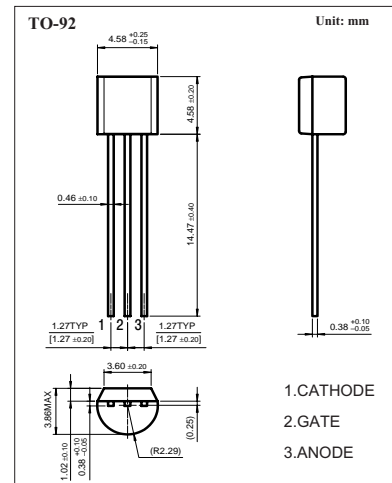
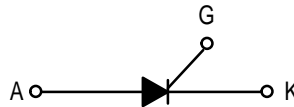


## Silicon Controlled Rectifiers MCR100-8

■ Features

- Blocking voltage to 600V
- 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 $125^{\circ}\text{C}$ , $R_{\theta K} = 1 \text{ K}\Omega$ )	$V_{DRM}$ 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	$\text{A}^2\text{s}$
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	$^{\circ}\text{C}/\text{W}$
Thermal Resistance, Junction to Case	$R_{\theta JC}$	75	$^{\circ}\text{C}/\text{W}$
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	$I_{DRM}, I_{RRM}$	$V_{AK} = \text{Rated } V_{DRM} \text{ or } V_{RRM}$		10 100	$\mu A$
Forward "On" Voltage *1	$V_{TM}$	$I_{TM} = 1 A \text{ Peak @ } T_A = 25^\circ C$		1.7	V
Gate Trigger Current (Continuous DC) *2	$I_{GT}$	Anode Voltage = 7 V, $R_L = 100\Omega$		200	$\mu A$
Gate Trigger Voltage (Continuous DC)	$V_{GT}$	Anode Voltage=7V, $R_L=100\Omega$ Anode Voltage = Rated $V_{DRM}$ , $R_L=100\Omega$	0.1	0.8 1.2	V
Holding Current	$I_H$	Anode Voltage=7V, initiating current=20mA		5 10	mA

\*1. Forward current applied for 1 ms maximum duration, duty cycle  $\leq 1\%$ .

\*2. Rgk current is not included in measurement.

## ■ Marking

Marking	MCR100-8
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