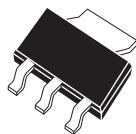


PRELIMINARY

CQ223M
CQ223N1.0 AMP TRIAC
600 THRU 800 VOLTS

SOT-223 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQ223M 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:** ($T_C=25^\circ\text{C}$)

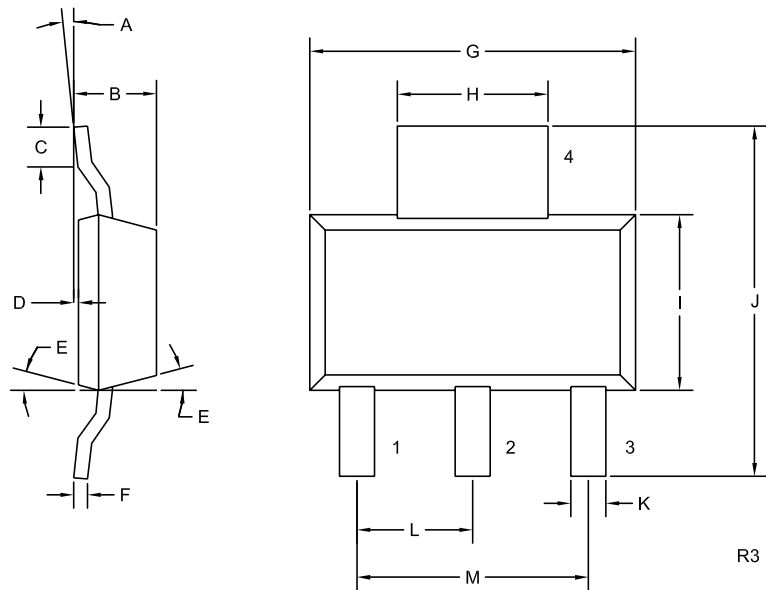
	SYMBOL	CQ223M	CQ223N	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	600	800	V
RMS On-State Current ($T_C=80^\circ\text{C}$)	I_T (RMS)		1.0	A
Peak One Cycle Surge ($t_p=10$ ms)	I_{TSM}		10	A
Peak Gate Current	I_{GM}		1.0	A
Average Gate Power Dissipation	P_G (AV)		0.1	W
Storage Temperature	T_{stg}	-40 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}	$V_D=\text{Rated } V_{\text{DRM}}$			10	μA
I_{DRM}	$V_D=\text{Rated } V_{\text{DRM}}, T_C=125^\circ\text{C}$			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	$V_D=2/3 V_{\text{DRM}}, T_C=125^\circ\text{C}$	5.0			V/ μs

R0 (10-June 2004)

SOT-223 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING CODE:

FULL PART NUMBER

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	15°		15°	
F	0.009	0.014	0.23	0.35
G	0.248	0.264	6.30	6.70
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R3)

R0 (10-June 2004)