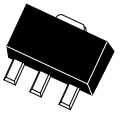
**CQ89D**
**CQ89M**
**CQ89N**

**2.0 AMP TRIAC**
**400 THRU 800 VOLTS**



**SOT-89 CASE**

**Central™**
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CQ89D series types are epoxy molded silicon triacs designed for full wave AC control applications featuring gate triggering in all four (4) quadrants.

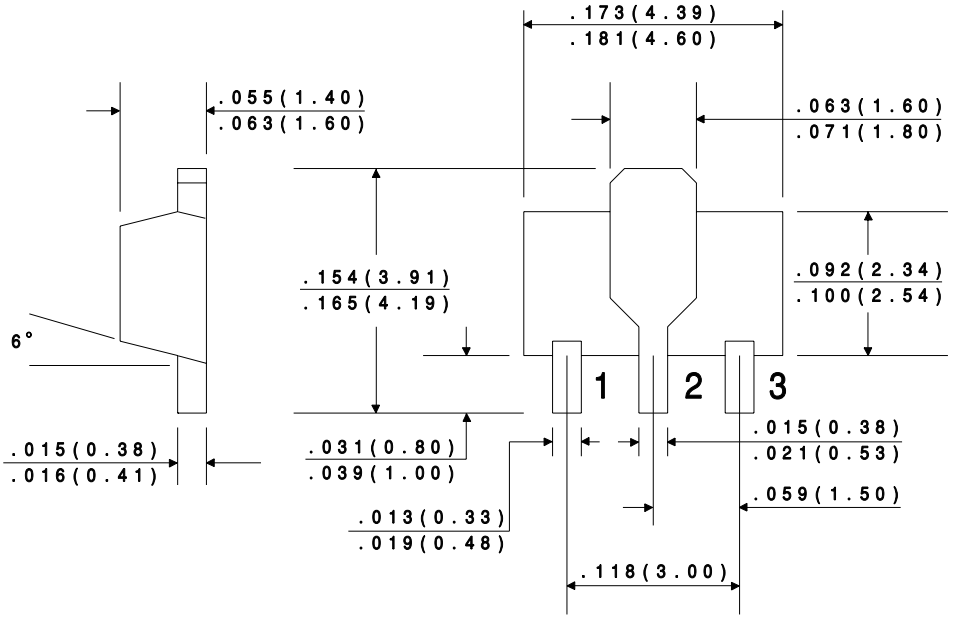
**MAXIMUM RATINGS** ($T_C$=25°C)

| | SYMBOL | CQ89D | CQ89M | CQ89N | UNITS |
|---|---|---|---|---|---|
| Peak Repetitive Off-State Voltage | $V_{DRM}$ | 400 | 600 | 800 | V |
| RMS On-State Current ($T_C$=80°C) | $I_{T(RMS)}$ | | 2.0 | | A |
| Peak One Cycle Surge (10ms) | $I_{TSM}$ | | 10 | | A |
| Peak Gate Current | $I_{GM}$ | | 1.0 | | A |
| Average Gate Power Dissipation | $P_{G(AV)}$ | | 0.1 | | W |
| StorageTemperature | $T_{stg}$ | | -45 to +150 | | °C |
| Junction Temperature | $T_J$ | | -45 to +125 | | °C |
| Thermal Resistance | $\Theta_{J-C}$ | | 10 | | °C/W |

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

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|---|---|---|---|---|---|
| $I_{DRM}$ | $V_D$=Rated $V_{DRM}$ | | | 5.00 | μA |
| $I_{DRM}$ | $V_D$=Rated $V_{DRM}$, $T_C$=125°C | | | 200 | μA |
| $I_{GT}$ | $V_D$=12V, QUAD I, II, III, IV | | | 25 | mA |
| $I_H$ | $V_D$=12V | | | 25 | mA |
| $V_{GT}$ | $V_D$=12V | | | 2.00 | V |
| $V_{TM}$ | $I_T$=3.0A | | | 1.75 | V |
| dv/dt | $V_D$=⅔ $V_{DRM}$, $T_C$=125°C | 100 | | | V/μs |

All dimensions in inches (mm).




LEAD CODE:

1) GATE
2) MT2
3) MT1

R2