



# MUR1080

## Superfast Recovery Rectifiers

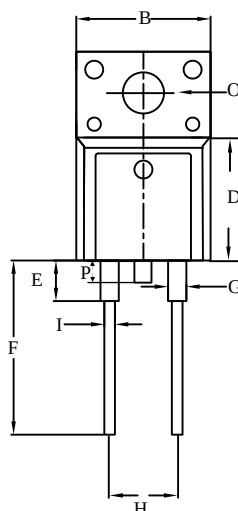
### FEATURES

- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High forward surge capability
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in comply with EU ROHS 2011/65/EU directives



### Mechanical Data

- **Case** ITO-220AC
- **Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity** : Cathode line denotes the cathode end
- **Mounting Position** : Any



### ITO-220AC

| ITO-220AC |       |       |
|-----------|-------|-------|
| DIM.      | MIN.  | MAX.  |
| A         | 14.90 | 15.90 |
| B         | 9.90  | 10.40 |
| C         | 6.20  | 6.95  |
| D         | 8.50  | 9.30  |
| E         | 2.50  | 3.50  |
| F         | 12.8  | —     |
| G         | 1.15  | 1.5   |
| H         | 4.90  | 5.20  |
| I         | 0.45  | 0.95  |
| J         | 0.40  | 0.65  |
| K         | 4.35  | 4.80  |
| L         | 2.45  | 2.85  |
| M         | 2.50  | 3.15  |
| O         | ∅3.00 | ∅3.50 |
| P         | 0.00  | 1.50  |

All Dimensions in millimeter

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

| CHARACTERISTICS                                                                                         | Symbols         | MUR1080     | UNIT          |
|---------------------------------------------------------------------------------------------------------|-----------------|-------------|---------------|
| Maximum Recurrent Peak Reverse Voltage                                                                  | $V_{RRM}$       | 800         | V             |
| Maximum RMS Bridge Input Voltage                                                                        | $V_{RMS}$       | 560         | V             |
| Maximum DC Blocking Voltage                                                                             | $V_{DC}$        | 800         | V             |
| Maximum Average Forward Rectified Current                                                               | $I_{(AV)}$      | 10          | A             |
| Peak Forward Surge Current<br>8.3ms Single Half Sine-Wave<br>Super Imposed on Rated Load (JEDEC Method) | $I_{FSM}$       | 160         | A             |
| Maximum Forward Voltage at 10A                                                                          | $V_F$           | 2.40        | V             |
| Maximum DC Reverse Current $T_A=25^{\circ}C$                                                            | $I_R$           | 1           | $\mu A$       |
| at Rated DC Blocking Voltage $T_A=125^{\circ}C$                                                         |                 | 300         |               |
| Maximum Reverse Recovery Time (Note1)                                                                   | TRR             | 35          | ns            |
| Typical Thermal Resistance                                                                              | $R_{\theta JC}$ | 4           | $^{\circ}C/W$ |
| Operating Temperature Range                                                                             | $T_J$           | -55 to +150 | $^{\circ}C$   |
| Storage Temperature Range                                                                               | $T_{STG}$       | -55 to +150 | $^{\circ}C$   |

NOTES: 1. Measured with  $I_F = 0.5 A$ ,  $I_R = 1 A$ ,  $I_{rr} = 0.25 A$





**Characteristic Curves** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

**Fig.1 Forward Current Derating Curve**

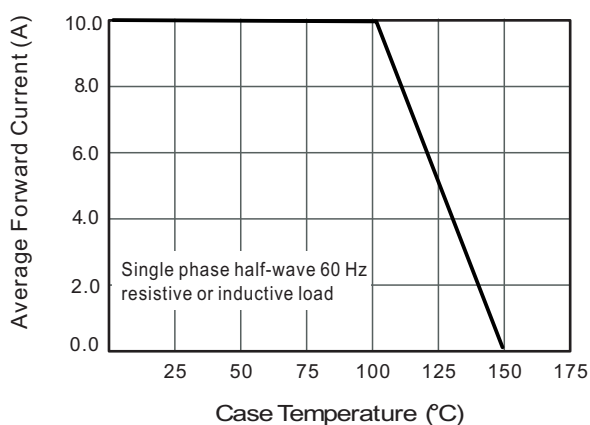


**Fig.2 Typical Reverse Characteristics**

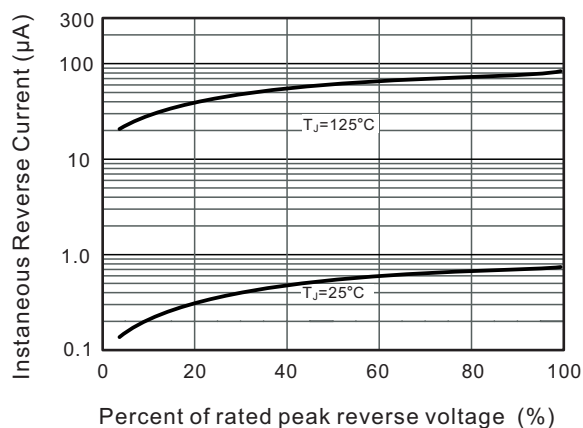


**Fig.3 Typical Forward Characteristics**

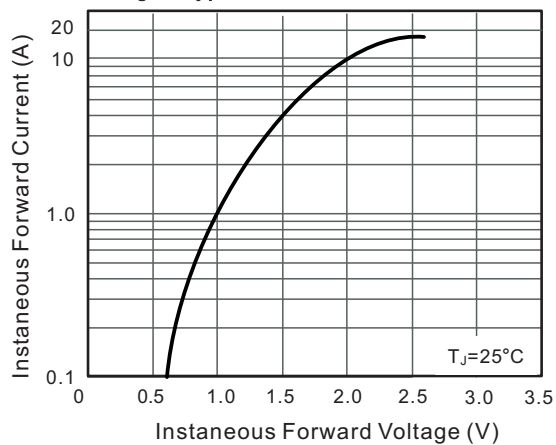


**Fig.4 Maximum Non-Repetitive Peak Forward Surge Current**

