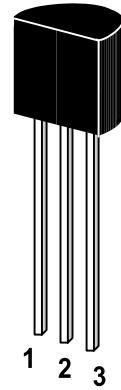
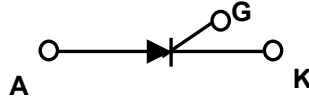


MCR100-3 ... MCR100-8



1. Cathode 2. Gate 3. Anode

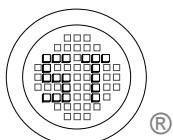
TO-92 Plastic Package
Weight approx. 0.18g

MAXIMUM RATINGS ($T_J=25^\circ\text{C}$ unless otherwise noted.)

Rating	Symbol	Value	Unit
Peak Repetitive Forward and Reverse Blocking Voltage, Note 1 ($T_J=25$ to 125°C , $R_{GK}=1\text{K}\Omega$)	V_{DRM} and V_{RRM}	100 200 300 400 500 600	Volts
Forward Current RMS (All Conduction Angles)	$I_{\text{T(RMS)}}$	0.8	Amps
Peak Forward Surge Current, $T_A=25^\circ\text{C}$ (1/2 Cycle, Sine Wave, 60Hz)	I_{TSM}	10	Amps
Circuit Fusing ($t=8.3\text{ms}$)	I^2t	0.415	A^2s
Peak Gate Power - Forward, $T_A=25^\circ\text{C}$	P_{GM}	0.1	Watts
Average Gate Power - Forward, $T_A=25^\circ\text{C}$	$P_{\text{GF(AV)}}$	0.01	Watt
Peak Gate Current - Forward, $T_A=25^\circ\text{C}$ (300 μs , 120PPS)	I_{GFM}	1	Amp
Peak Gate Voltage - Reverse	V_{GRM}	5	Volts
Operating Junction Temperature Range @ Rated V_{RRM} and V_{DRM}	T_J	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	T_s	-40 to +150	$^\circ\text{C}$

Note 1. Ratings apply for zero or negative gate voltage; however, positive gate voltage shall not be applied concurrent with negative potential on the anode.

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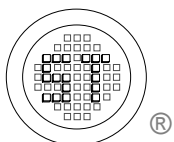
MCR100-3 ... MCR100-8

CHARACTERISTICS ($T_c=25^\circ\text{C}$, $R_{GK}=1\text{K}\Omega$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
Peak Forward or Reverse Blocking Current ($V_{AK}=\text{Rated } V_{DRM} \text{ or } V_{RRM}$)	I_{DRM}, I_{RRM}	-	10	μA
Forward "On" Voltage ($I_{TM}=1\text{A Peak @ } T_A=25^\circ\text{C}$)	V_{TM}	-	1.7	Volts
Gate Trigger Current(Continuous dc), Note 1 (Anode Voltage=7Vdc, $R_L=100$ Ohms)	I_{GT}	-	200	μA
Gate Trigger Voltage(Continuous dc) (Anode Voltage=7Vdc, $R_L=100$ Ohms) (Anode Voltage=Rated V_{DRM} , $R_L=100$ Ohms)	V_{GT}	-	0.8	Volts
Holding Current (Anode Voltage=7Vdc, initiating current=20mA)	I_H	-	5	mA

Note 1. R_{GK} current is not included in measurement.

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Dated : 06/12/2003

MCR100-3 ... MCR100-8

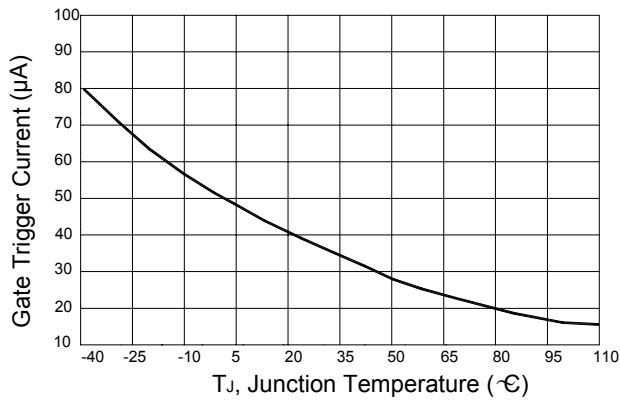


Figure 1. Typical Gate Trigger Current Versus Junction Temperature

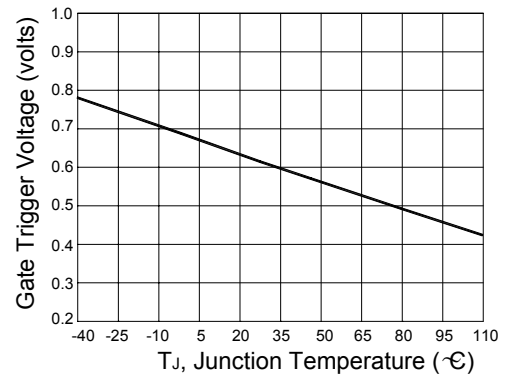


Figure 2. Typical Gate Trigger Voltage Versus Junction Temperature

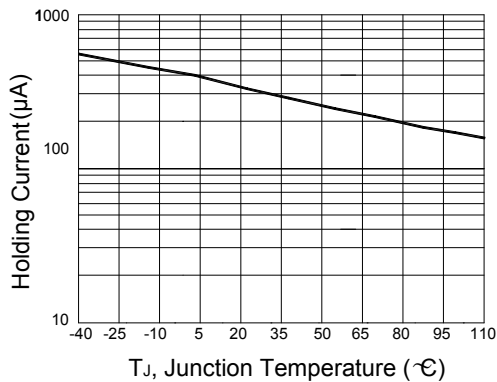


Figure 3. Typical Holding Current Versus Junction Temperature

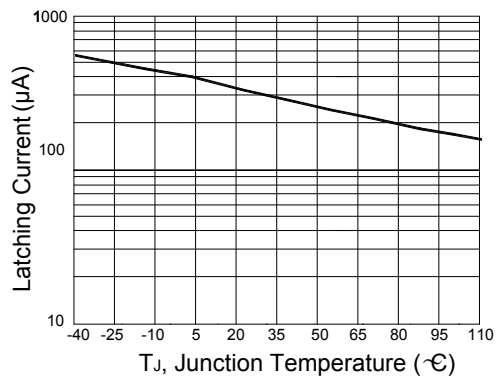


Figure 4. Typical Latching Current Versus Junction Temperature

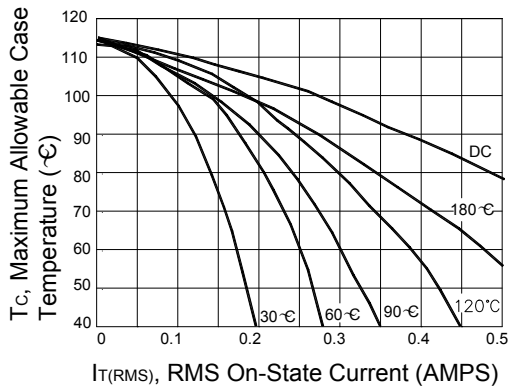


Figure 5. Typical RMS Current Derating

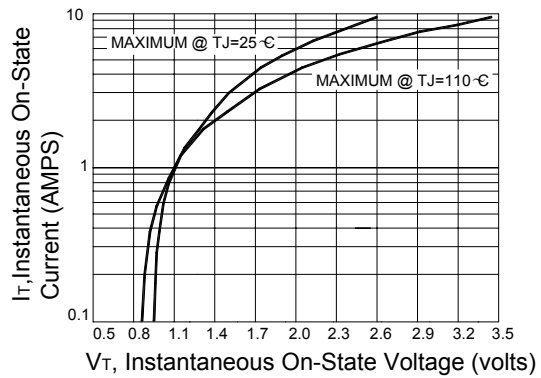
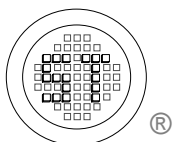


Figure 6. Typical On-State Characteristics



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