

MURB1610CT / MURB1620CT

16A SURFACE MOUNT SUPER-FAST RECTIFIER

Features

- Glass Passivated Die Construction
- Diffused Junction
- Super-Fast Recovery Times for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 100A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

Case: Molded Plastic

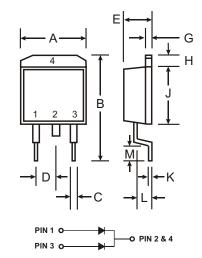
Terminals: Solderable per MIL-STD-202,

Method 208

Polarity: See Diagram

Weight: 1.7 grams (approx.)

Mounting Position: Any



D ² PAK				
Dim	Min	Max		
Α	9.65	10.69		
В	14.60	15.88		
C	0.51	1.14		
D	2.29	2.79		
Ε	4.37	4.83		
G	1.14	1.40		
Н	1.14	1.40		
J	8.25	9.25		
K	0.30	0.64		
L	2.03	2.92		
М	2.29	2.79		
All Dimensions in mm				

Maximum Ratings and Electrical Characteristics @ T_A = 25°C unless otherwise specified

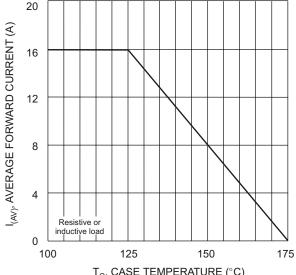
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic		MURB1610CT	MURB1620CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	100	200	V
RMS Reverse Voltage	V _{R(RMS)}	70	140	V
Average Rectified Output Current @ T _C = 125°C	Io	16		А
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		100		А
Forward Voltage @ I _F = 8.0A	V _{FM}	0.975		V
$ \begin{array}{lll} \mbox{Peak Reverse Current} & \mbox{@T}_{\mbox{A}} = 25^{\circ}\mbox{C} \\ \mbox{at Rated DC Blocking Voltage} & \mbox{@T}_{\mbox{A}} = 150^{\circ}\mbox{C} \\ \end{array} $		5.0 250		μА
Maximum Recovery Time (Note 2)	t _{rr}	2	5	ns
Typical Junction Capacitance (Note 3)		85		pF
Typical Thermal Resistance Junction to Case		1.5		°C/W
Operating and Storage Temperature Range		-65 to +150		°C

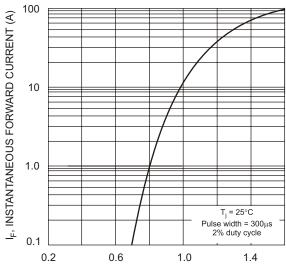
Notes:

- 1. Unit mounted on PC board with $5.0\ mm^2$ (0.013 mm thick) copper pad as heat sink.
- 2. Measured with $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$.
- 3. Measured at 1.0 MHz and Applied Reverse Voltage of 4.0V DC.

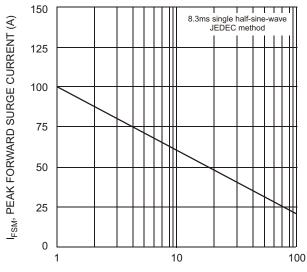




 T_C , CASE TEMPERATURE (°C) Fig. 1 Forward Current Derating Curve



 $\rm V_{\rm F}$, INSTANTANEOUS FORWARD VOLTAGE (V) Fig. 2 Typical Forward Characteristics per Element



NUMBER OF CYCLES AT 60Hz Fig. 3 Max Non-Repetitive Surge Current

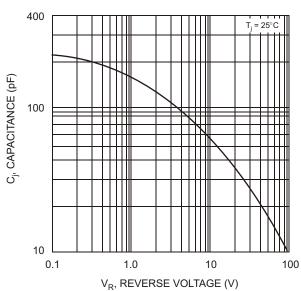
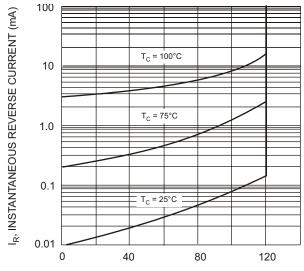


Fig. 4 Typical Junction Capacitance per Element



PERCENT OF RATED PEAK REVERSE VOLTAGE (%) Fig. 5 Typical Reverse Characteristics