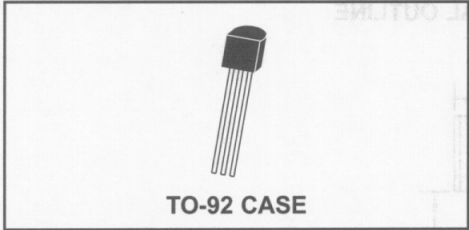


**CQ92-2M**  
**CQ92-2N\***

**TRIAC**

**2.0 AMP, 600 THRU 800 VOLTS**



**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>CS92-2N*</u>	<u>UNITS</u>
Peak Repetitive Off-State Voltage	$V_{DRM}$	600	800	V
RMS On-State Current ( $T_C=50^\circ\text{C}$ )	$I_T(\text{RMS})$	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 <sup>2</sup> s
Peak Gate Power ( $t_p=10\mu\text{s}$ )	$P_{GM}$	3.0		W
Average Gate Power Dissipation	$P_G(\text{AV})$	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	$\theta_{JA}$	180		$^\circ\text{C/W}$
Thermal Resistance	$\theta_{JC}$	90		$^\circ\text{C/W}$

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

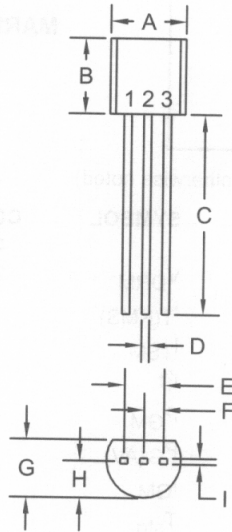
<u>SYMBOL</u>	<u>TEST CONDITIONS</u>	<u>MIN</u>	<u>TYP</u>	<u>MAX</u>	<u>UNITS</u>
$I_{DRM}$	Rated $V_{DRM}$ , $R_{GK}=1\text{K}\Omega$			5.0	$\mu\text{A}$
$I_{DRM}$	Rated $V_{DRM}$ , $R_{GK}=1\text{K}\Omega$ , $T_C=125^\circ\text{C}$			200	$\mu\text{A}$
$I_{GT}$	$V_D=12\text{V}$ , QUAD I, II, III		1.4	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			V/ $\mu\text{s}$

\* Available on request. Please consult factory.

CQ92-2M  
CQ92-2N\*

**TRIAC**  
**2.0 AMP, 600 THRU 800 VOLTS**

**TO-92 CASE - MECHANICAL OUTLINE**



**DATA SHEETS**

R1

**LEAD CODE:**

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

**MARKING CODE:**  
**FULL PART NUMBER**

SYMBOL	DIMENSIONS			
	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)