

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

4.0 AMP TRIAC  
 200 THRU 800 VOLTS



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CQ202-4BS 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**



TO-202 CASE

**MAXIMUM RATINGS:** (T<sub>C</sub>=25°C unless otherwise noted)

	SYMBOL	CQ202 -4BS	CQ202 -4DS	CQ202 -4MS	CQ202 -4NS	UNITS
Peak Repetitive Off-State Voltage	V <sub>DRM</sub>	200	400	600	800	V
RMS On-State Current (T <sub>C</sub> =80°C)	I <sub>T(RMS)</sub>			4.0		A
Peak Non-Repetitive Surge Current (t=8.3ms)	I <sub>TSM</sub>			40		A
Peak Non-Repetitive Surge Current (t=10ms)	I <sub>TSM</sub>			35		A
I <sup>2</sup> t Value for Fusing (t=10ms)	I <sup>2</sup> t			6.0		A <sup>2</sup> s
Peak Gate Power (tp=10µs)	P <sub>GM</sub>			3.0		W
Average Gate Power Dissipation	P <sub>G(AV)</sub>			0.2		W
Peak Gate Current (tp=10µs)	I <sub>GM</sub>			1.2		A
Storage Temperature	T <sub>stg</sub>		-40 to +150			°C
Junction Temperature	T <sub>J</sub>		-40 to +125			°C
Thermal Resistance	θ <sub>JA</sub>		60			°C/W
Thermal Resistance	θ <sub>JC</sub>		7.5			°C/W

**ELECTRICAL CHARACTERISTICS:** (T<sub>C</sub>=25°C unless otherwise noted)

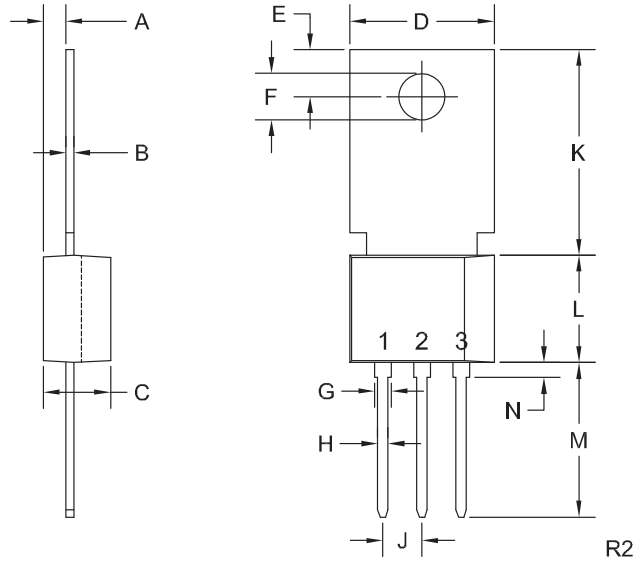
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>DRM</sub>	Rated V <sub>DRM</sub> , R <sub>GK</sub> =1.0KΩ			10	µA
I <sub>DRM</sub>	Rated V <sub>DRM</sub> , R <sub>GK</sub> =1.0KΩ, T <sub>C</sub> =125°C			200	µA
I <sub>GT</sub>	V <sub>D</sub> =12V, QUAD I, II, III		2.5	5.0	mA
I <sub>GT</sub>	V <sub>D</sub> =12V, QUAD IV		5.4	9.0	mA
I <sub>H</sub>	R <sub>GK</sub> =1.0KΩ		1.6	5.0	mA
V <sub>GT</sub>	V <sub>D</sub> =12V, QUAD I, II, III		0.95	1.75	V
V <sub>TM</sub>	I <sub>TM</sub> =6.0A, tp=380µs		1.25	1.75	V
dv/dt	V <sub>D</sub> =2/3 V <sub>DRM</sub> , T <sub>C</sub> =125°C	11			V/µs

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TO-202 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) MT1
  - 2) MT2
  - 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	0.118	0.154	3.00	3.90
F (DIA)	0.124	0.150	3.15	3.80
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	0.459	0.559	11.66	14.21
L	0.280	0.346	7.12	8.80
M	0.406	0.531	10.3	13.5
N	0.024	0.059	0.60	1.50

TO-202 (REV: R2)

R6 (23-January 2012)