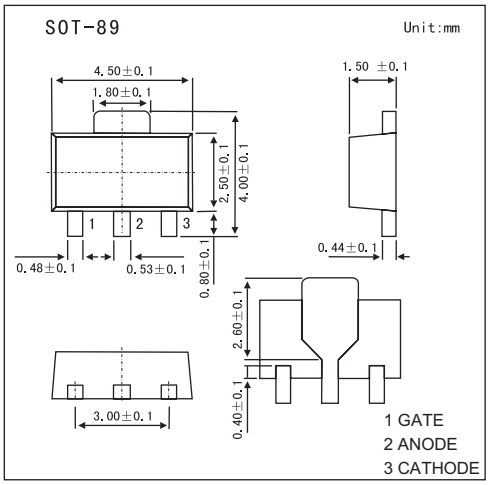

Features

- High Anode to Cathode Voltage:V_{DRM}:V_{RRM}=200V

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V_{RSM}	500	V
Non- Repetitive Peak -off Voltage	V_{DSM}	500	V
Repetitive Reverse Voltage	V_{RRM}	400	V
Repetitive Peak-off Voltage	V_{DRM}	400	V
Average On-State Current *1	$I_{T(AV)}$	0.3	A
RMS On-State Current	$I_{T(RSM)}$	0.47	A
Surge On-stage Current	I_{TSM}	6	A
Fusing Current 1ms≤t≤10ms	fiT^2dt	0.15	A^2s
Gate Power Dissipation *2	P_{GM}	0.1	W
Gate Power Dissipation	$P_{G(AV)}$	0.01	W
Gate Forward Current *2	I_{FGM}	0.1	A
Gate Reverse Voltage	V_{RGM}	6	V
Junction Temperature	T_J	-55 to +125	℃
Storage Temperature	T_{stg}	-55 to +150	℃

*1 T_A=77℃, Single Phase half wave

*2 f≥50Hz, Duty≤10%

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min		Max	Unit
Repetitive Peak Reverse Current	I_{RRM}	V_{RM}=V_{RRM} T_J=25℃			10	μA
		V_{RM}=V_{RRM} T_J=125℃			100	μA
Repetitive Peak Off-state Current	I_{DRM}	V_{DM}=V_{DRM},T_J=25℃			10	μA
		V_{RM}=V_{RRM} T_J=125℃			100	μA
On-state Voltage	V_{TM}	I_{TM}=1A			1.6	V
Gate-Trigger Current	I_{GT}	V_{DM}=6V,R_L=100Ω			200	μA
Gate-Trigger Current	V_{GT}	V_{DM}=6V,R_L=100Ω			0.5	V
Gate Non-Trigge Voltage	V_{GD}	V_{DM}=1/2V_{DRM},T_J=125℃	0.1			V
Critical Rate-of-Rise of Off-stage Voltage	dv/dt	V_{DM}=2/3V_{DRM},T_J=125℃		40		V/μs
Holding Current	I_H	V_D=24V,I_{TM}=1A			5	mA
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient			65	℃/W

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

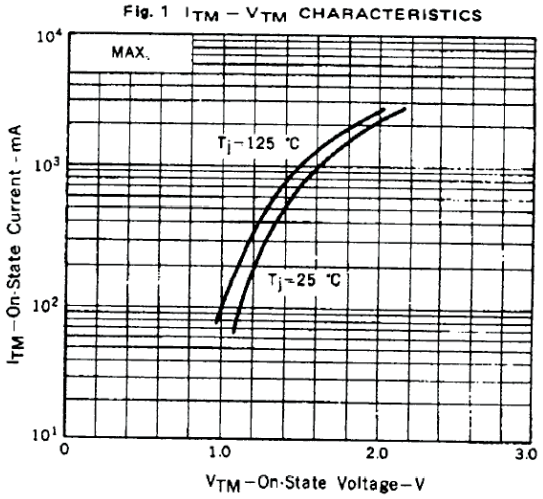

Fig. 2 I_{TSM} RATING

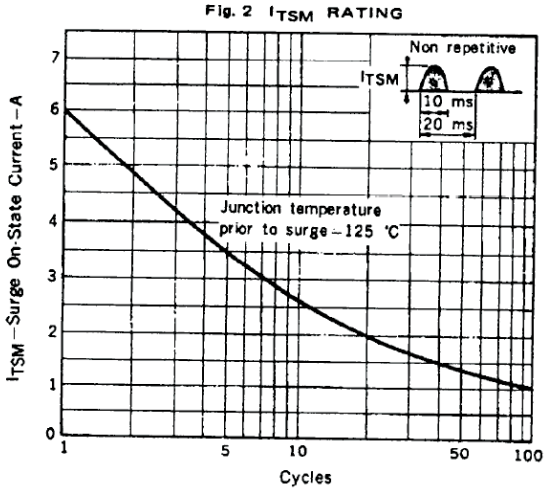

Fig. 3 GATE POWER RATINGS

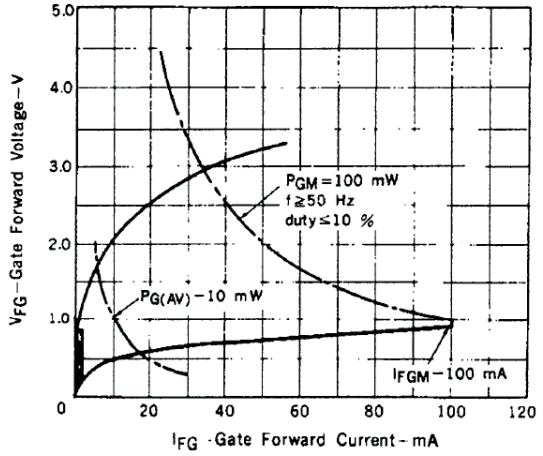

Fig. 4 $I_{GS} - V_{GT}$ DISTRIBUTION

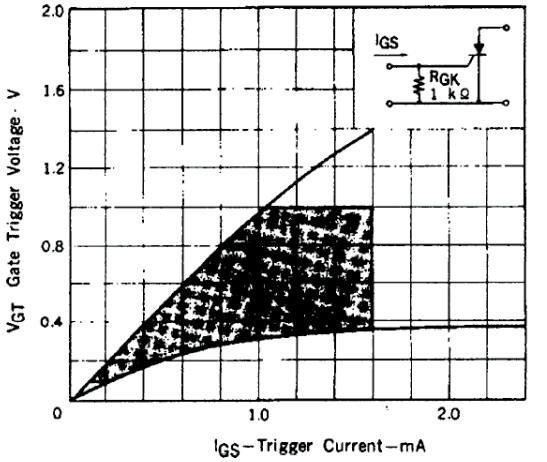

Fig. 5 $I_{GT} - T_a$ TYPICAL DISTRIBUTION

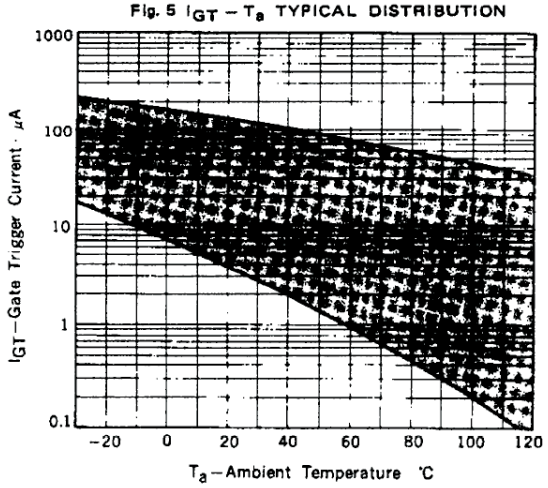

Fig. 6 $V_{GT} - T_a$ TYPICAL DISTRIBUTION

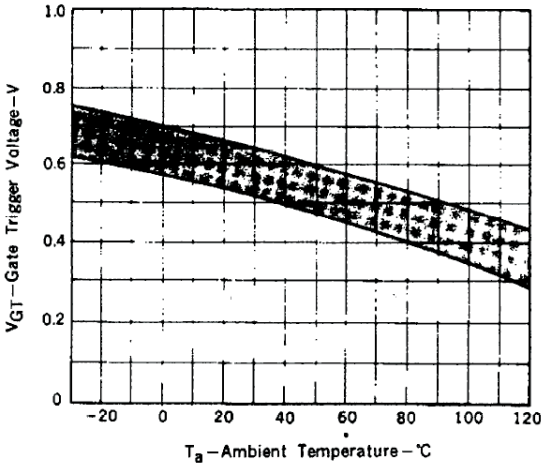

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Fig. 7 $I_{GS}-\tau_G$ TYPICAL DISTRIBUTION

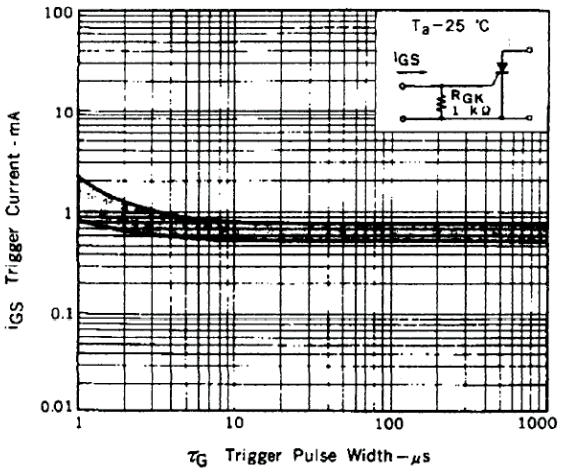

Fig. 8 $V_{GT}-\tau_G$ TYPICAL DISTRIBUTION

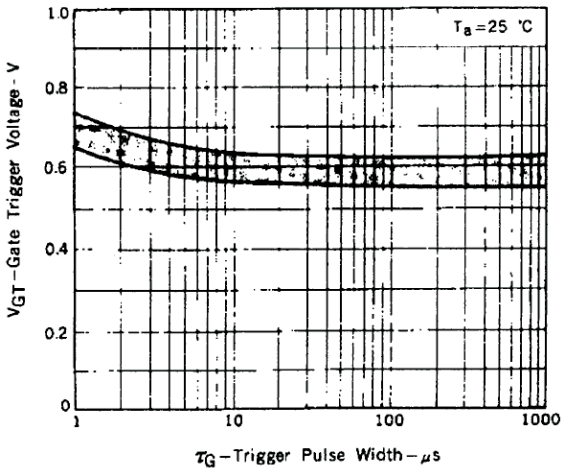

Fig. 9 $P_{T(AV)}-I_{T(AV)}$ CHARACTERISTICS

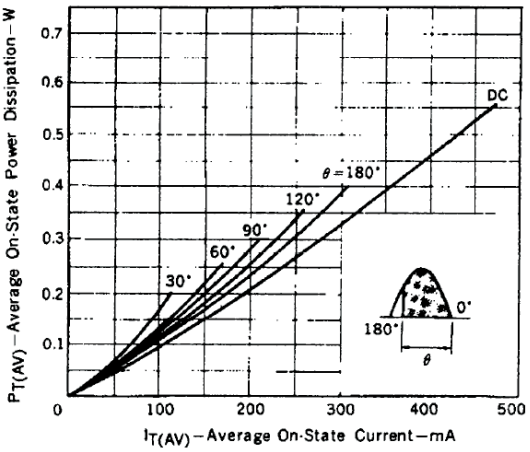

Fig. 10 $I_{T(AV)}-T_a$ RATINGS

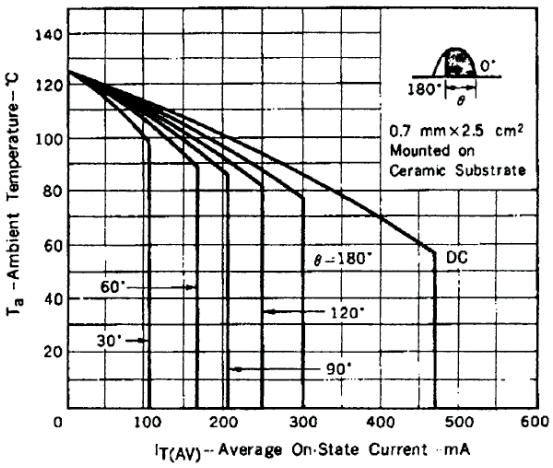

Fig. 11 I_H-T_a TYPICAL DISTRIBUTION