

CUD3-02

**SURFACE MOUNT
ULTRA FAST RECOVERY
SILICON RECTIFIER
4 AMPS, 200 VOLTS**



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUD3-02 is a Silicon Ultra-Fast Recovery Rectifier designed for surface mount ultra fast switching applications requiring a low forward voltage drop.

MARKING: FULL PART NUMBER

**DPAK
POWER!**



DPAK RECTIFIER CASE

| MAXIMUM RATINGS: ($T_C=25^\circ\text{C}$ unless otherwise noted) | SYMBOL | | UNITS |
|--|-------------------|-------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | 200 | V |
| Peak Non Repetitive Surge Reverse Voltage | V_{RSM} | 200 | V |
| Average Rectified Forward Current ($T_C=130^\circ\text{C}$) | I_O | 4.0 | A |
| Continuous Forward RMS Current | $I_F(\text{RMS})$ | 10 | A |
| Peak Forward Surge Current, $t_p=10\text{ms}$ | I_{FSM} | 70 | A |
| Critical Rate of Rise of Reverse Voltage | dv/dt | 10,000 | V/ μs |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | Θ_{JC} | 5.0 | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MAX | UNITS |
|---------------|---|------------|---------------|
| I_R | $V_R=200\text{V}$ | 20 | μA |
| I_R | $V_R=200\text{V}, T_C=100^\circ\text{C}$ | 500 | μA |
| V_F | $I_F=12\text{A}$ | 1.25 | V |
| V_F | $I_F=4.0\text{A}, T_C=100^\circ\text{C}$ | 0.85 | V |
| t_{rr} | $V_R=30\text{V}, I_F=1.0\text{A}, di/dt=50\text{A}/\mu\text{s}$ | 35 | ns |

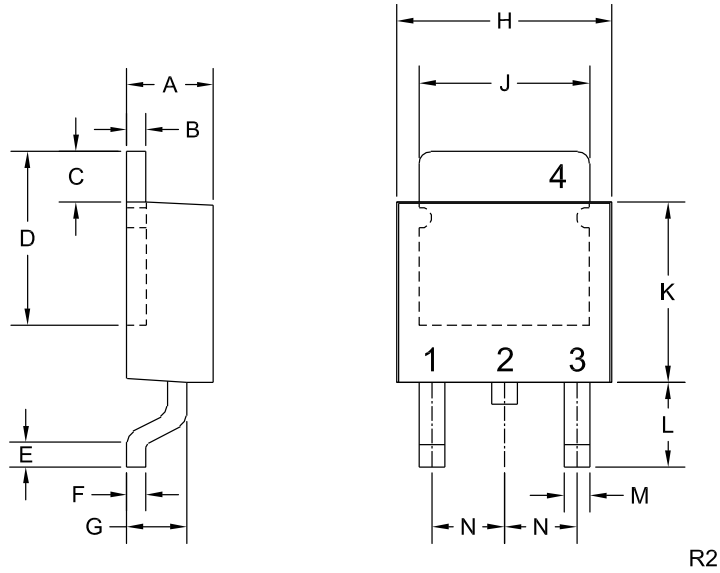
R7 (19-February 2010)

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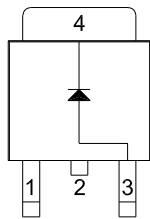
DPAK RECTIFIER CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) No Connection
 - 2) Cathode
 - 3) Anode
 - 4) Cathode
- Pin 2 is Common to the tab (4).

**MARKING:
FULL PART NUMBER**



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.083 | 0.108 | 2.10 | 2.75 |
| B | 0.016 | 0.024 | 0.40 | 0.60 |
| C | 0.063 | | 1.60 | |
| D | 0.203 | 0.219 | 5.15 | 5.55 |
| E | 0.039 | | 1.00 | |
| F | 0.020 | | 0.50 | |
| G | 0.051 | 0.071 | 1.30 | 1.80 |
| H | 0.248 | 0.268 | 6.30 | 6.80 |
| J | 0.197 | 0.217 | 5.00 | 5.50 |
| K | 0.209 | 0.224 | 5.30 | 5.70 |
| L | 0.090 | 0.106 | 2.30 | 2.70 |
| M | 0.012 | 0.031 | 0.30 | 0.80 |
| N | 0.091 | | 2.30 | |

DPAK RECTIFIER (REV: R2)

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