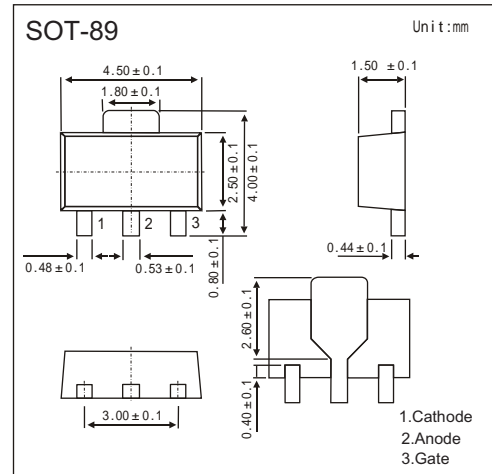


Silicon Controlled Rectifiers

MCR100-8 R

■ Features

- Blocking voltage to 400 V
- RMS on-state current to 0.8 A
- General purpose switching



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Repetitive Forward and Reverse Blocking Voltage ($T_J = 25$ to 125°C , $R_{\theta K} = 1 \text{ K } \Omega$)	V_{DRM} and V_{RRM}	600	V
Forward Current RMS	$I_{T(RMS)}$	0.8	A
Peak Forward Surge Current, $T_A = 25^\circ\text{C}$ (1/2 Cycle, Sine Wave, 60 Hz)	I_{TSM}	10	A
Circuit Fusing Considerations ($t = 8.3 \text{ ms}$)	I^2t	0.415	A^2s
Peak Gate Power — Forward, $T_A = 25^\circ\text{C}$	P_{GM}	0.1	W
Average Gate Power — Forward, $T_A = 25^\circ\text{C}$	$P_{GF(AV)}$	0.01	W
Peak Gate Current — Forward, $T_A = 25^\circ\text{C}$ (300 ms, 120 PPS)	I_{GFM}	1	A
Peak Gate Voltage — Reverse	V_{GRM}	5	V
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	200	$^\circ\text{C/W}$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	75	$^\circ\text{C/W}$
Operating Junction Temperature Range @ Rated V_{RRM} and V_{DRM}	T_J	-40 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-40 to +150	$^\circ\text{C}$
Lead Solder Temperature (<1/16" from case, 10 s max)		230	$^\circ\text{C}$

MCR100-8

■ Electrical Characteristics (Ta = 25°C, Rgk = 1 kΩ unless otherwise noted.)

Parameter	Symbol	Testconditions	Min	Max	Unit
Peak Forward or Reverse Blocking Current Tc = 25°C Tc = 125°C	IDRM, IRRM	VAK = Rated VDRM or VRRM		10 100	μ A
Forward "On" Voltage *1	V _{TM}	I _{TM} = 1 A Peak @ TA = 25°C		1.7	V
Gate Trigger Current (Continuous DC) *2 Tc = 25°C	I _{GT}	Anode Voltage = 7 V, RL = 100Ω		200	μ A
Gate Trigger Voltage (Continuous DC) Tc = 25°C Tc = -40°C Tc = 125°C	V _{GT}	Anode Voltage=7V,RL=100 Ω Anode Voltage = Rated V _{DRM} ,RL=100Ω	0.1	0.8 1.2	V
Holding Current Tc=25°C Tc=-40°C	I _H	Anode Voltage=7V,initiating current=20mA		5 10	mA

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

*2. Rgk current is not included in measurement.

■ Marking

Marking	BT
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