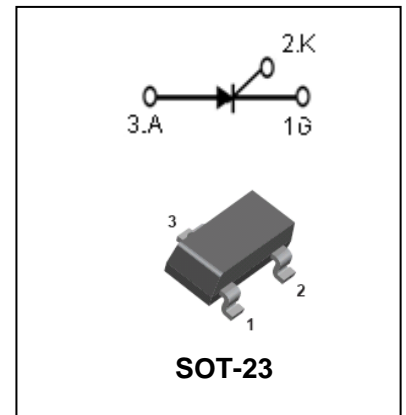


FEATURES

- Sensitive gate allows triggering by micro controllers and other logic circuits
- Blocking voltage to 600V
- On-state current rating of 0.8A RMS at 80°C
- High surge current capability – 10A
- Minimum and maximum values of IGT, VGT and IH specified for ease of design
- Immunity to dV/dt – 20V/μsec minimum at 110°C
- Glass-passivated surface for reliability and uniformity



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
MCR100-4S	100-4	SOT-23
MCR100-6S	MCR16	SOT-23
MCR100-8S	100-8	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	MAX	Unit
Peak Reverse Blocking Voltage	V_{RRM}	200	V
MCR100-4S		400	
MCR100-6S		600	
Forward Current RMS	$I_{T(RMS)}$	0.8	A
Peak Forward Surge Current, TA=25°C (1/2cycle, Sine Wave, 60Hz)	I_{TSM}	10	A
Circuit Fusing Considerations, TA=25°C (t=1to8.3ms)	I^2t	0.415	A ² s
Peak Gate Power-Forward, TA=25°C	P_{GM}	0.1	W
Average Gate Power-Forward, TA=25°C	$P_{GF(AV)}$	0.1	W
Peak Gate Current-Forward, TA=25°C (300us, 120pps)	I_{GFM}	1	A
Peak Gate Voltage-Reverse	V_{GRM}	5	V
Operating Junction Temperature Range @Rated VRRM and VDRM	T_j	-40 to +110	°C
Storage Temperature Range	T_{stg}	-40 to +150	°C
Junction to Ambient	θ_{JA}	400	°C/W



MCR100-4/6/8S

Plastic Silicon Controlled Rectifiers

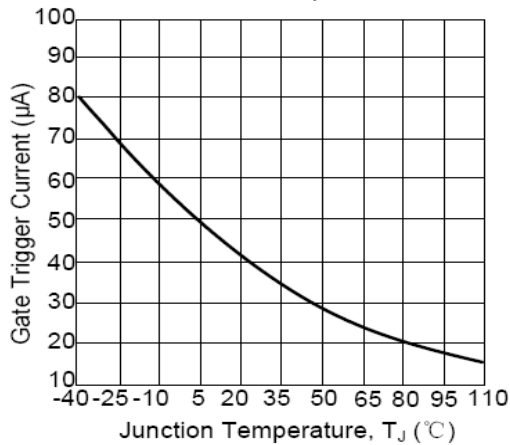
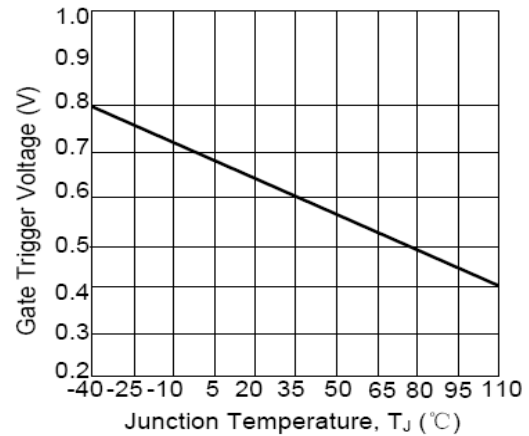
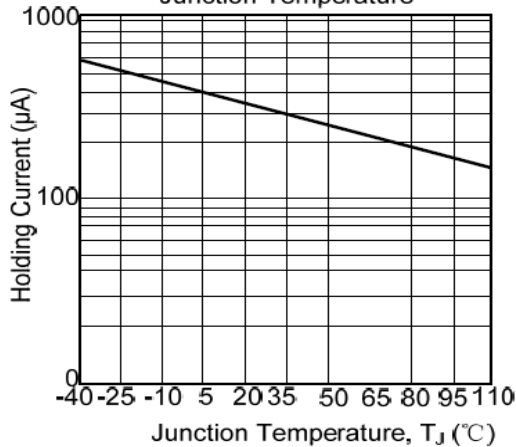
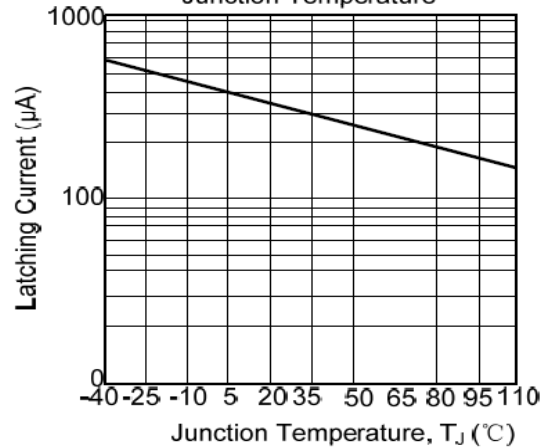
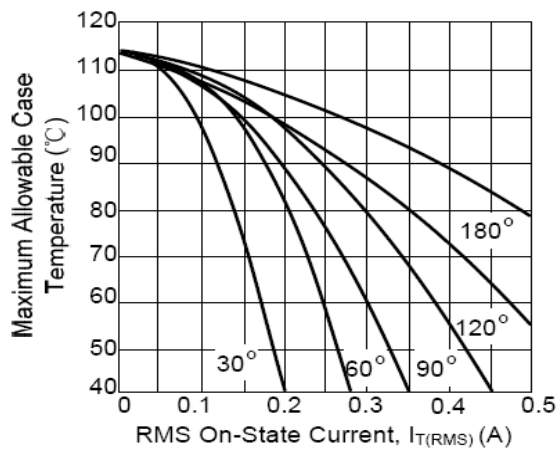
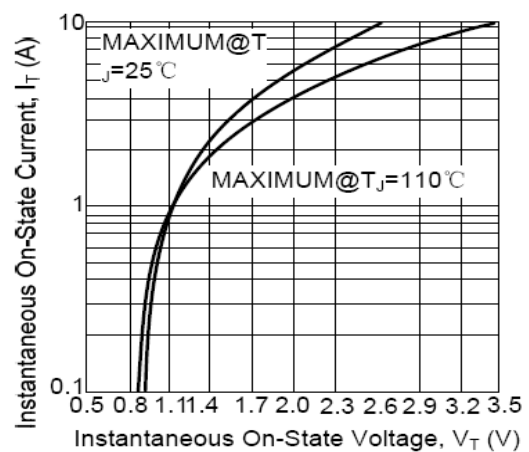


ELECTRICAL CHARACTERISTICS @ TC=25°C unless otherwise specified

Charatcteristic		Symbol	MIN	MAX	UNIT
Peak Forward Blocking Voltage	MCR100-4S MCR100-6S MCR100-8S	VDRM	200 400 600		V
VD=Rated VDRM and VRRM;RGK=1kΩ	TC=25°C TC=125°C	IDRM IRRM		10 100	μA
Forward“On”Voltage(Note1) (ITM=1A peak @ TA=25°C)		VTM		1.7	V
Anode Voltage=7Vdc,RL=100Ω TC=25°C		IGT		200	μA
VAK=7Vdc, RL=100Ω	TC=25°C TC=-40°C	VGT		0.8 1.2	V
VAK=7Vdc, initiating current=20mA	TC=25°C TC=-40°C	IH		5 10	mA
VD=Rated VDRM, Exponential Waveform, RGK=1000Ω, TJ=110°C		dV/dt	20		V/μS
IPK=20A; Pw=10μsec;diG/dt=1A/μsec, Igt=20mA		di/dt		50	A/μS

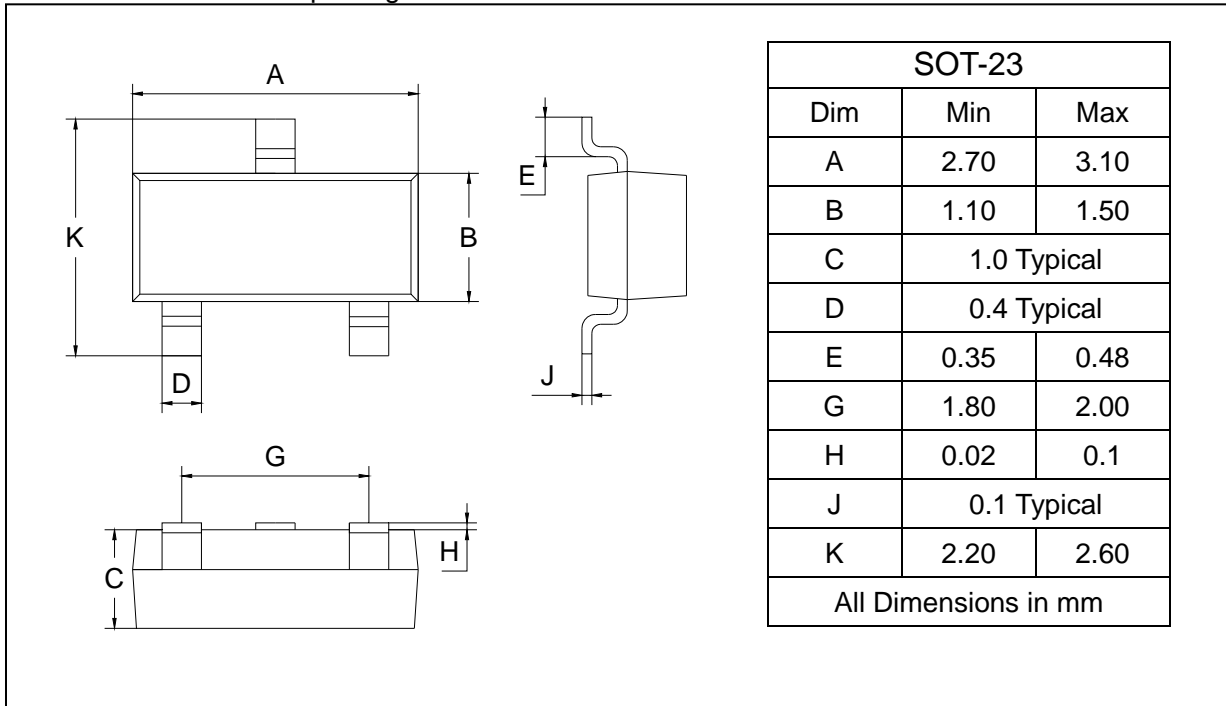
Notes: 1.Forward current applied for 1ms maximum duration,duty cycle<=1%

2.RGK current is not included in measurement

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified
Typical Gate Trigger Current vs. Junction Temperature

Typical Gate Trigger Voltage vs. Junction Temperature

Typical Holding Current vs. Junction Temperature

Typical Latching Current vs. Junction Temperature

Typical RMS Current Derating

Typical On-State Characteristics


PACKAGE OUTLINE

Plastic surface mounted package



SOLDERING FOOTPRINT

