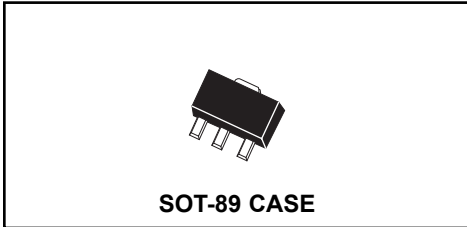


PRELIMINARY

CQ89D
CQ89M
CQ89N

**1.0 AMP TRIAC
400 THRU 800 VOLTS**



CentralTM

Semiconductor Corp.

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.

MARKING CODE: FULL PART NUMBER

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

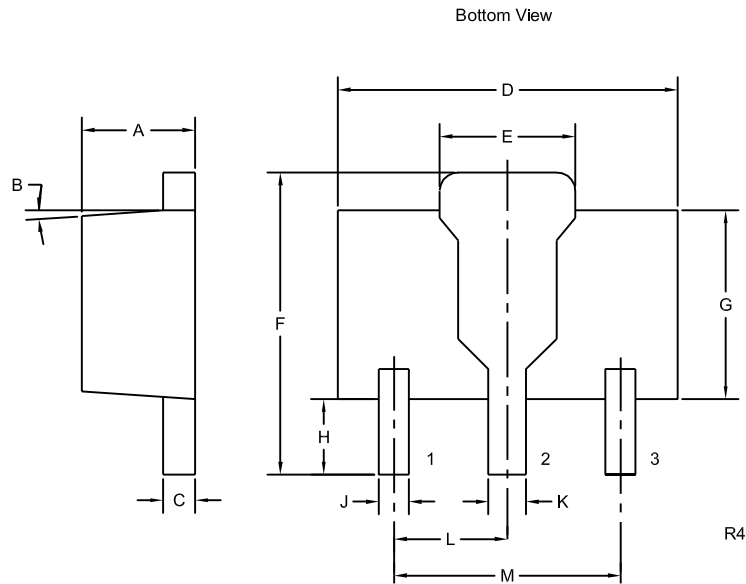
	SYMBOL	<u>CQ89D</u>	<u>CQ89M</u>	<u>CQ89N</u>	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	400	600	800	V
RMS On-State Current ($T_C=80^\circ\text{C}$)	I_T (RMS)		1.0		A
Peak One Cycle Surge ($t_p=10$ ms)	I_{TSM}		10		A
Peak Gate Current	I_{GM}		1.0		A
Average Gate Power Dissipation	P_G (AV)		0.1		W
Storage Temperature	T_{stg}		-40 to +150		$^\circ\text{C}$
Junction Temperature	T_J		-40 to +125		$^\circ\text{C}$
Thermal Resistance	θ_{JC}		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}	$V_D=Rated V_{DRM}$			10	μA
I_{DRM}	$V_D=Rated V_{DRM}, T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}, QUAD I, II, III, IV$			10	mA
I_H	$V_D=12\text{V}$			10	mA
V_{GT}	$V_D=12\text{V}, R_L=10\Omega, QUAD I, II, III$			2.0	V
V_{GT}	$V_D=12\text{V}, R_L=10\Omega, QUAD IV$			2.5	V
V_{TM}	$I_T=1.0\text{A}$			2.0	V
dv/dt	$V_D=2/3 V_{DRM}, T_C=125^\circ\text{C}$	5.0			V/ μs

R4 (10-June 2004)

SOT-89 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R4 (10-June 2004)