

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_C=25°C unless otherwise noted)

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

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

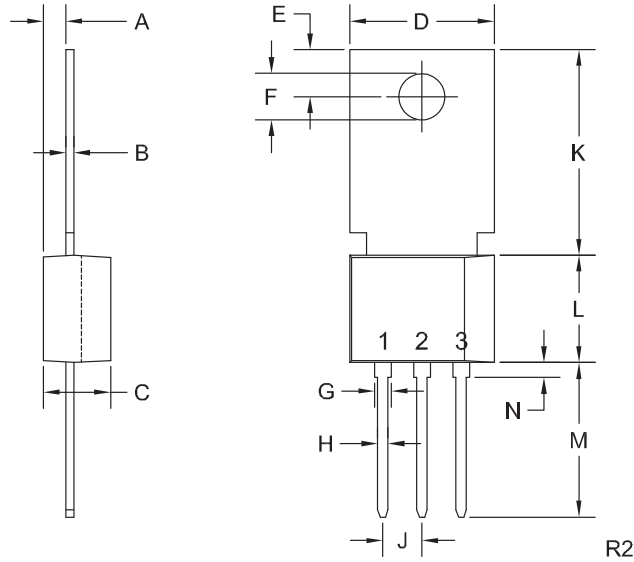
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|------------------|--|-----|------|------|-------|
| I _{DRM} | Rated V _{DRM} , R _{GK} =1.0KΩ | | | 10 | µA |
| I _{DRM} | Rated V _{DRM} , R _{GK} =1.0KΩ, T _C =125°C | | | 200 | µA |
| I _{GT} | V _D =12V, QUAD I, II, III | | 2.5 | 5.0 | mA |
| I _{GT} | V _D =12V, QUAD IV | | 5.4 | 9.0 | mA |
| I _H | R _{GK} =1.0KΩ | | 1.6 | 5.0 | mA |
| V _{GT} | V _D =12V, QUAD I, II, III | | 0.95 | 1.75 | V |
| V _{TM} | I _{TM} =6.0A, tp=380µs | | 1.25 | 1.75 | V |
| dv/dt | V _D =2/3 V _{DRM} , T _C =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)