

**Fast Recovery Epi Diodes**  
**Reverse Voltage – 600 Volts**  
**Forward Current – 10 Amperes**

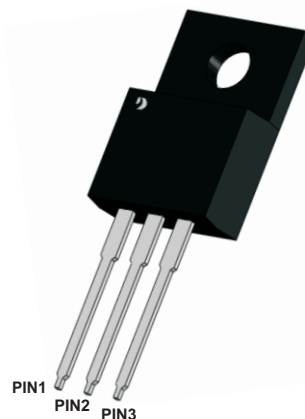
ITO-220ABW

**Features**

- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

**Mechanical data**

- Case: ITO-220ABW
- Approx. Weight: 2.1g ( 0.07oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.



  
 ROHS  
 COMPLIANT



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified

| PARAMETER   | Symbols         | MUR1060FD  | Units |
|---|-----------------|------------|-------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 600        | V     |
| Maximum RMS voltage   | $V_{RMS}$       | 420        | V     |
| Maximum DC blocking Voltage   | $V_{DC}$        | 600        | V     |
| Maximum Average Forward Rectified Current @Tc=100°C   | $I_{F(AV)}$     | 5<br>10    | A     |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$       | 50         | A     |
| Instantaneous forward voltage at 5A   | $V_F$           | 1.60       | V     |
| Maximum instantaneous reverse current at rated DC blocking voltage                                | $I_R$           | 10<br>100  | uA    |
| Maximum Reverse Recovery Time NOTE 1  | trr             | 35         | ns    |
| Maximum Thermal Resistance Junction To Case   | $R_{\theta JC}$ | 4          | °C/W  |
| Operation Junction Temperature and Storage Temperature  | $T_j, T_{stg}$  | -55 ~ +150 | °C    |

NOTE 1: Reverse recovery test conditions  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$



Fig.1 TYPICAL FORWARD CURRENT DERATING CURVE

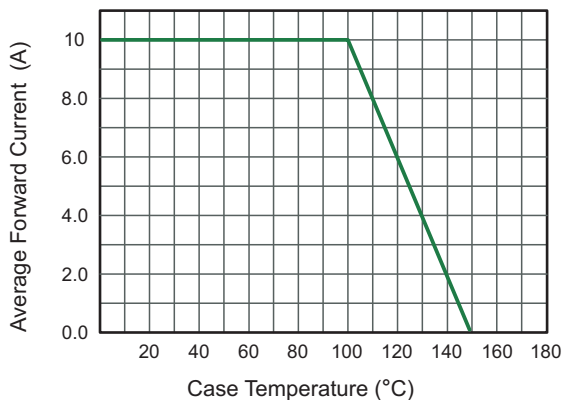


Fig.2 Typical Reverse Characteristics

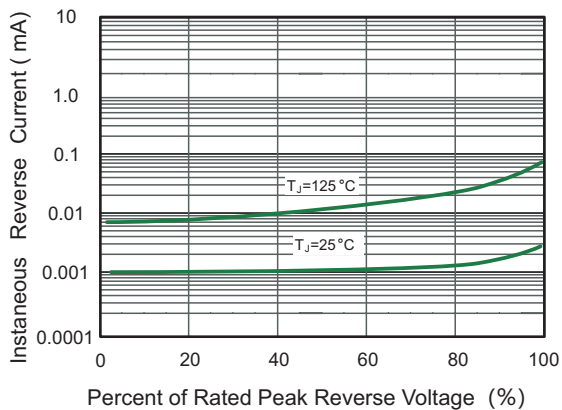


Fig.3 Typical Forward Characteristics

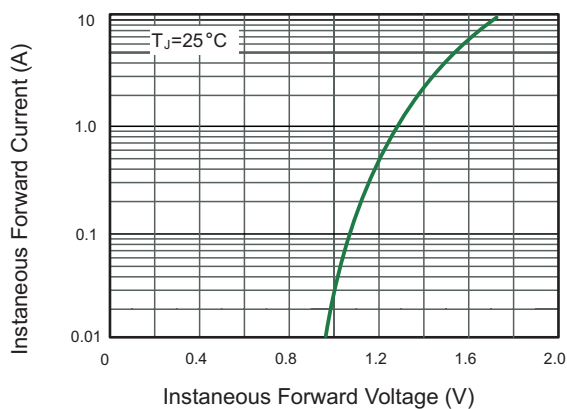
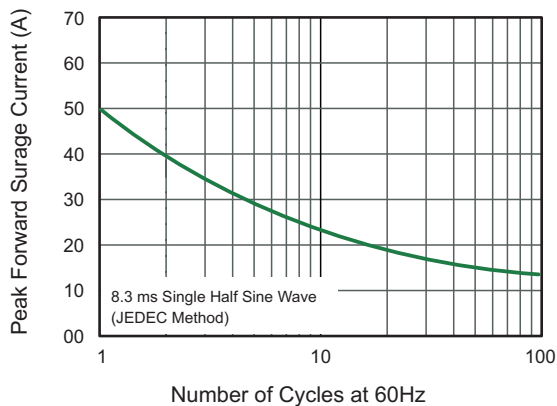


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

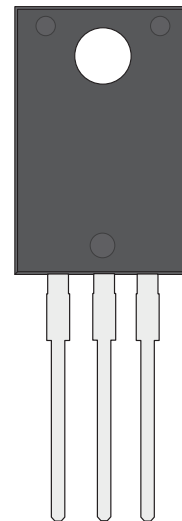
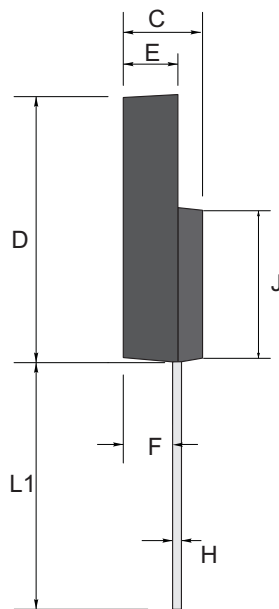
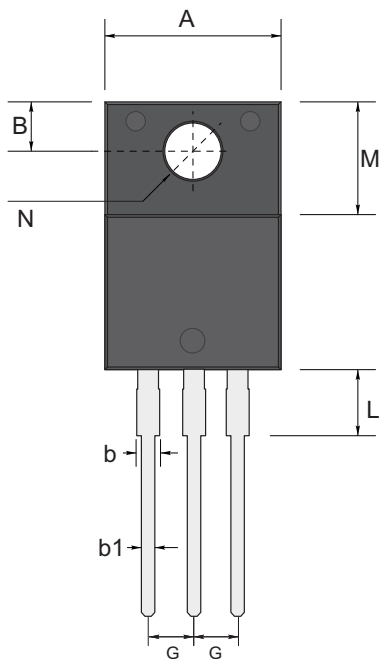




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

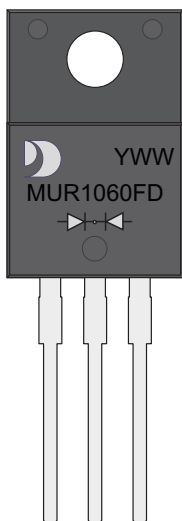
ITO-220ABW



ITO-220ABW mechanical data

| UNIT |     | A    | B    | b   | b1  | C   | D    | E   | F   | G               | H    | L   | L1   | M   | N              |
|------|-----|------|------|-----|-----|-----|------|-----|-----|-----------------|------|-----|------|-----|----------------|
| mm   | max | 10.5 | 2.85 | 1.4 | 0.8 | 4.7 | 16.0 | 2.9 | 2.8 | 2.54<br>TYPICAL | 0.70 | 2.9 | 14.3 | 7.0 | 3.4<br>TYPICAL |
|      | typ | 10.0 | 2.70 | 1.2 | 0.6 | 4.5 | 15.0 | 2.7 | 2.7 |                 | 0.55 | 2.5 | 13.5 | 6.8 |                |
|      | min | 9.85 | 2.54 | 1.1 | 0.5 | 4.4 | 14.7 | 2.5 | 2.5 |                 | 0.41 | 2.3 | 13.0 | 6.3 |                |
| mil  | max | 413  | 112  | 55  | 31  | 185 | 630  | 114 | 110 | 100<br>TYPICAL  | 27   | 114 | 563  | 276 | 133<br>TYPICAL |
|      | typ | 394  | 106  | 47  | 24  | 177 | 590  | 106 | 106 |                 | 22   | 98  | 531  | 267 |                |
|      | min | 388  | 100  | 43  | 20  | 173 | 580  | 98  | 98  |                 | 16   | 91  | 512  | 248 |                |

MARKING DIAGRAM



YWW: Date Code  
Y: Years(0~9)  
WW: Week  
MUR1060FD: Product name  
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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