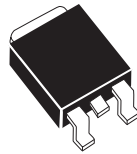


CSD-4M
CSD-4N

4.0 AMP SCR
600 THRU 800 VOLTS



DPAK THYRISTOR CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSD-4M series type is an Epoxy Molded Silicon Controlled Rectifier designed for sensing circuit applications and control systems.

MARKING CODE: FULL PART NUMBER

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

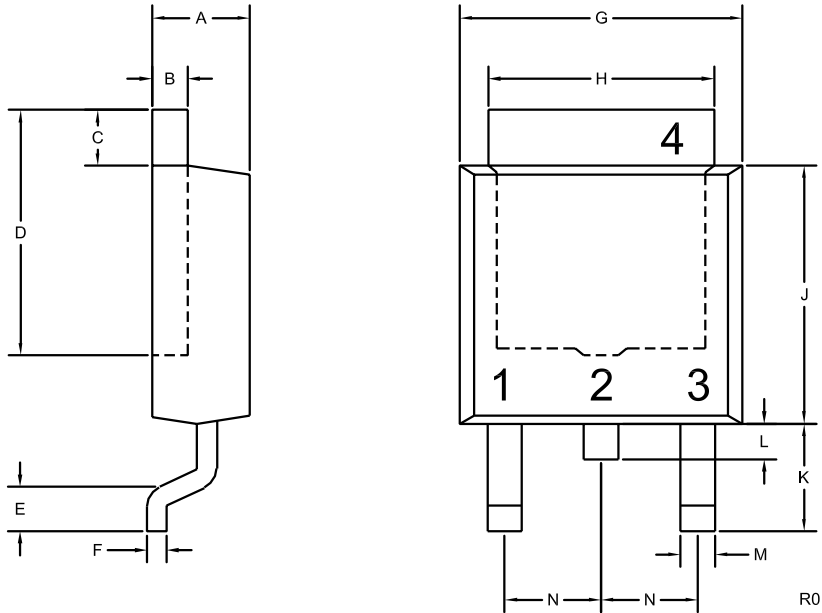
| | SYMBOL | CSD -4M | CSD -4N | UNITS |
|---|--------------------|-------------|------------|------------------------|
| Peak Repetitive Off-State Voltage | V_{DRM}, V_{RRM} | 600 | 800 | V |
| RMS On-State Current ($T_C=85^\circ\text{C}$) | $I_T(\text{RMS})$ | | 4.0 | A |
| Peak One Cycle Surge ($t=10\text{ms}$) | I_{TSM} | | 30 | A |
| I^2t Value for Fusing ($t=10\text{ms}$) | I^2t | | 4.5 | A^2s |
| Peak Gate Power ($t_p=20\mu\text{s}$) | P_{GM} | | 3.0 | W |
| Average Gate Power Dissipation | $P_{G(AV)}$ | | 0.2 | W |
| Peak Gate Current ($t_p=20\mu\text{s}$) | I_{GM} | | 1.2 | A |
| Critical Rate of Rise of On-State Current | di/dt | | 50 | $\text{A}/\mu\text{s}$ |
| Storage Temperature | T_{stg} | -40 to +150 | | $^\circ\text{C}$ |
| Junction Temperature | T_J | -40 to +125 | | $^\circ\text{C}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|--------------------|---|-----|------|-----|------------------------|
| I_{DRM}, I_{RRM} | Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega$ | | | 10 | μA |
| I_{DRM}, I_{RRM} | Rated $V_{DRM}, V_{RRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$ | | | 200 | μA |
| I_{GT} | $V_D=12\text{V}, R_L=10\Omega$ | 20 | 38 | 200 | μA |
| I_H | $I_T=50\text{mA}, R_{GK}=1\text{K}\Omega$ | | 0.25 | 2.0 | mA |
| V_{GT} | $V_D=12\text{V}, R_L=10\Omega$ | | 0.55 | 0.8 | V |
| V_{TM} | $I_{TM}=8.0\text{A}, t_p=380\mu\text{s}$ | | 1.6 | 1.8 | V |
| dv/dt | $V_D=2/3 V_{DRM}, R_{GK}=1\text{K}\Omega, T_C=125^\circ\text{C}$ | 10 | | | $\text{V}/\mu\text{s}$ |

R0 (20-May 2004)

DPAK THYRISTOR CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) CATHODE
- 2) ANODE
- 3) GATE
- 4) ANODE

MARKING CODE:

FULL PART NUMBER

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.086 | 0.094 | 2.18 | 2.39 |
| B | 0.018 | 0.032 | 0.46 | 0.81 |
| C | 0.035 | 0.050 | 0.89 | 1.27 |
| D | 0.205 | 0.228 | 5.21 | 5.79 |
| E | 0.047 | 0.055 | 1.20 | 1.40 |
| F | 0.018 | 0.024 | 0.45 | 0.60 |
| G | 0.250 | 0.268 | 6.35 | 6.81 |
| H | 0.205 | 0.215 | 5.20 | 5.46 |
| J | 0.235 | 0.245 | 5.97 | 6.22 |
| K | 0.100 | 0.108 | 2.55 | 2.74 |
| L | 0.025 | 0.040 | 0.64 | 1.02 |
| M | 0.025 | 0.035 | 0.64 | 0.89 |
| N | 0.090 | | 2.28 | |

DPAK THYRISTOR (REV: R0)

R0 (20-May 2004)