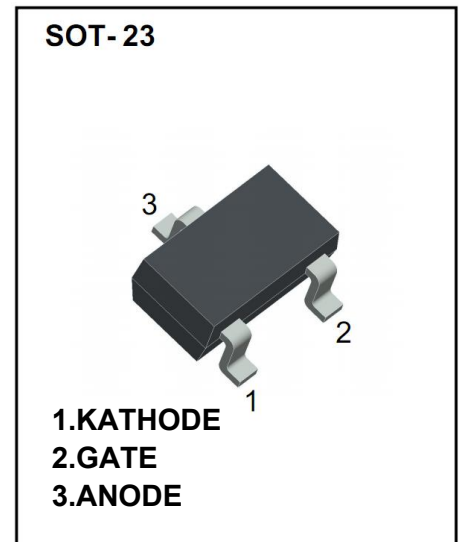


## Silicon Controlled Rectifiers

Equivalent Circuit:



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

Weight : 0.22 gram

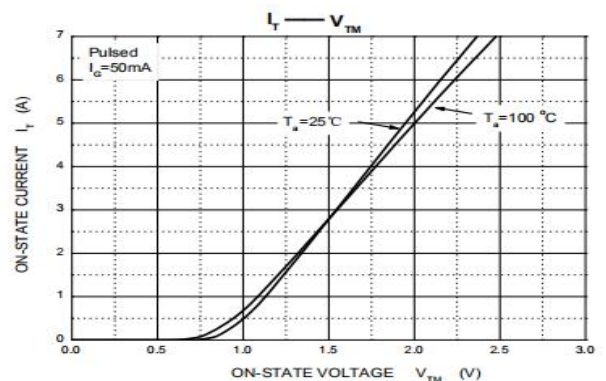
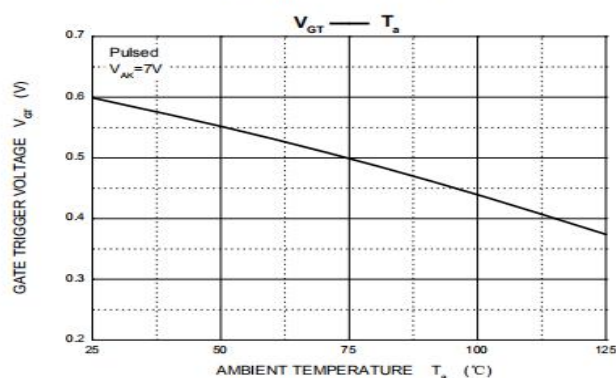
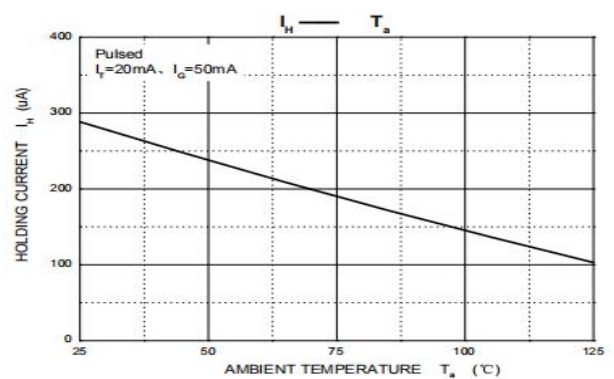
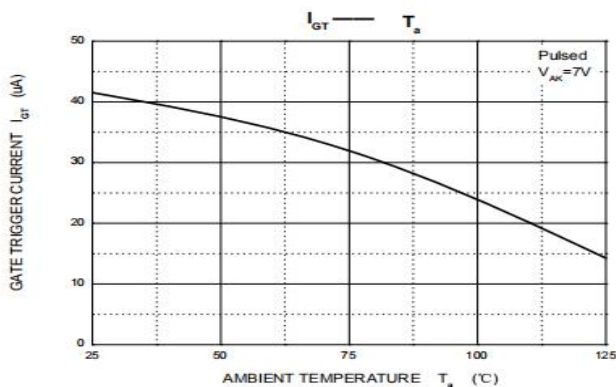
### MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

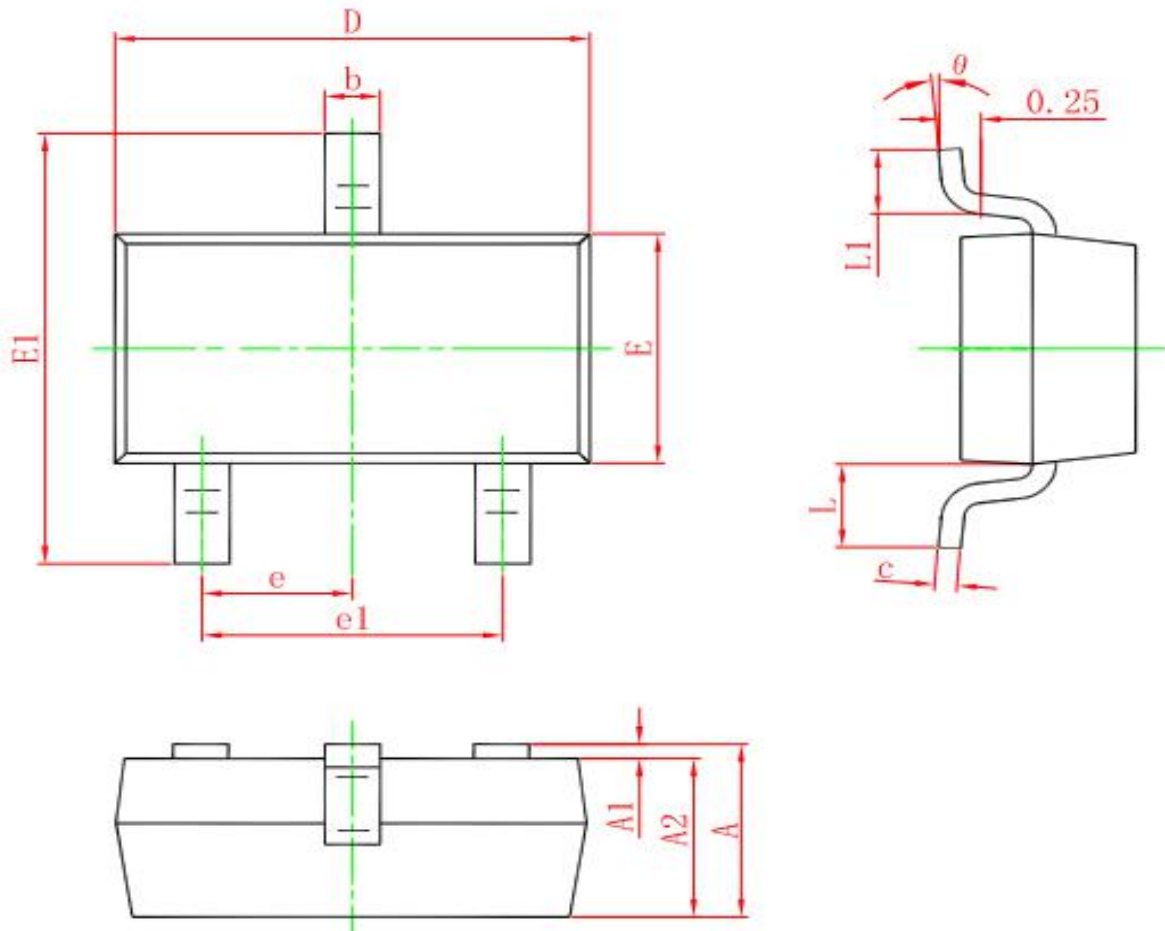
Rating	Symbol	MCR100-6	MCR100-8	Unit
Repetitive Peak Off-stage Voltage	VDRM	400	600	V
Collector-Base Voltage	ITRMS	0.8		A
Gate Trigger Current	IGT(Q1)	200		μA
Junction Temperature Range	TJ	+150		°C
Storage Temperature Range	TStg	-55 to +150		°C

**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test Condition	Min	Max	Unit	
On state voltage	V <sub>TM</sub> *	I <sub>TM</sub> =1A			V	
Gate trigger voltage	V <sub>GT</sub>	V <sub>AK</sub> =7V			V	
Peak Repetitive forward and reverse blocking voltage MCR100-6 MCR100-8	V <sub>DRM</sub> AND V <sub>RRM</sub>	I <sub>DRM</sub> =10μA	400 600		V	
Peak forward or reverse blocking Current	I <sub>DRM</sub> I <sub>RRM</sub>	V <sub>AK</sub> =Rated V <sub>DRM</sub> or V <sub>RRM</sub>		10	μA	
Holding current	I <sub>H</sub>	I <sub>HL</sub> =20mA V <sub>AK</sub> =7V		5	mA	
Gate trigger current	I <sub>GT</sub>	V <sub>AK</sub> =7V	A2	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 ELECTRICAL 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
$\theta$	0°	8°	0°	8°