



**Ultra-Fast Recovery EPI Rectifier Diodes**  
**Reverse Voltage - 600 Volts**  
**Forward Current - 50 Amperes**

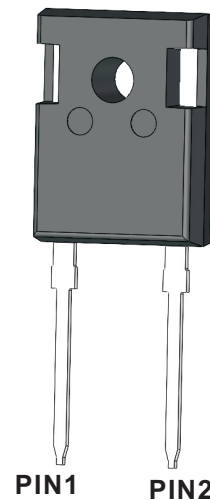
**Features**

- 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

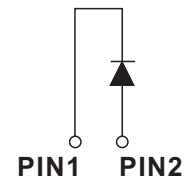
**Mechanical data**

- Case: TO-247-2L
- pprox. Weight: 6.0g ( 0.21oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.

**TO-247-2L**



**ROHS**  
COMPLIANT



**Maximum Ratings And Electrical Characteristics**

Ratings At 25°C Ambient Temperature Unless Otherwise Specified

| Characteristics   | Symble          | MUR5060W   | Units              |
|---|-----------------|------------|--------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 600        | V                  |
| Average Rectified Output Current @60Hz half sinewave, R-load, Tc(FIG.1)                                   | $I_O$           | 50         | A                  |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)          | $I_{FSM}$       | 600        | A                  |
| Max Instantaneous Forward Voltage at 50 A   | $V_F$           | 1.60       | V                  |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$ | $I_R$           | 10<br>500  | $\mu\text{A}$      |
| Typical Thermal Resistance  | $R_{\theta JC}$ | 0.4        | $^\circ\text{C/W}$ |
| Maximum Reverse Recovery Time (1)   | $t_{rr}$        | 55         | ns                 |
| Operating Junction Temperature Range  | $T_j$           | -55 ~ +175 | $^\circ\text{C}$   |
| Storage Temperature Range   | $T_{stg}$       | -55 ~ +175 | $^\circ\text{C}$   |

(1)  $I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$



Fig.1 Forward Current Derating Curve

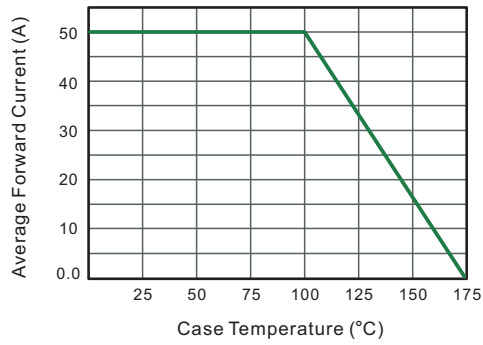


Fig.2 Typical Instantaneous Reverse Characteristics

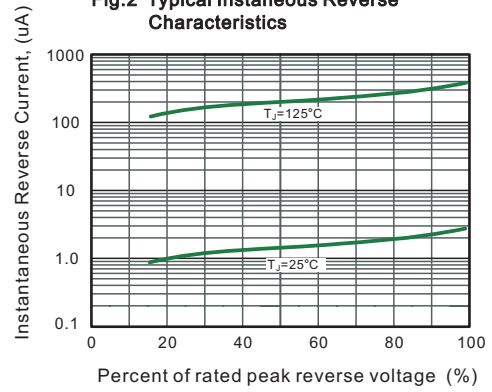


Fig.3 Typical Forward Characteristic

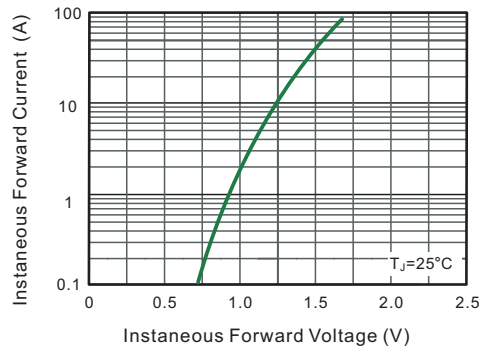
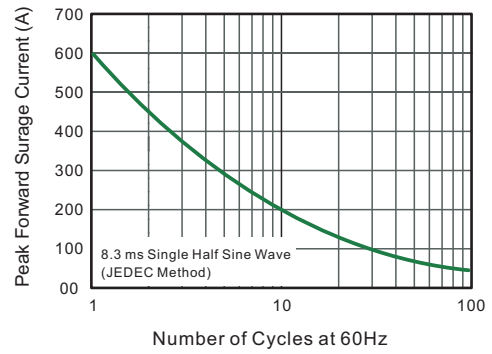


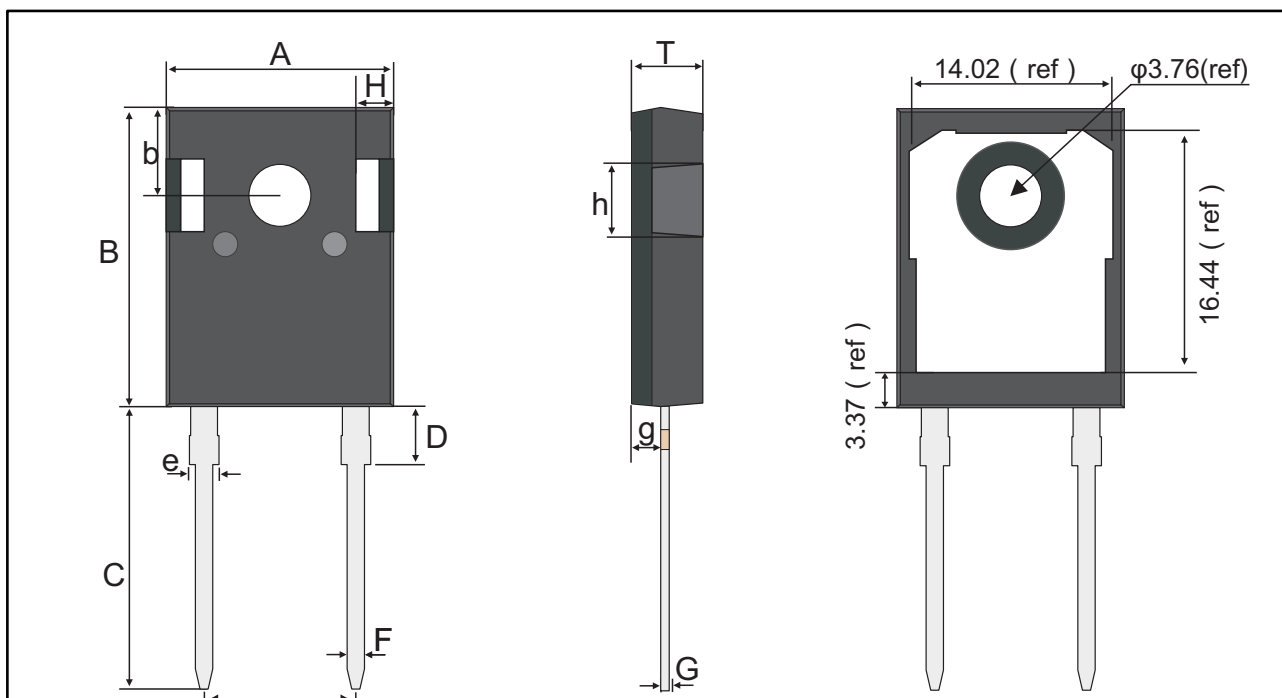
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package Outline  
Through hole Package ; 2 leads

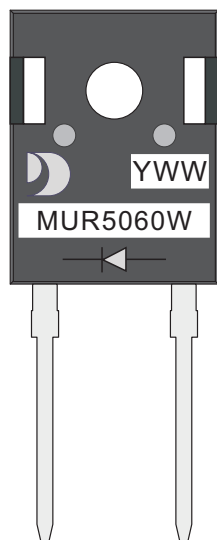
TO-247-2L



TO-247-2L mechanical data

| UNIT |     | A     | B     | b    | C    | D    | e    | F   | g    | G   | T   | a     | H    | h    |
|------|-----|-------|-------|------|------|------|------|-----|------|-----|-----|-------|------|------|
| mm   | max | 16.01 | 21.18 | 6.26 | 20.2 | 4.25 | 2.2  | 1.3 | 2.49 | 0.7 | 5.2 | 10.98 | 2.71 | 5.37 |
|      | typ | 15.81 | 20.98 | 6.16 | 20.0 | 4.15 | 2.05 | 1.2 | 2.39 | 0.6 | 5.0 | 10.88 | 2.51 | 5.17 |
|      | min | 15.61 | 20.78 | 6.06 | 19.8 | 4.05 | 1.9  | 1.1 | 2.29 | 0.5 | 4.8 | 10.78 | 2.31 | 4.97 |
| mil  | max | 630   | 834   | 246  | 795  | 167  | 87   | 51  | 98   | 28  | 205 | 432   | 107  | 211  |
|      | typ | 622   | 826   | 243  | 787  | 163  | 81   | 47  | 94   | 24  | 197 | 428   | 99   | 204  |
|      | min | 615   | 818   | 239  | 780  | 159  | 75   | 43  | 90   | 20  | 189 | 424   | 91   | 196  |

**Marking Diagram**



YWW: Date Code  
Y: Years(0~9)  
WW: Week  
MUR5060W: Product name  
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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