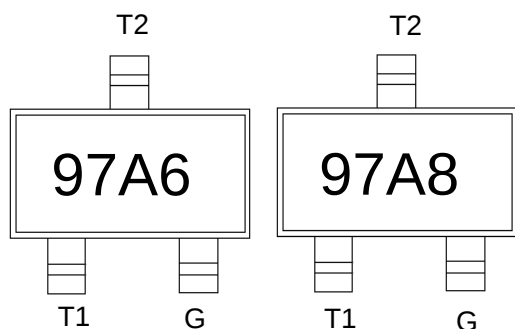


Features

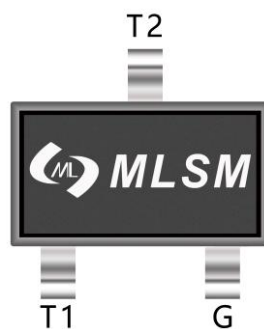
- Blocking voltage to 400 V (MAC97A6)
- RMS on-state current to 0.6 A
- General purpose bidirectional switching

Application

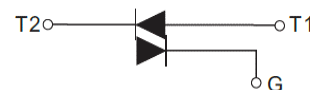
- General purpose bidirectional switching
- Phase control applications
- Solid state relays



Marking and pin assignment



SOT-23-3L top view



Equivalent Circuit



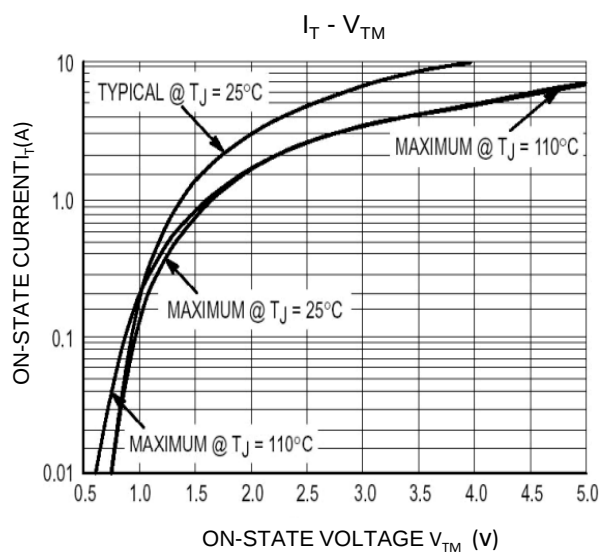
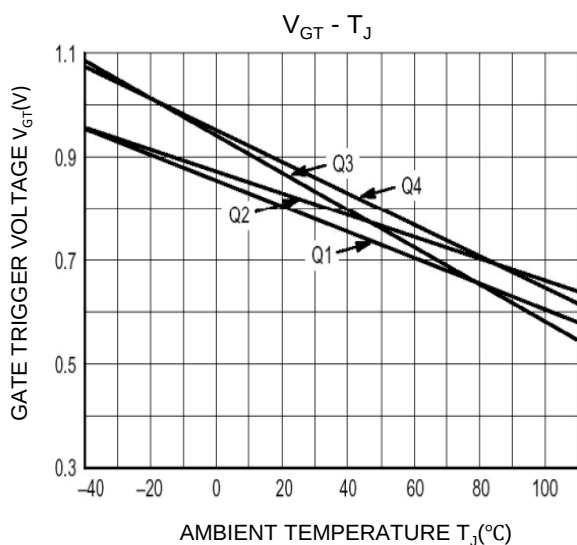
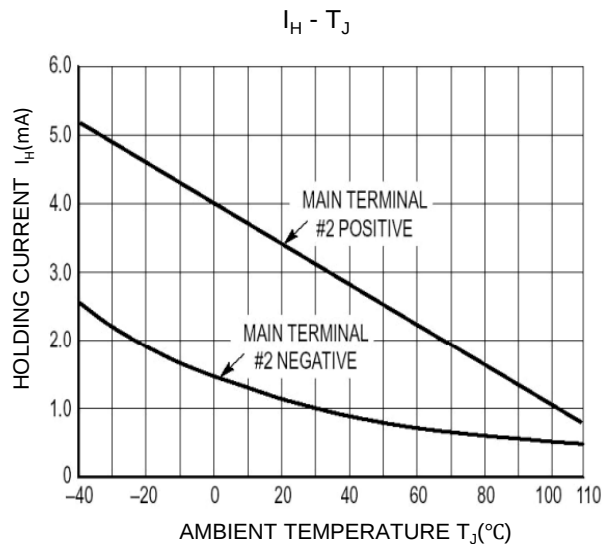
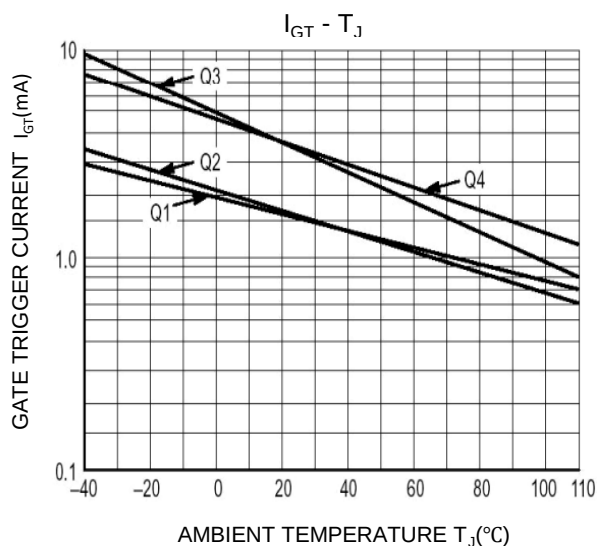
Maximum Ratings(Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current	0.6	A
V_{DRM}	Repetitive peak off-state voltage	MAC97A6	400
		MAC97A8	600
T_j	Junction Temperature	-40~+125	°C
T_{stg}	Storage Temperature	-40~+150	°C

Electrical Characteristics(Ta=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Max	Unit
V_{DRM}, V_{RRM}	Rated repetitive peak off-state/reverse voltage	MAC97A6	400	--	V
		MAC97A8	600	--	V
I_{DRM}, I_{RRM}	Rated repetitive peak off-state current	$V_D = V_{DRM}$	--	10	μA
V_{TM}	On-state voltage	$I_T = 1A, I_G = 50mA$	--	1.9	V
I_{GT}	Gate trigger current	I T2(+),G(+)	--	5	mA
		II T2(+),G(-)	--	5	mA
		III T2(-),G(-)	--	5	mA
		IV T2(-),G(+)	--	-	mA
V_{GT}	Gate Trigger Voltage	I T2(+),G(+)	--	1.5	V
		II T2(+),G(-)	--	1.5	V
		III T2(-),G(-)	--	1.5	V
		IV T2(-),G(+)	--	--	V
I_H	Holding Current	$I_T = 600mA, I_G = 20mA$	--	10	mA

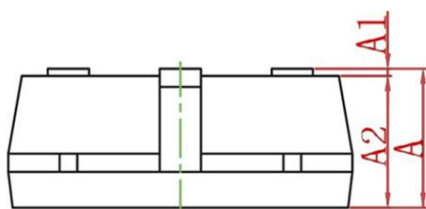
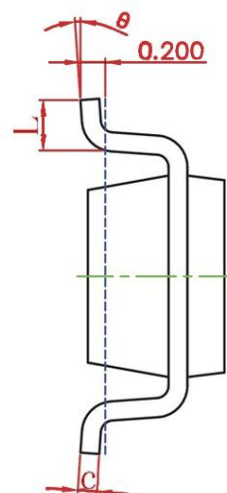
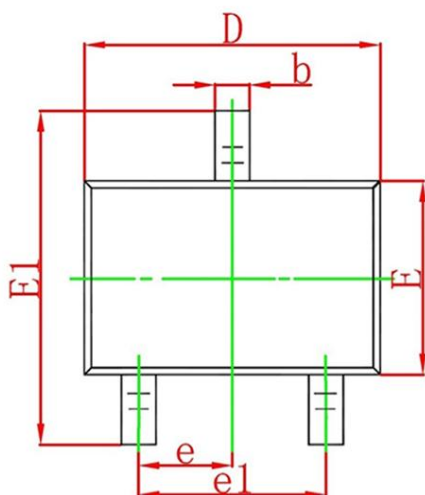
Typical Operating Characteristics



Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
MAC97A6	SOT-23-3L	97A6	3,000	45,000	180,000	7"reel
MAC97A8	SOT-23-3L	97A8	3,000	45,000	180,000	7"reel

SOT-23-3L Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.042	0.050
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.042	0.046
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.112	0.120
E	1.500	1.700	0.060	0.068
E1	2.650	2.950	0.106	0.118
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°