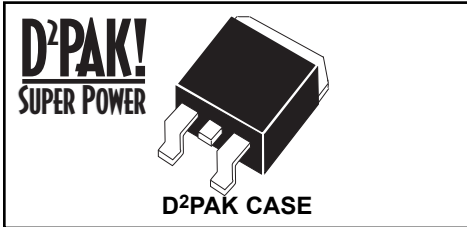


CUDD8-02
 CUDD8-04
 CUDD8-08

**SURFACE MOUNT
 ULTRA FAST RECOVERY
 SILICON RECTIFIER**

SINGLE, 8.0 AMPS, 200 THRU 800 VOLTS



CentralTM Semiconductor Corp.

FEATURES:

- HIGH RELIABILITY
- LOW FORWARD VOLTAGE
- HIGH CURRENT CAPABILITY
- HIGH SURGE CAPACITY
- UL FLAMMABILITY CLASSIFICATION 94V-0
- SUPERIOR LOT TO LOT CONSISTENCY
- ULTRA FAST RECOVERY TIME
- HIGH VOLTAGE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CUDD8-02 Series types are a Silicon Ultra-Fast Recovery Rectifier designed for surface mount ultra fast switching applications requiring a low forward voltage drop. To order devices on 24mm Tape and Reel (800/13" Reel), add TR13 suffix to part number.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C unless otherwise noted)

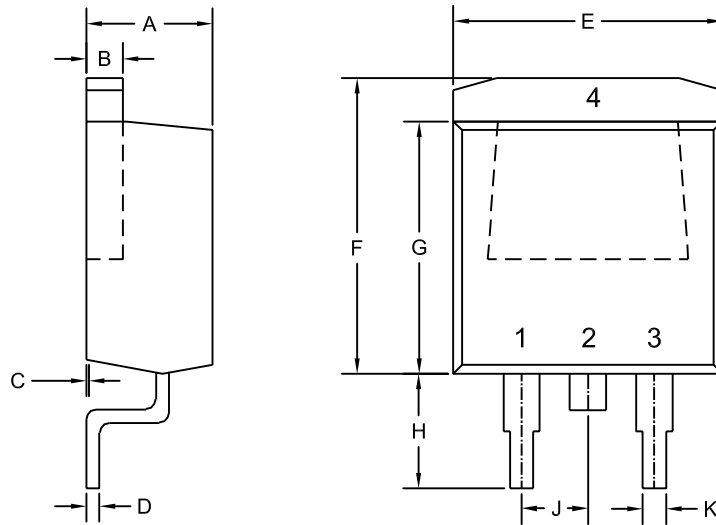
| | SYMBOL | CUDD8-02 | CUDD8-04 | CUDD8-08 | UNITS |
|---|-----------------------------------|-----------------|-----------------|-----------------|--------------|
| Peak Repetitive Reverse Voltage | V _{RRM} | 200 | 400 | 800 | V |
| DC Blocking Voltage | V _R | 200 | 400 | 800 | V |
| RMS Reverse Voltage | V _{R(RMS)} | 140 | 280 | 560 | V |
| Average Forward Current (T _C =100°C) | I _O | | 8.0 | | A |
| Peak Forward Surge Current (8.3ms) | I _{FSM} | | 125 | | A |
| Operating and Storage | | | | | |
| Junction Temperature | T _J , T _{stg} | | -65 to +150 | | °C |
| Typical Thermal Resistance | θ _{JC} | | 3.0 | | °C/W |
| Typical Thermal Resistance | θ _{JA} | | 50 | | °C/W |

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

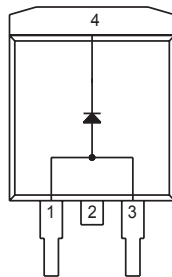
| SYMBOL | TEST CONDITIONS | CUDD8-02 | | CUDD8-04 | | CUDD8-08 | | UNITS |
|-----------------|--|-----------------|------------|-----------------|------------|-----------------|------------|--------------|
| | | TYP | MAX | TYP | MAX | TYP | MAX | |
| I _R | V _R =Rated V _{RRM} | | 5.0 | | 10 | | 10 | μA |
| I _R | V _R =Rated V _{RRM} , T _C = 150°C | | 250 | | 500 | | 500 | μA |
| V _F | I _F =8.0A | | 0.975 | | 1.3 | | 1.5 | V |
| V _F | I _F =8.0A, T _C = 150°C | | 0.895 | | 1.1 | | 1.2 | V |
| t _{rr} | I _F =0.5A, I _R =1.0A, I _{RR} =0.25A | | 25 | | 25 | | 50 | ns |
| C _J | V _R =4.0V, f=1.0MHz | 80 | | 80 | | 50 | | pF |

**SURFACE MOUNT
ULTRA FAST RECOVERY
SILICON RECTIFIER
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D²PAK RECTIFIER CASE - MECHANICAL OUTLINE



R2



LEAD CODE:

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

PIN 2 IS COMMON TO THE TAB (4).

MARKING CODE: FULL PART NUMBER

| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|-------------|-------|
| | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.163 | 0.189 | 4.14 | 4.80 |
| B | 0.045 | 0.055 | 1.14 | 1.40 |
| C | 0.000 | 0.010 | 0.00 | 0.25 |
| D | 0.012 | 0.028 | 0.30 | 0.70 |
| E | 0.386 | 0.409 | 9.80 | 10.40 |
| F | 0.378 | 0.417 | 9.60 | 10.60 |
| G | 0.335 | 0.358 | 8.50 | 9.10 |
| H | 0.197 | 0.236 | 5.00 | 6.00 |
| J | 0.093 | 0.108 | 2.35 | 2.75 |
| K | 0.030 | 0.035 | 0.75 | 0.90 |

D2PAK (REV: R2)