



Fast Recovery Epi Diodes
Reverse Voltage - 650 Volts
Forward Current - 80 Amperes

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-247-2L
- pprox. Weight: 6.0g (0.21oz)
- 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	MURP8065W	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	650	V
Maximum RMS voltage	V_{RMS}	460	V
Maximum DC Blocking Voltage	V_{DC}	650	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	80	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)(Per leg)	I_{FSM}	750	A
Typical Thermal Resistance (P.C.B. mounted with 3.81X3.81cm copper pad areas.)	$R_{\theta JA}$ $R_{\theta JC}$	40 0.43	°C/W
Operating Junction Temperature Range	T_j	-55 ~ +175	°C
Storage Temperature Range	T_{stg}	-55 ~ +175	°C

Parameter	Symbols	Test Conditions	Min	Typ	Max	Units
Instantaneous forward voltage per leg	V_F	$I_F=80A, T_J=25^\circ C$		1.43	1.9	V
Reverse current per leg	I_R	$V_R=650V, T_J=25^\circ C$ $V_R=650V, T_J=150^\circ C$		0.5	30 5	uA mA
Maximum Reverse Recovery Time	trr	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$		70	90	ns
Maximum Reverse Recovery Time	trr	$I_F=1A, V_R=30V,$ $dI_F/dt=200A/us$		65		ns

TO-247-2L

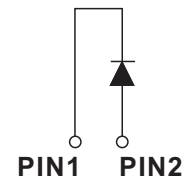
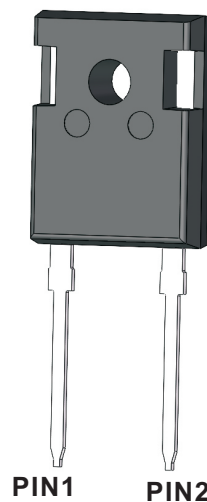
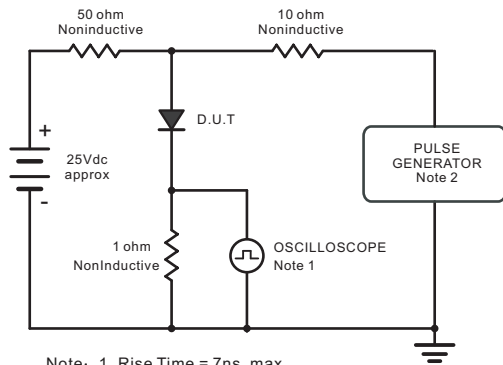
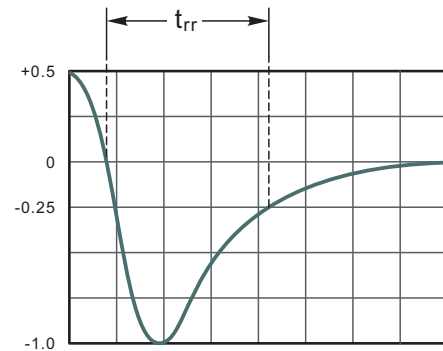




Fig.1 Reverse Recovery Time Characteristic And Test Circuit Diagram



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. Rises Time =10ns, max.
Source Impedance = 50 ohms.



10ns/div
Set time Base for 10ns/div

Fig.2 Forward Current Derating Curve

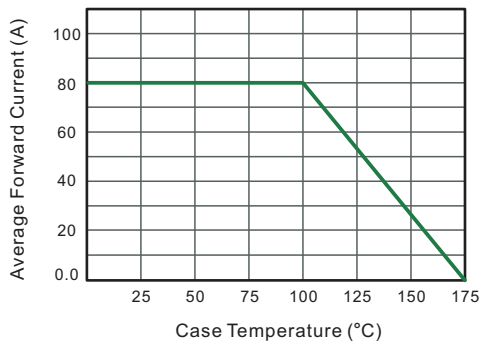


Fig.4 Typical Forward Characteristic

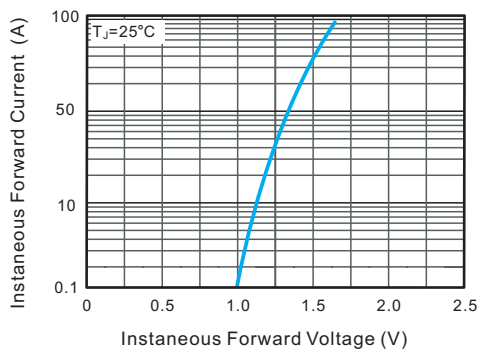


Fig.6 Max. Transient Thermal Impedance

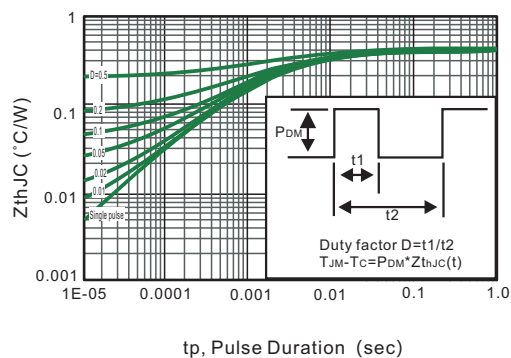


Fig.3 Typical Instaneous Reverse Characteristics

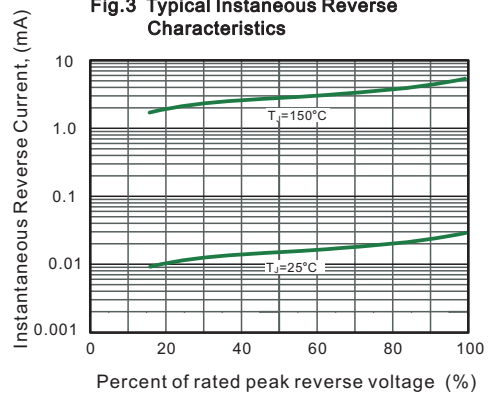


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

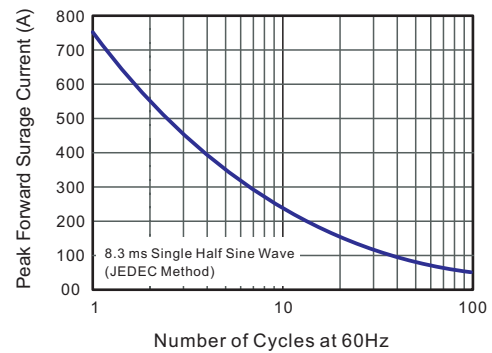
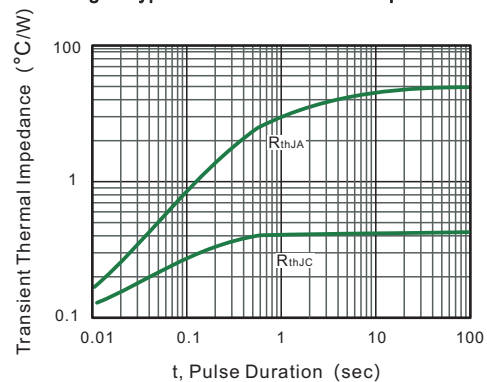


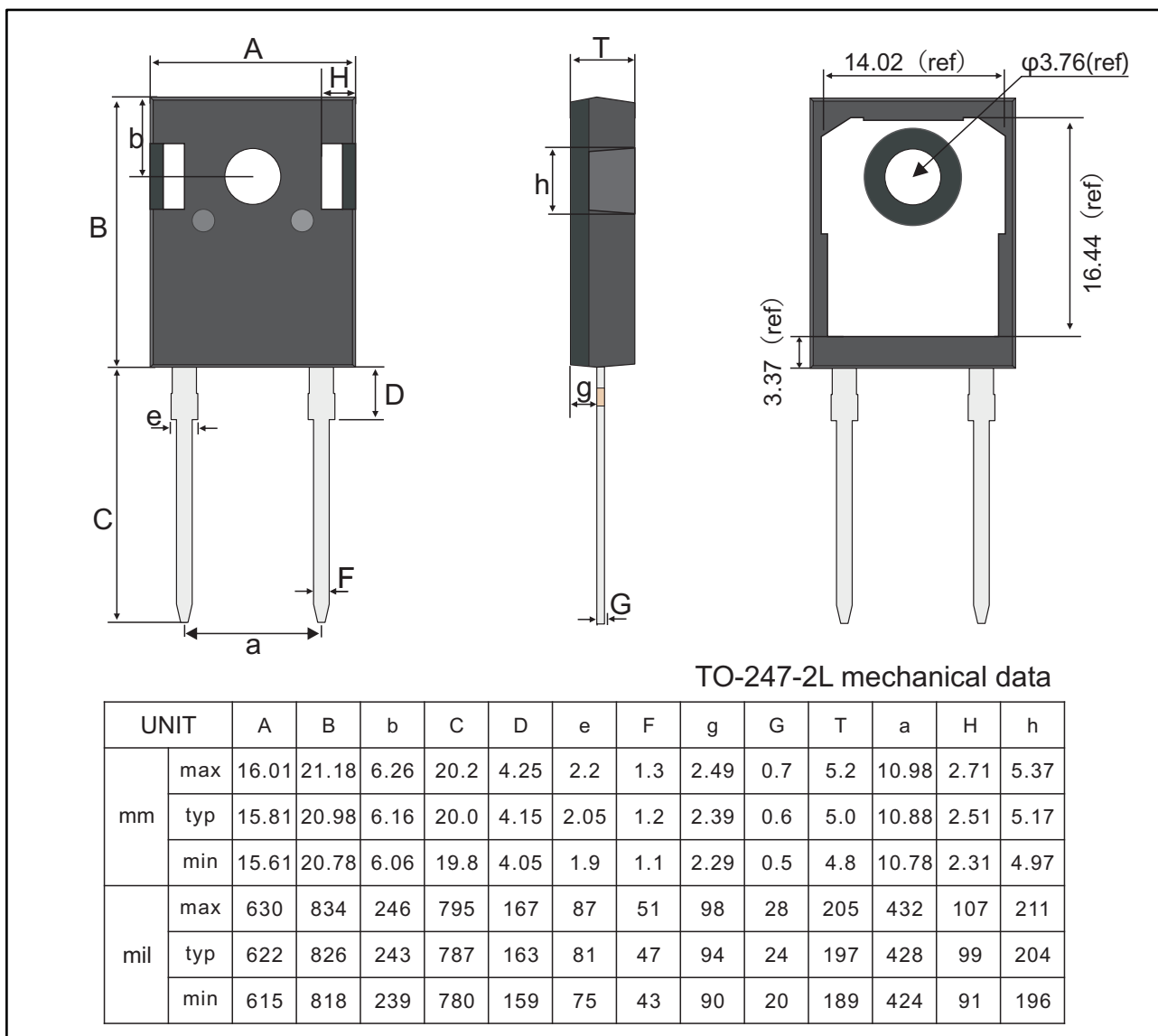
Fig.7 Typical Transient Thermal Impedance





Package Outline
Through hole Package ; 2 leads

TO-247-2L



Marking

Type number	Marking code
MURP8065W	MURP8065W



Important Notice and Disclaimer

Jingdao Microelectronics reserves the right to make changes to this document and its products and specifications at any without notice.

Customers should obtain and confirm the latest product information and specifications before final, purchase or use.

Jingdao Microelectronics makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does Jingdao Microelectronics assume any liability for application assistance or customer product design.

Jingdao Microelectronics does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Jingdao Microelectronics.

Jingdao Microelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of Jingdao Microelectronics.