

## Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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: 4°C/W Junction to Case

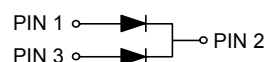
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MURS1020FCTA    | MURS1020FCTA   | 200V                                   | 140V                | 200V                        |

## Electrical Characteristics @ 25°C Unless Otherwise Specified

|  |             |                                       |   |
|--|-------------|---------------------------------------|---|
| Average Rectified Forward Current                    | $I_{F(AV)}$ | 10A                                   | $T_C = 110^\circ\text{C}$   |
| Peak Forward Surge Current                           | $I_{FSM}$   | 70A                                   | 8.3ms, Half Sine  |
| Instantaneous Forward Voltage                        | $V_F$       | 0.90V(Typ)<br>1.0V(Max)<br>0.85V(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                         | $C_J$       | 40pF                                  | Measured at 1.0MHz, $V_R=4.0V$  |

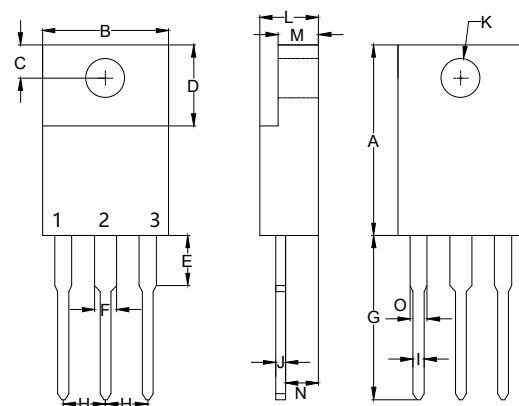
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

## Internal Structure



# 10 Amp FRED Rectifiers 200 Volts

## ITO-220AB



| DIMENSIONS |        |       |       |       |      |
|------------|--------|-------|-------|-------|------|
| DIM        | INCHES |       | MM    |       | NOTE |
|            | MIN    | MAX   | MIN   | MAX   |      |
| A          | 0.567  | 0.642 | 14.40 | 16.30 |      |
| B          | -----  | 0.421 | ----- | 10.70 |      |
| C          | 0.085  | 0.128 | 2.15  | 3.25  |      |
| D          | 0.248  | 0.272 | 6.30  | 6.90  |      |
| E          | -----  | 0.177 | ----- | 4.50  |      |
| F          | -----  | 0.071 | ----- | 1.80  |      |
| G          | 0.500  | 0.539 | 12.70 | 14.20 |      |
| H          | 0.100  |       | 2.55  |       |      |
| I          | -----  | 0.035 | ----- | 0.90  |      |
| J          | -----  | 0.032 | ----- | 0.80  |      |
| K          | 0.102  | 0.150 | 2.60  | 3.80  | Φ    |
| L          | -----  | 0.201 | ----- | 5.10  |      |
| M          | -----  | 0.140 | ----- | 3.56  |      |
| N          | 0.083  | 0.126 | 2.10  | 3.20  |      |
| O          | -----  | 0.071 | ----- | 1.80  |      |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

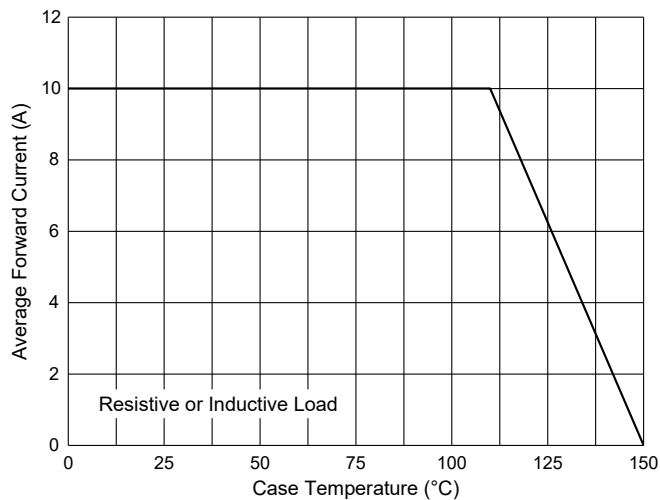


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

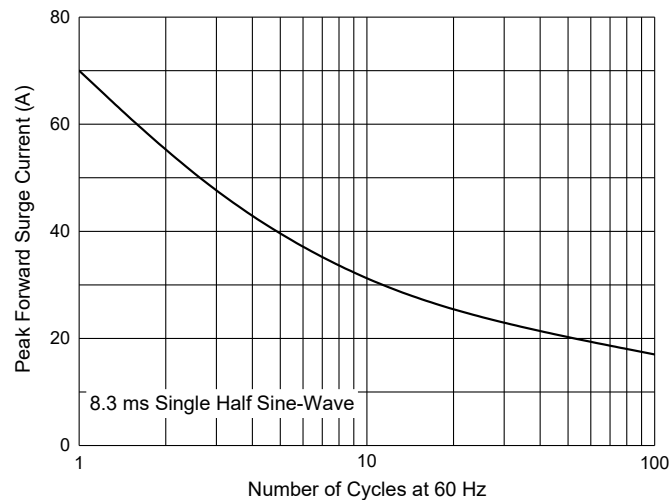


Fig. 3 - Typical Instantaneous Forward Characteristics

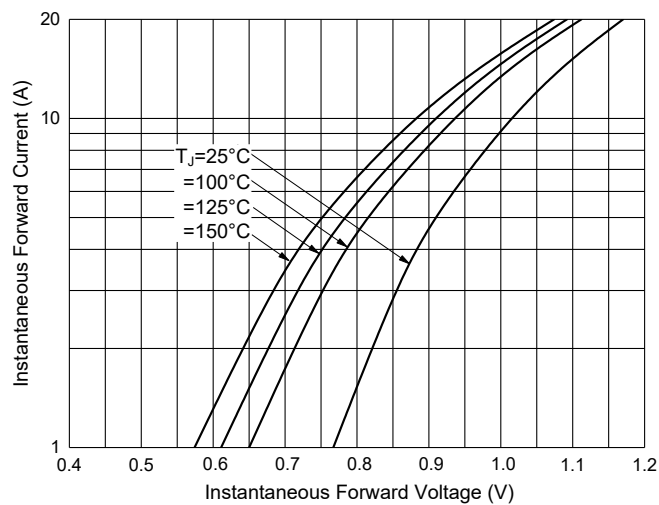
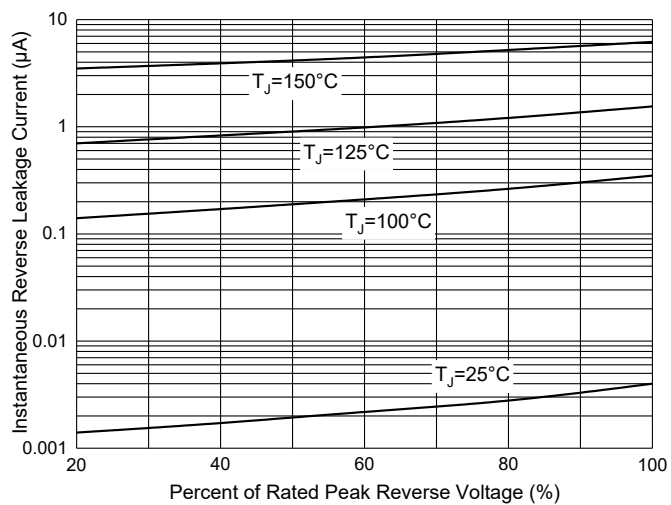


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

| Device         | Packing                                |
|----------------|--|
| Part Number-BP | Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton |

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

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