



**Fast Recovery Epi Diodes**  
**Reverse Voltage - 200~600 Volts**  
**Forward Current - 80 Amperes**

**TO-247-3L**

**Features**

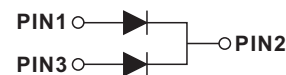
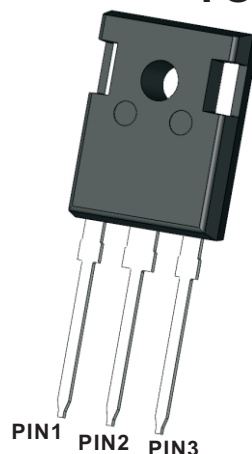
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

**Mechanical data**

- Case: TO-247-3L
- Approx. Weight: 6.3g ( 0.22oz)
- Lead free finish, RoHS compliant
- Case Material: “Green” molding compound, UL flammability classification 94V-0, “Halogen-free”.

**Maximum Ratings And Electrical Characteristics**

Ratings At 25°C Ambient Temperature Unless Otherwise Specified



Parameter	Symble	MUR8020WD	MUR8040WD	MUR8060WD	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	V
Maximum Average Forward Rectified Current Per leg Per device	$I_{F(AV)}$		40 80		A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	$I_{FSM}$	800	600		A
Max Instantaneous Forward Voltage at 40 A (Per leg)	$V_F$	1.2	1.6	1.8	V
Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 125^{\circ}C$	$I_R$		10 500		uA
Maximum Reverse Recovery Time <sup>(1)</sup>	$t_{rr}$		50	55	ns
Typical Thermal Resistance	$R_{\theta JC}$		0.8		°C/W
Operating Junction Temperature Range	$T_j$		-55 ~ +150		°C
Storage Temperature Range	$T_{stg}$		-55 ~ +150		°C

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



Fig.1 Forward Current Derating Curve

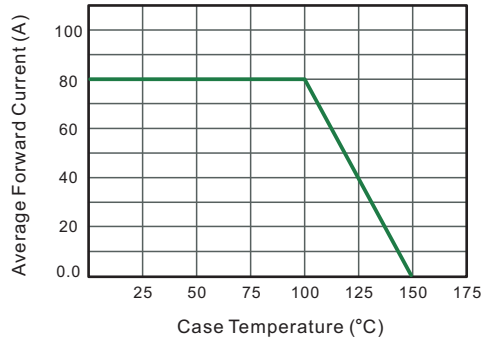


Fig.2 Typical Instantaneous Reverse Characteristics

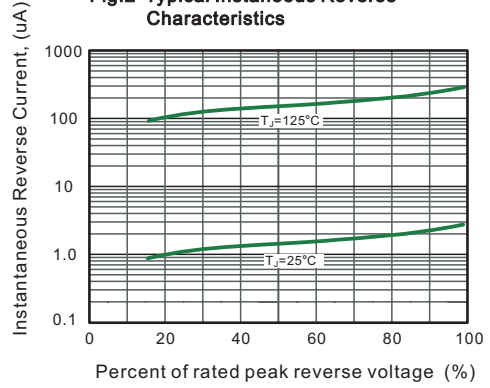


Fig.3 Typical Forward Characteristic

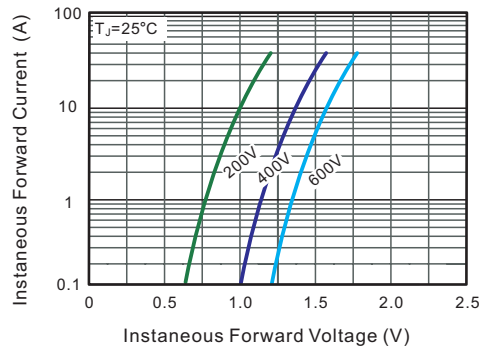
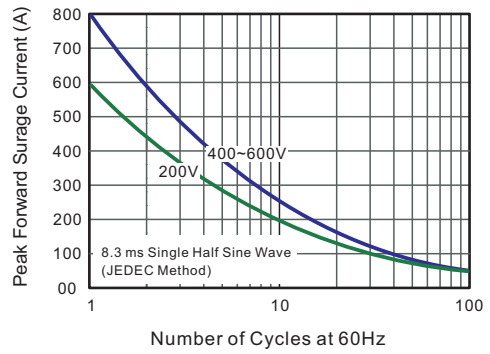


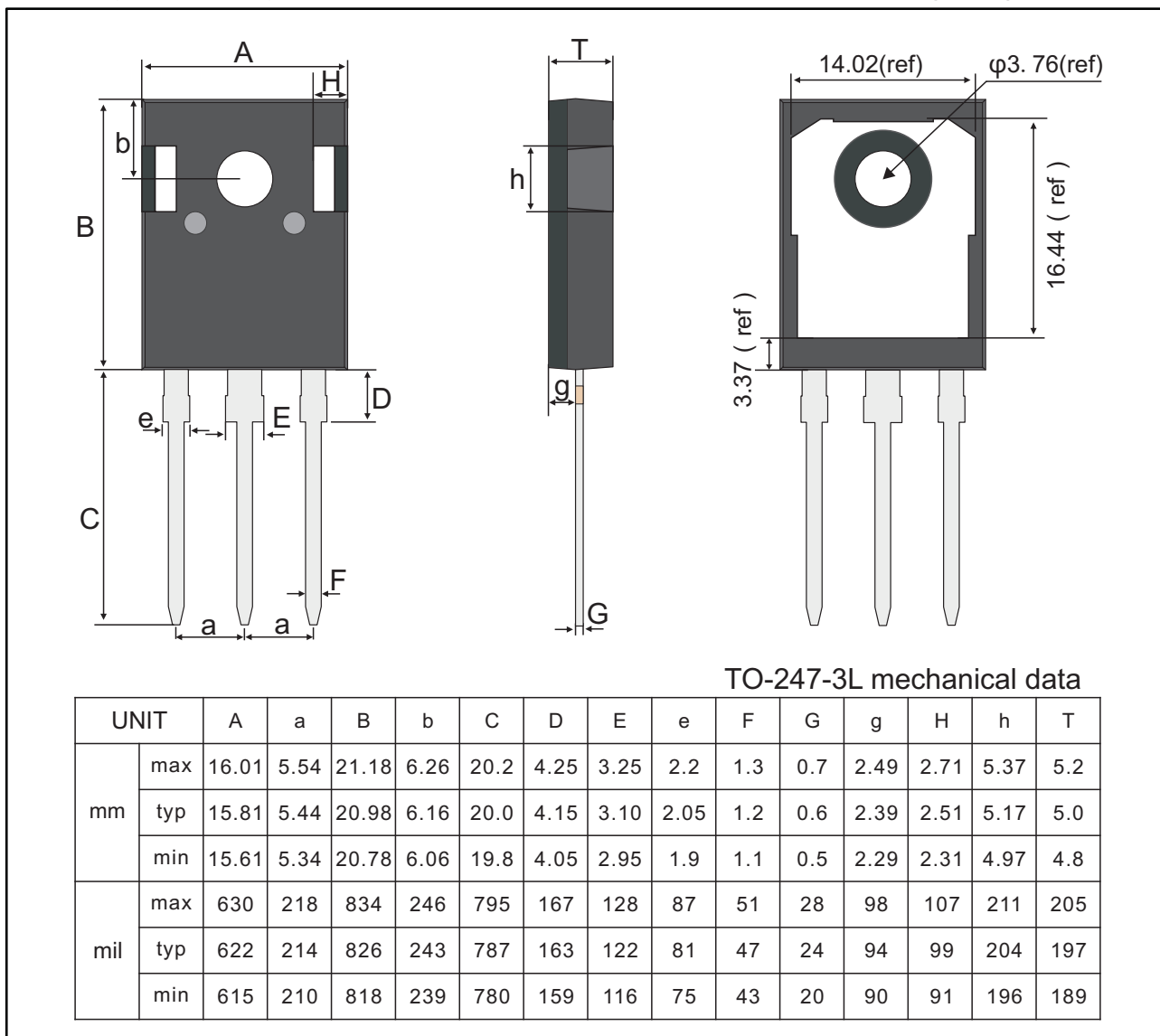
Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



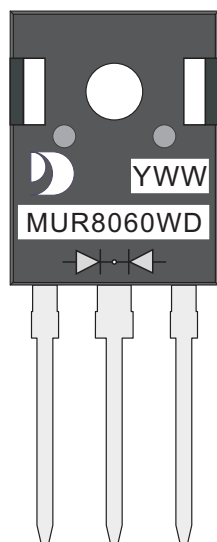


Package Outline  
Through Hole Package ; 3 leads

TO-247-3L



Marking Diagram



YWW: Date Code  
Y: Years(0~9)  
WW: Week  
MUR8060WD: Product name  
(NOTE: The weekly code is based on the actual number of weeks in the calendar year.)



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