

**Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Super Fast Switching For High Efficiency
- Low Reverse Leakage
- High Forward Surge Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

**Maximum Ratings**

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

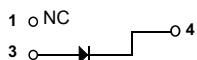
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURD820         | MURD820        | 200V                                   | 140V                | 200V                        |

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

|   |             |  |   |
|---|-------------|--|---|
| Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle | $I_{F(AV)}$ | 8.0A                                   |   |
| Peak Forward Surge Current  | $I_{FSM}$   | 80A                                    | 8.3ms, Half Sine  |
| Maximum Instantaneous Forward Voltage   | $V_F$       | 0.95V(Typ)<br>1.05V(Max)<br>0.90V(Max) | $I_F=8A; T_J=25^\circ C$<br>$I_F=8A; T_J=25^\circ C$<br>$I_F=8A; T_J=150^\circ C$ |
| Maximum Reverse Current At Rated DC Blocking Voltage                            | $I_R$       | 0.01mA<br>0.1mA                        | $T_J=25^\circ C;$<br>$T_J=125^\circ C$  |
| Maximum Reverse Recovery Time   | $t_{rr}$    | 25ns                                   | $I_F=0.5A; I_R=1.0A;$<br>$I_{RR}=0.25A$   |

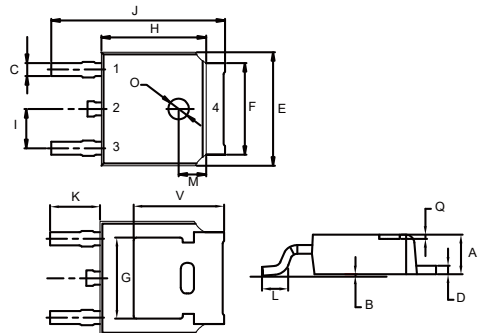
Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

**Internal Structure**



**8 Amp Super Fast Rectifiers  
200 Volts**

**DPAK(TO-252)**



| DIM | DIMENSIONS |       |      |       | NOTE |
|-----|------------|-------|------|-------|------|
|     | INCHES     |       | MM   |       |      |
|     | 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 - Typical Instantaneous Forward Characteristics

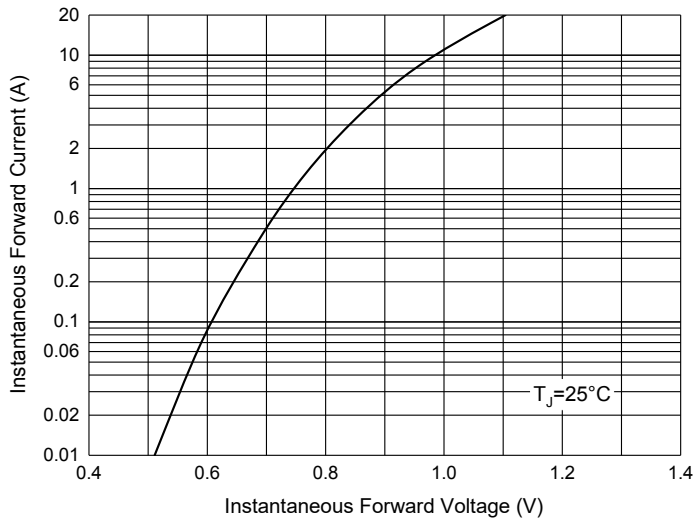
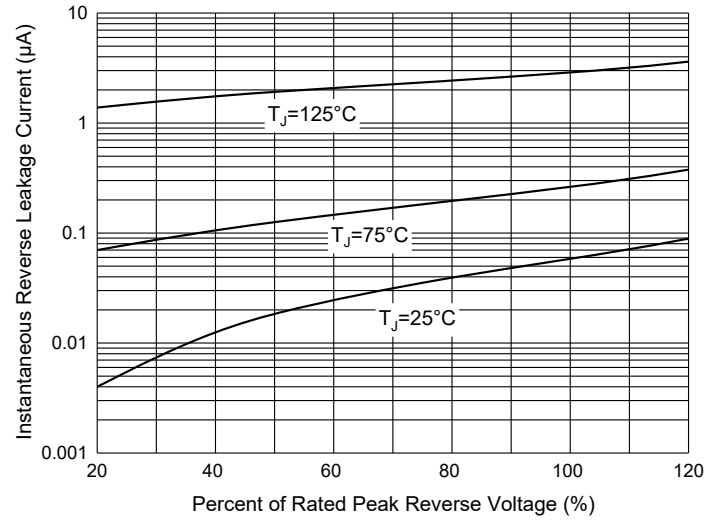


Fig. 2 - Typical Reverse Leakage Characteristics



## Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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