

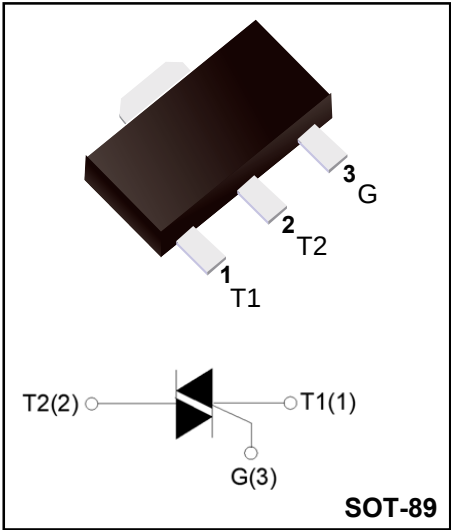
0.6A 4Quadrants TRIACs

Product Summary

Symbol	Value	Unit
$I_{T(RMS)}$	0.6	A
$V_{DRM} V_{RRM}$	600	V
V_{TM}	1.7	V

Reverse Blocking Thyristors

- ◆ Sensitive Gate
- ◆ Silicon Controlled Rectifiers General Description



Marking Code	
MAC97A6SI	97A6

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value		Unit
Repetitive peak off-state voltage	V_{DRM}	600		
Repetitive peak reverse voltage	V_{RRM}	600		V
RMS on-state current	$I_{T(RMS)}$	0.6		A
Non repetitive surge peak on-state current (full cycle, F=50Hz)	I_{TSM}	8		A
I^2t value for fusing ($t_p=10\text{ms}$)	I^2t	0.3		A^2s
Critical rate of rise of on-state current ($I_G=2\times I_{GT}$)	di/dt	I - II - III	50	A/ μs
		IV	10	
Peak gate current	I_{GM}	1		A
Average gate power dissipation	$P_{G(AV)}$	0.1		W
Junction Temperature	T_J	$-40 \sim +125$		$^{\circ}\text{C}$
Storage Temperature	T_{STG}	$-40 \sim +150$		$^{\circ}\text{C}$

Electrical Characteristics($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Test Condition		Value	Unit
Gate trigger current	I_{GT}	$V_D=12\text{V}$, $I_T=0.1\text{A}$ $T_j=25^{\circ}\text{C}$	I - II - III	5	mA
			IV	10	
Gate trigger voltage	V_{GT}		I - II - III - IV	1.2	V
Non-triggering gate voltage	V_{GD}	$V_D=V_{DRM}$ $T_j=125^{\circ}\text{C}$		0.2	V
Latching current	I_L	$V_D=12\text{V}$, $I_T=0.06\text{A}$ $T_j=25^{\circ}\text{C}$	I - II - III	10	mA
			II	15	
Holding current	I_H		I - II - III - IV	10	mA
Critical-rate of rise of commutation voltage	dV/dt	$V_D=2/3 V_{DRM}$ Gate Open $T_j=125^{\circ}\text{C}$		30	V/ μs

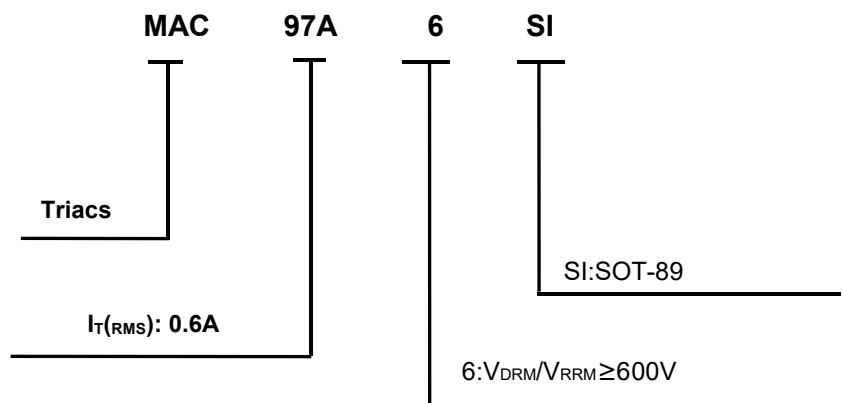
STATIC CHARACTERISTICS

On-state Voltage	V_{TM}	$I_{TM}=0.85\text{A}$ $t_p=380\mu\text{s}$		1.7	V
Repetitive Peak Off-State Current	I_{DRM}	$V_D=V_{DRM}=V_{RRM}$	$T_j=25^{\circ}\text{C}$	20	μA
Repetitive Peak Reverse Current	I_{RRM}		$T_j=125^{\circ}\text{C}$	100	μA

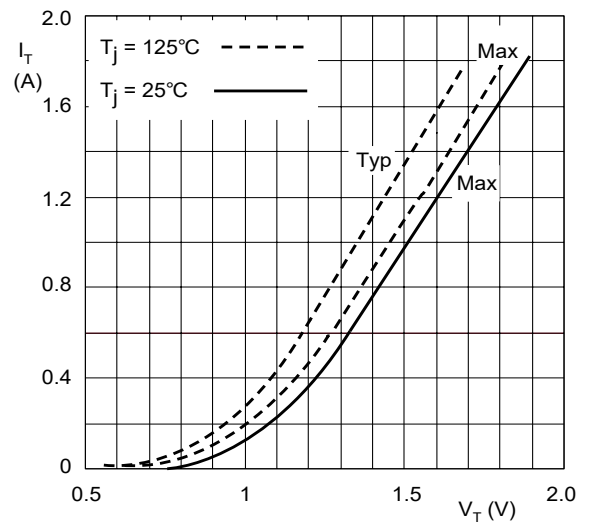
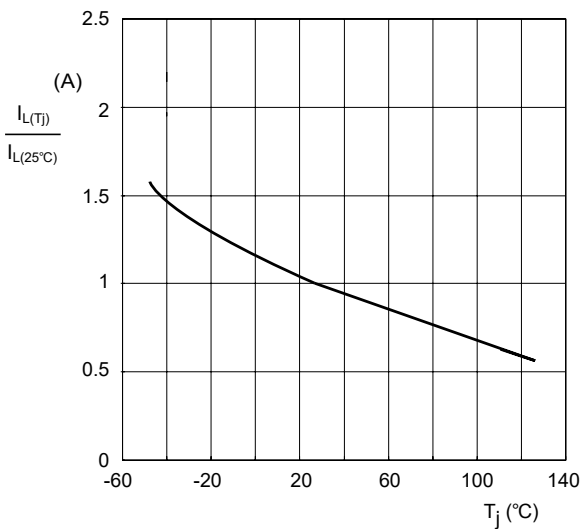
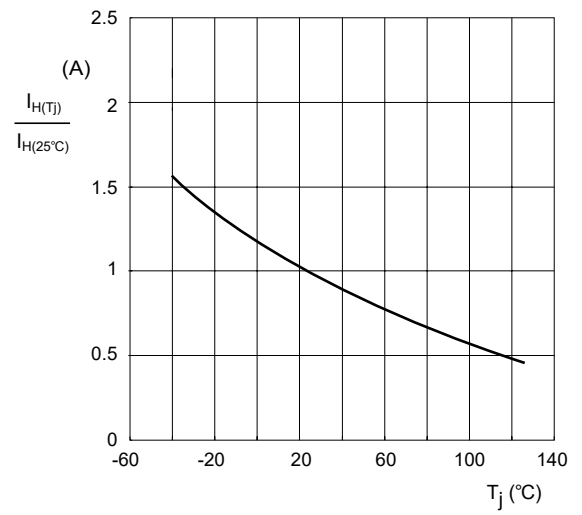
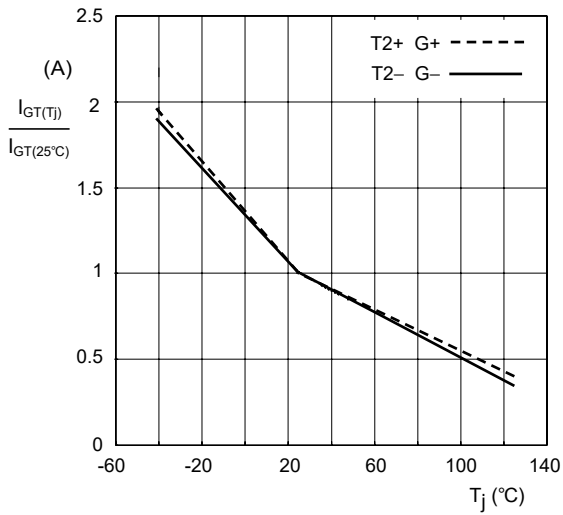
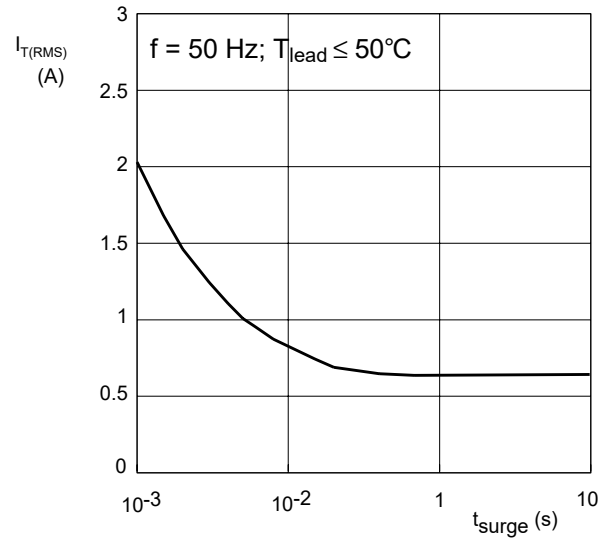
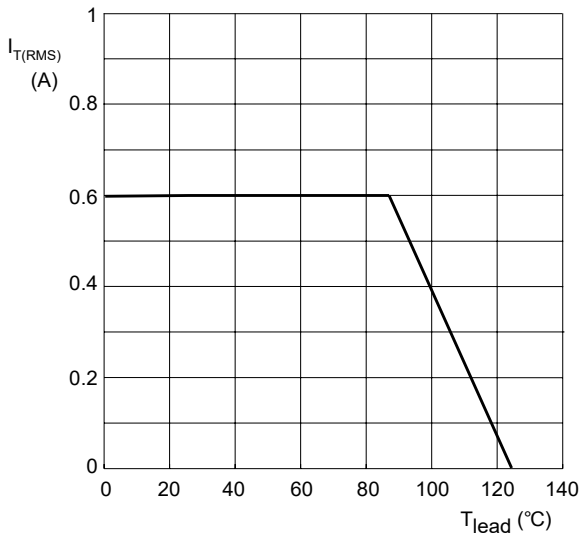
THERMAL RESISTANCES

lhermal resistance	$R_{th(j-c)}$	Junction to case(AC)	TYP.	60	$^{\circ}\text{C/W}$
	$R_{th(j-a)}$	Junction to ambient	TYP.	150	$^{\circ}\text{C/W}$

Ordering Information



Typical Characteristics



Ordering information

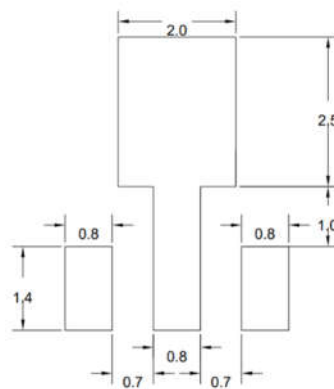
Package	Packing Description	Base Quantity	Packing Quantity
SOT-89	Tape/Reel, 7" reel	1000pcs/Reel	6000PCS/Box 30000PCS/Carton

Package Dimensions

SOT-89

Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	1.40	1.60	0.055	0.063
b	0.32	0.52	0.013	0.020
b1	0.38	0.58	0.015	0.023
c	0.35	0.45	0.014	0.018
D	4.40	4.60	0.173	0.181
D1	1.45	1.65	0.057	0.065
D2	1.70	1.80	0.067	0.071
E	2.30	2.60	0.091	0.102
E1	3.95	4.25	0.156	0.167
E2	1.80	2.00	0.071	0.079
e	1.40	1.60	0.055	0.063
e1	2.80	3.20	0.110	0.126
L	0.90	1.20	0.035	0.047

The recommended mounting pad size



UNIT:MM

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