

**CQ89D
CQ89M
CQ89N**

**2.0 AMP TRIAC
400 THRU 800 VOLTS**



SOT-89 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQ89D series types are epoxy molded silicon triacs designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

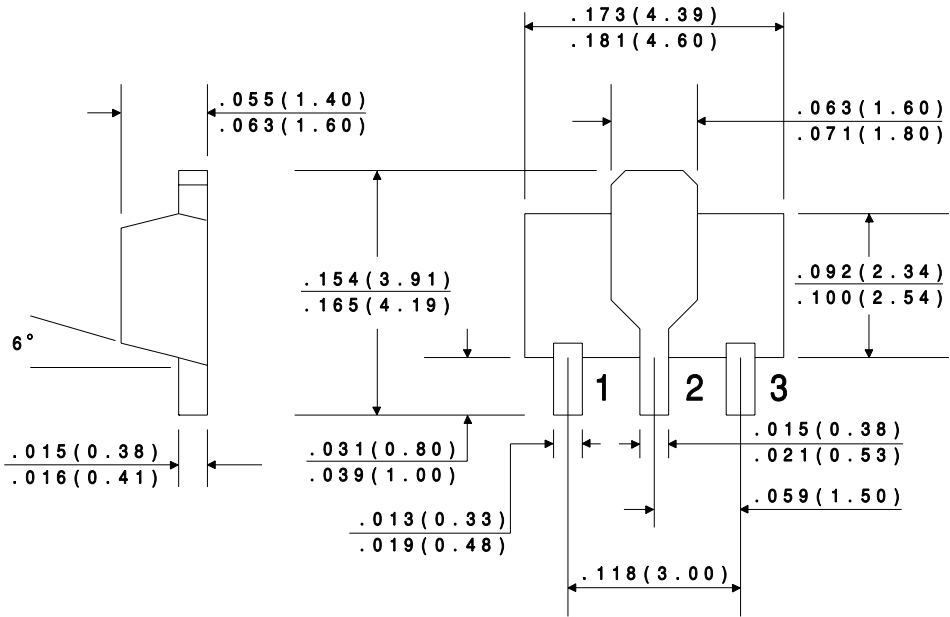
MAXIMUM RATINGS ($T_C=25^{\circ}\text{C}$)

	SYMBOL	CQ89D	CQ89M	CQ89N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	400	600	800	V
RMS On-State Current ($T_C=80^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$		2.0		A
Peak One Cycle Surge (10ms)	I_{TSM}		10		A
Peak Gate Current	I_{GM}		1.0		A
Average Gate Power Dissipation	$P_{\text{G(AV)}}$		0.1		W
Storage Temperature	T_{stg}		-45 to +150		$^{\circ}\text{C}$
Junction Temperature	T_{J}		-45 to +125		$^{\circ}\text{C}$
Thermal Resistance	$\theta_{\text{J-C}}$		10		$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	$V_{\text{D}}=\text{Rated } V_{\text{DRM}}$			5.00	μA
I_{DRM}	$V_{\text{D}}=\text{Rated } V_{\text{DRM}}, T_C=125^{\circ}\text{C}$			200	μA
I_{GT}	$V_{\text{D}}=12\text{V}, \text{QUAD I, II, III, IV}$			25	mA
I_{H}	$V_{\text{D}}=12\text{V}$			25	mA
V_{GT}	$V_{\text{D}}=12\text{V}$			2.00	V
V_{TM}	$I_{\text{T}}=3.0\text{A}$			1.75	V
dv/dt	$V_{\text{D}}=2/3 V_{\text{DRM}}, T_C=125^{\circ}\text{C}$	100			V/ μs

All dimensions in inches (mm).



LEAD CODE:

- 1) GATE
- 2) MT2
- 3) MT1