

CQ92-2M
CQ92-2N*

TRIAC
2.0 AMP, 600 THRU 800 VOLTS



TO-92 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQ92-2M and CQ92-2N 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: ($T_C=25^\circ\text{C}$ unless otherwise noted)

	<u>SYMBOL</u>	<u>CQ92-2M</u>	<u>CQ92-2N*</u>	<u>UNITS</u>
Peak Repetitive Off-State Voltage	V_{DRM}	600	800	V
RMS On-State Current ($T_C=50^\circ\text{C}$)	$I_{T(RMS)}$	2.0		A
Peak One Cycle Surge ($t=10\text{ms}$)	I_{TSM}	20		A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t	2.0		A^2s
Peak Gate Power ($t_p=10\mu\text{s}$)	P_{GM}	3.0		W
Average Gate Power Dissipation	$P_G (AV)$	0.2		W
Peak Gate Current ($t_p=10\mu\text{s}$)	I_{GM}	1.2		A
Peak Gate Voltage ($t_p=10\mu\text{s}$)	V_{GM}	8.0		V
Storage Temperature	T_{stg}	-40 to +150		$^\circ\text{C}$
Junction Temperature	T_J	-40 to +125		$^\circ\text{C}$
Thermal Resistance	θ_{JA}	180		$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}	90		$^\circ\text{C/W}$

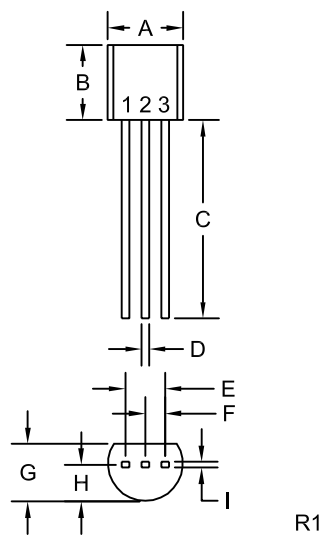
ELECTRICAL CHARACTERISTICS: ($T_C=25^\circ\text{C}$ unless otherwise noted)

<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
I_{DRM}	Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$			5.0	μA
I_{DRM}	Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$, $T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}$, QUAD I, II, III		1.4	5.0	mA
I_{GT}	$V_D=12\text{V}$, QUAD IV		3.8	8.0	mA
I_H	$I_T=100\text{mA}$, $R_{GK}=1\text{K}\Omega$		1.2	5.0	mA
V_{GT}	$V_D=12\text{V}$, QUAD I, II, III, IV		1.1	1.8	V
V_{TM}	$I_{TM}=2.0\text{A}$, $t_p=380\mu\text{s}$		1.50	1.75	V
V_{TM}	$I_{TM}=3.0\text{A}$, $t_p=380\mu\text{s}$		1.7	2.0	V
dv/dt	$V_D=2/3 V_{DRM}$, $T_C=125^\circ\text{C}$	2.5			$\text{V}/\mu\text{s}$

* Available on request. Please consult factory.

R0 (22-April 2004)

TO-92 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:
FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)