

CQ202-4BS-2
 CQ202-4DS-2
 CQ202-4MS-2
 CQ202-4NS-2

4.0 AMP TRIAC
 200 THRU 800 VOLTS



TO-202-2 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQ202-4BS-2 series type is an epoxy molded silicon triac designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

MARKING: FULL PART NUMBER

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

	SYMBOL	CQ202 -4BS-2	CQ202 -4DS-2	CQ202 -4MS-2	CQ202 -4NS-2	UNITS
Peak Repetitive Off-State Voltage	V_{DRM}	200	400	600	800	V
RMS On-State Current ($T_C=80^\circ\text{C}$)	$I_{T(RMS)}$			4.0		A
Peak Non-Repetitive Surge Current ($t=8.3\text{ms}$)	I_{TSM}			40		A
Peak Non-Repetitive Surge Current ($t=10\text{ms}$)	I_{TSM}			35		A
I^2t Value for Fusing ($t=10\text{ms}$)	I^2t			6.0		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
Storage Temperature	T_{stg}		-40 to +150			$^\circ\text{C}$
Junction Temperature	T_J		-40 to +125			$^\circ\text{C}$
Thermal Resistance	θ_{JA}		60			$^\circ\text{C}/\text{W}$
Thermal Resistance	θ_{JC}		7.5			$^\circ\text{C}/\text{W}$

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

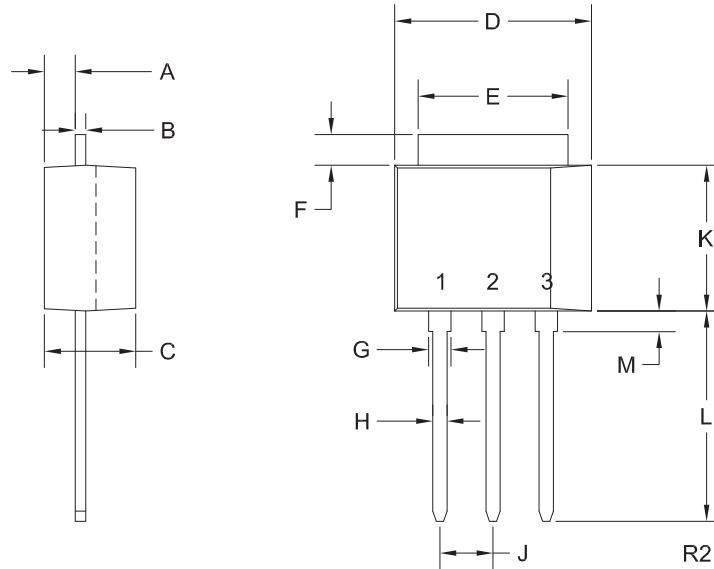
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{DRM}	Rated V_{DRM} , $R_{GK}=1.0\text{K}\Omega$			10	μA
I_{DRM}	Rated V_{DRM} , $R_{GK}=1.0\text{K}\Omega$, $T_C=125^\circ\text{C}$			200	μA
I_{GT}	$V_D=12\text{V}$, QUAD I, II, III		2.5	5.0	mA
I_{GT}	$V_D=12\text{V}$, QUAD IV		5.4	9.0	mA
I_H	$R_{GK}=1.0\text{K}\Omega$		1.6	5.0	mA
V_{GT}	$V_D=12\text{V}$, QUAD I, II, III		0.95	1.75	V
V_{TM}	$I_{TM}=6.0\text{A}$, $t_p=380\mu\text{s}$		1.25	1.75	V
dv/dt	$V_D=\frac{2}{3} V_{DRM}$, $T_C=125^\circ\text{C}$	11			$\text{V}/\mu\text{s}$

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TO-202-2 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
 - 2) Anode
 - 3) Gate
- Tab is common to pin 2

MARKING:

FULL PART NUMBER

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.071	1.40	1.80
B	0.016	0.024	0.40	0.60
C	0.173	0.181	4.40	4.60
D	0.374	0.413	9.50	10.5
E	0.236	0.355	6.00	9.00
F	-	0.071	-	1.80
G	0.035	0.055	0.90	1.40
H	0.023	0.031	0.59	0.80
J	0.094	0.106	2.39	2.69
K	0.280	0.346	7.12	8.80
L	0.406	0.531	10.3	13.5
M	0.024	0.059	0.60	1.50

TO-202-2 (REV: R2)

R2 (23-April 2012)