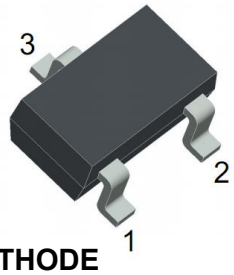
Silicon Controlled Rectifiers

Equivalent Circuit:

SOT- 23



1.KATHODE
2.GATE
3.ANODE

These devices are intened to be interfaced directly to microcontrollers, logic integrated circuits and other low power gate trigger circuits.

Weight : 0.22 gram

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

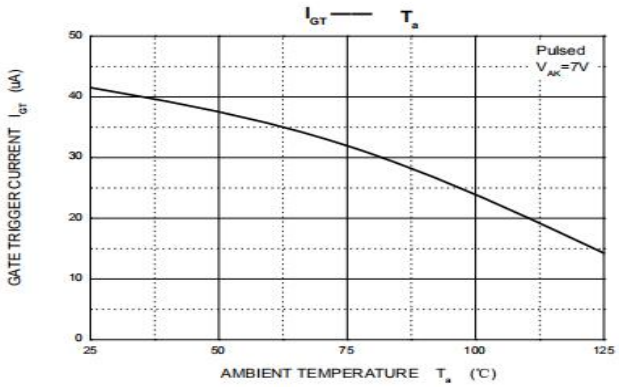
Rating	Symbol	MCR100-6	MCR100-8	Unit
Repetitive Peak Off-stage Voltage	VDRM	400	600	V
Collector-Base Voltage	ITRMS	0.8		A
Gate Trigger Current	IGT(Q1)	200		μA
Junction Temperature Range	TJ	+150		℃
Storage Temperature Range	TStg	-55 to +150		℃

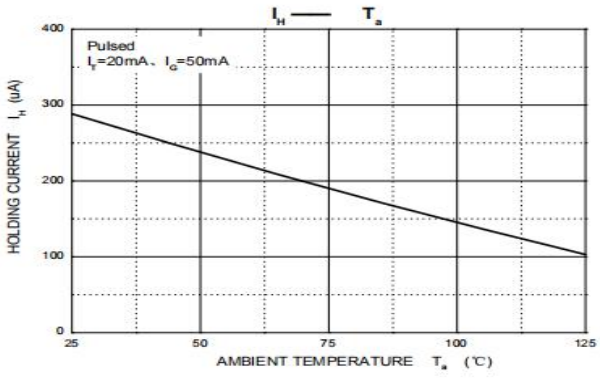
ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specifie

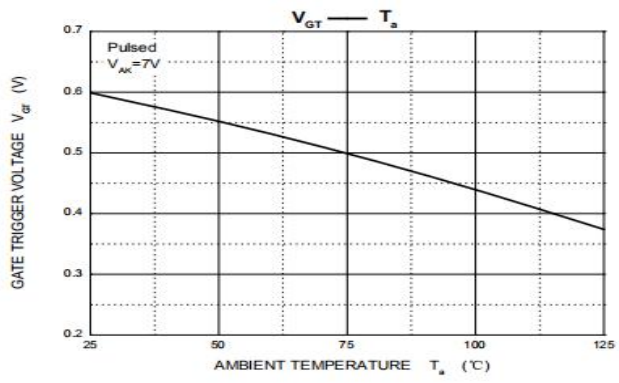
Parameter	Symbol		Test Condition	Min	Max	Unit
On state voltage	VTM *		ITM=1A			V
Gate trigger voltage	VGT		VAK=7V			V
Peak Repetitive forward and reverse blocking voltage MCR100-6 MCR100-8	VDRM AND VRRM		IDRM=10μA	 400 600		V
Peak forward or reverse blocking Current	IDRM IRRM		VAK=Rated VDRM or VRRM		10	μA
Holding current	IH		IHL=20mA VAK=7V		5	mA
Gate trigger current	IGT	A2	VAK=7V	5	15	μA
		A1		15	30	μA
		A		30	80	μA
		B		80	200	μA

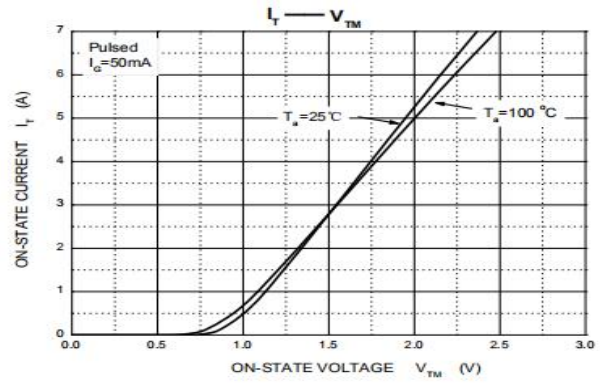
*** Forward current applied for 1 ms maximum duration，duty cycle≤1%。**

TYPICAL ELEC TRICAL AND THERMAL CHARACTERISTICS

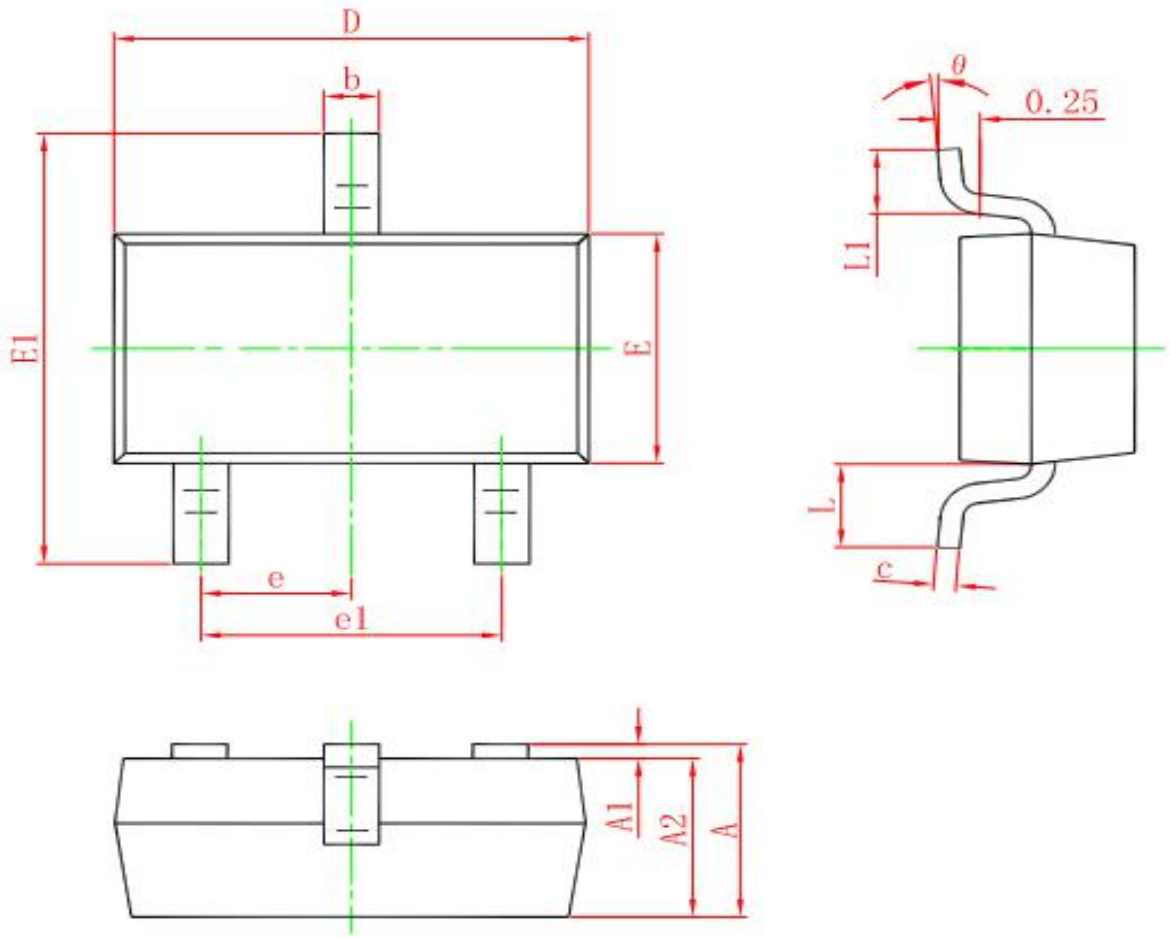








SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°