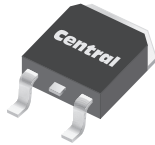


CQD-4M
CQD-4N

SURFACE MOUNT SILICON
TRIACS
4.0 AMP, 600 THRU 800 VOLT



DPAK CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CQD-4M and CQD-4N are epoxy molded silicon TRIACs designed for full wave AC control applications featuring gate triggering in all four quadrants.

MARKING: FULL PART NUMBER

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

| | SYMBOL | CQD-4M | CQD-4N | UNITS |
|---|-------------------|-------------|--------|----------------------|
| Peak Repetitive Off-State Voltage | V_{DRM} | 600 | 800 | V |
| RMS On-State Current ($T_C=80^\circ\text{C}$) | $I_T(\text{RMS})$ | | 4.0 | A |
| Peak One Cycle Surge, $t=10\text{ms}$ | I_{TSM} | | 40 | A |
| I^2t Value for Fusing, $t=10\text{ms}$ | I^2t | | 2.4 | 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 |
| Operating Junction Temperature | T_J | -40 to +125 | | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -40 to +150 | | $^\circ\text{C}$ |

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

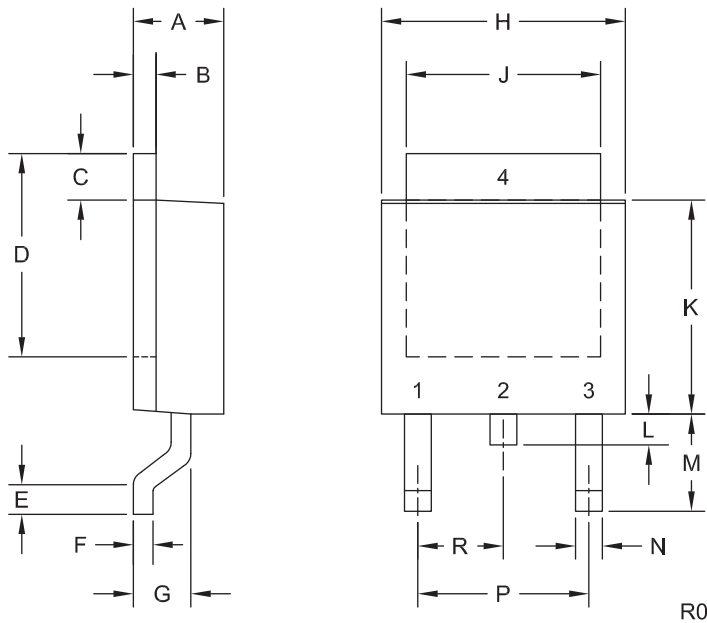
| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------|--|-----|------|------|------------------------|
| I_{DRM} | Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$ | | | 10 | μA |
| I_{DRM} | Rated V_{DRM} , $R_{GK}=1\text{K}\Omega$, $T_C=125^\circ\text{C}$ | | | 200 | μA |
| I_{GT} | $V_D=12\text{V}$, 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 | $R_{GK}=1\text{K}\Omega$ | | 1.6 | 5.0 | mA |
| V_{GT} | $V_D=12\text{V}$, QUAD I, II, III, IV | | 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 | $V_D=2/3 V_{DRM}$, $T_C=125^\circ\text{C}$ | 11 | | | $\text{V}/\mu\text{s}$ |

CQD-4M
CQD-4N

SURFACE MOUNT SILICON
TRIACS
4.0 AMP, 600 THRU 800 VOLT



DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

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

MARKING:

FULL PART NUMBER

| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.083 | 0.108 | 2.10 | 2.75 |
| B | 0.016 | 0.032 | 0.40 | 0.81 |
| C | 0.035 | 0.063 | 0.89 | 1.60 |
| D | 0.203 | 0.228 | 5.15 | 5.79 |
| E | 0.020 | - | 0.51 | - |
| F | 0.018 | 0.024 | 0.45 | 0.60 |
| G | 0.051 | 0.071 | 1.30 | 1.80 |
| H | 0.248 | 0.268 | 6.30 | 6.81 |
| J | 0.197 | 0.217 | 5.00 | 5.50 |
| K | 0.209 | 0.245 | 5.30 | 6.22 |
| L | 0.025 | 0.040 | 0.64 | 1.02 |
| M | 0.090 | 0.115 | 2.30 | 2.91 |
| N | 0.012 | 0.045 | 0.30 | 1.14 |
| P | 0.180 | | 4.60 | |
| R | 0.090 | | 2.30 | |

DPAK (REV: R0)

R2 (21-January 2013)