

## Features

- Halogen Free. "Green" Device (Note1)
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Low Switching Losses and High Efficiency
- Low Reverse Leakage
- Ultrafast Recovery Time
- Planar Structure Die and Soft Recovery Characteristics

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 3°C/W Junction to Case

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURSD1060CTA    | MURSD1060CTA   | 600V                                   | 420V                | 600V                        |

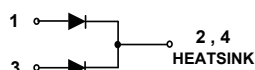
## Electrical Characteristics @ 25°C Unless Otherwise Specified

|  |             |                                     |   |
|--|-------------|-------------------------------------|---|
| Average Rectified Forward Current                    | $I_{F(AV)}$ | 10A                                 | $T_C = 100^\circ\text{C}$   |
| Peak Forward Surge Current                           | $I_{FSM}$   | 70A                                 | 8.3ms, Half Sine  |
| Instantaneous Forward Voltage                        | $V_F$       | 1.4V(Typ)<br>1.6V(Max)<br>1.3V(Max) | $I_F=5A; T_J=25^\circ\text{C}$<br>$I_F=5A; T_J=25^\circ\text{C}$<br>$I_F=5A; T_J=125^\circ\text{C}$ |
| Maximum Reverse Current At Rated DC Blocking Voltage | $I_R$       | 5 $\mu\text{A}$<br>50 $\mu\text{A}$ | $T_J=25^\circ\text{C};$<br>$T_J=125^\circ\text{C}$  |
| Maximum Reverse Recovery Time                        | $t_{rr}$    | 35ns                                | $I_F=0.5A; I_R=1.0A;$<br>$I_{RR}=0.25A$   |
| Typical Junction Capacitance                         | $C_J$       | 18pF                                | Measured at 1.0MHz, $V_R=4.0V$  |

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

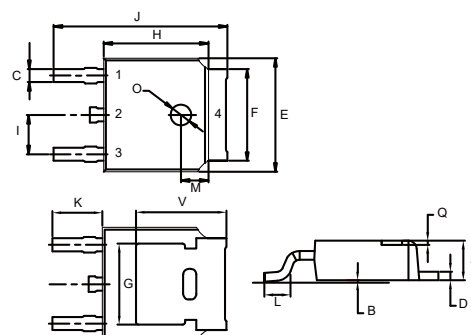
2. High temperature solder exemption applied, see EU directive annex 7a.

## Internal Structure:



# 10 Amp FRED Rectifiers 600 Volts

## DPAK(TO-252)



| DIMENSIONS |        |       |      |       |      |
|------------|--------|-------|------|-------|------|
| DIM        | INCHES |       | MM   |       | NOTE |
|            | MIN    | MAX   | MIN  | MAX   |      |
| A          | 0.087  | 0.094 | 2.20 | 2.40  |      |
| B          | 0.000  | 0.005 | 0.00 | 0.13  |      |
| C          | 0.026  | 0.034 | 0.66 | 0.86  |      |
| D          | 0.018  | 0.023 | 0.46 | 0.58  |      |
| E          | 0.256  | 0.264 | 6.50 | 6.70  |      |
| F          | 0.201  | 0.215 | 5.10 | 5.46  |      |
| G          | 0.190  |       | 4.83 |       |      |
| H          | 0.236  | 0.244 | 6.00 | 6.20  |      |
| I          | 0.086  | 0.094 | 2.18 | 2.39  |      |
| J          | 0.386  | 0.409 | 9.80 | 10.40 |      |
| K          | 0.114  |       | 2.90 |       |      |
| L          | 0.055  | 0.067 | 1.40 | 1.70  |      |
| M          | 0.063  |       | 1.60 |       |      |
| O          | 0.043  | 0.051 | 1.10 | 1.30  |      |
| Q          | 0.000  | 0.012 | 0.00 | 0.30  |      |
| V          | 0.211  |       | 5.35 |       |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

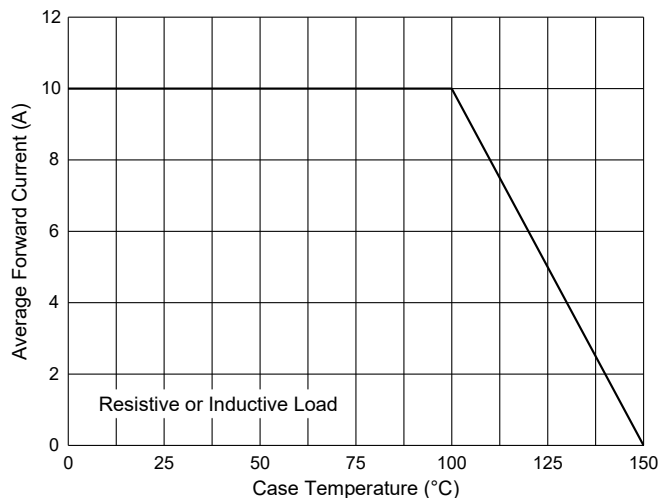


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

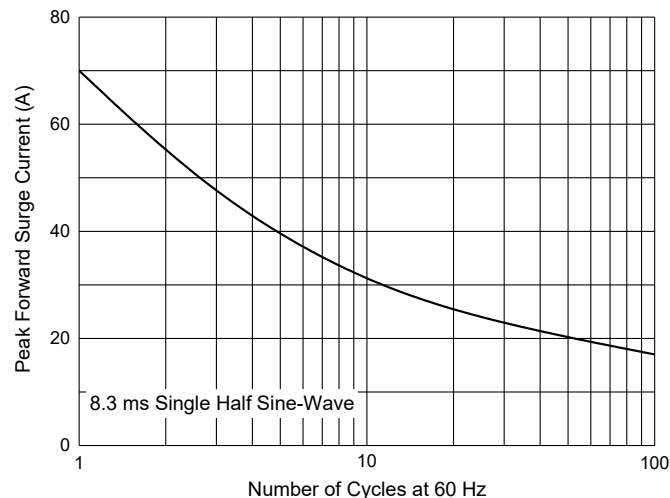


Fig. 3 - Typical Instantaneous Forward Characteristics

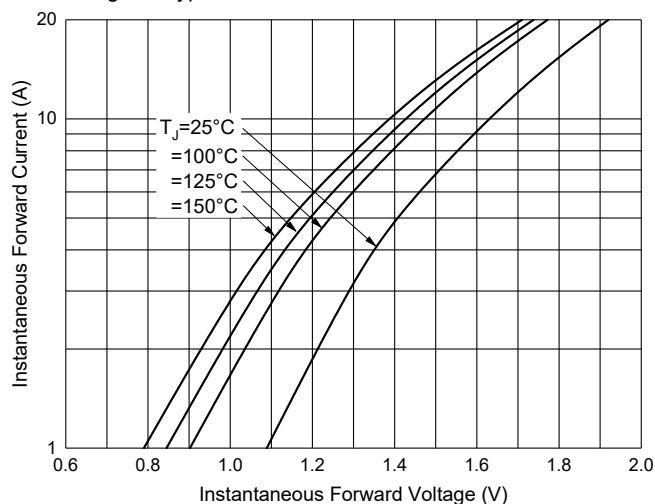
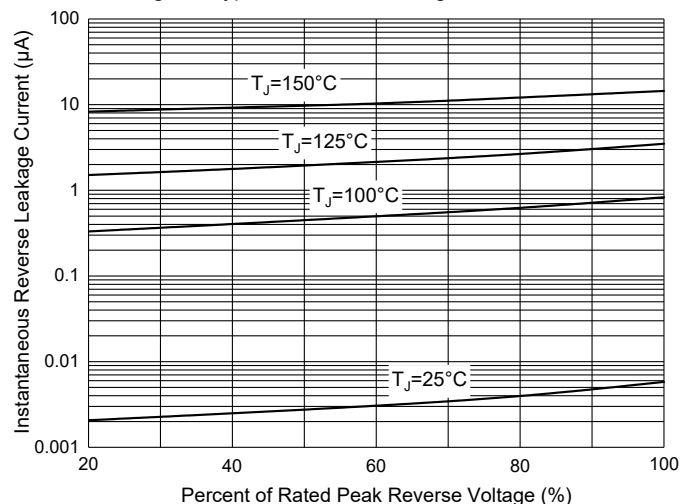


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing                 |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

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