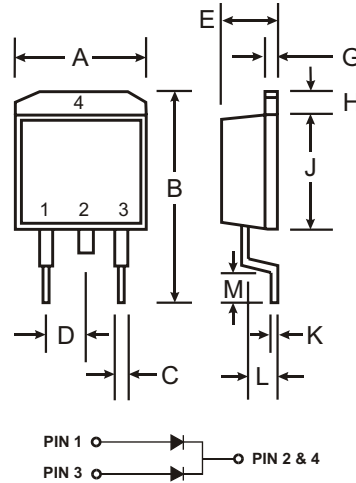


Features

- 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
- **Lead Free Finish, RoHS Compliant (Note 4)**

Mechanical Data

- Case: D²PAK
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish - Bright Tin. Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: See Page 3
- Weight: 1.7 grams (approximate)



D ² PAK		
Dim	Min	Max
A	9.65	10.69
B	14.60	15.88
C	0.51	1.14
D	2.29	2.79
E	4.37	4.83
G	1.14	1.40
H	1.14	1.40
J	8.25	9.25
K	0.30	0.64
L	2.03	2.92
M	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	Symbol	MURB1610CT	MURB1620CT	Unit
Peak Repetitive Reverse Voltage	V _{RRM}			
Working Peak Reverse Voltage	V _{RWM}	100	200	V
DC Blocking Voltage	V _R			
RMS Reverse Voltage	V _{R(RMS)}	70	140	V
Average Rectified Output Current @ T _C = 125°C	I _O	16		A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	100		A
Forward Voltage @ I _F = 8.0A	V _{FM}	0.975		V
Peak Reverse Current @ T _A = 25°C	I _{RM}	5.0		μA
at Rated DC Blocking Voltage @ T _A = 150°C		250		
Maximum Recovery Time (Note 2)	t _{rr}	30		ns
Typical Total Capacitance (Note 3)	C _T	85		pF
Typical Thermal Resistance Junction to Case	R _{θJC}	1.5		°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150		°C

- Notes:
1. Unit mounted on PC board with 5.0 mm² (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.
 4. RoHS revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied, see EU Directive Annex Notes 5 and 7.

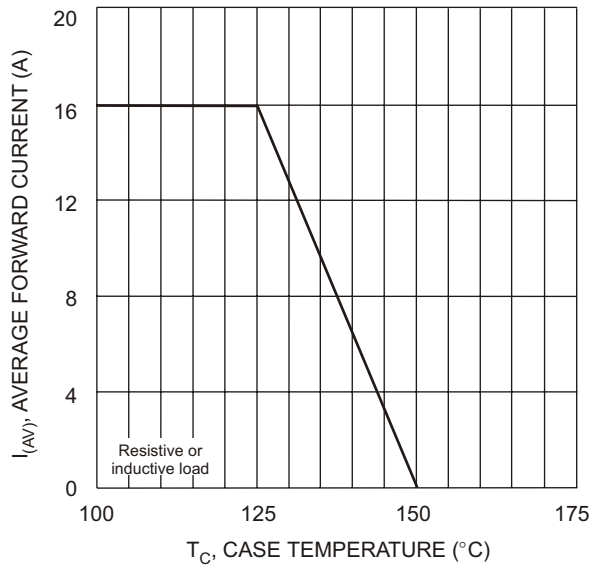


Fig. 1 Forward Current Derating Curve

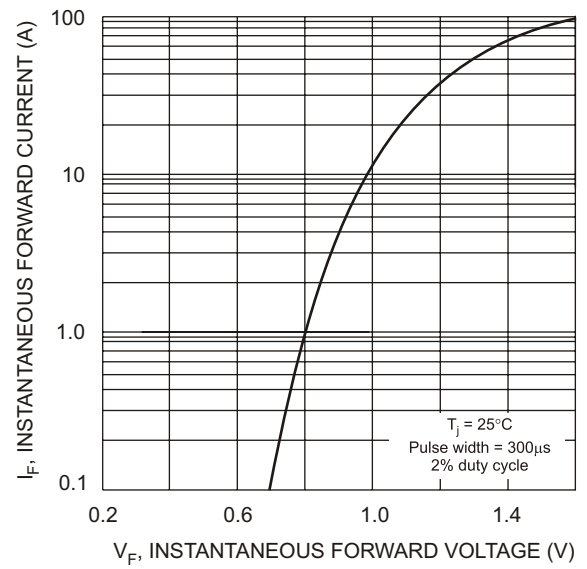


Fig. 2 Typical Forward Characteristics per Element

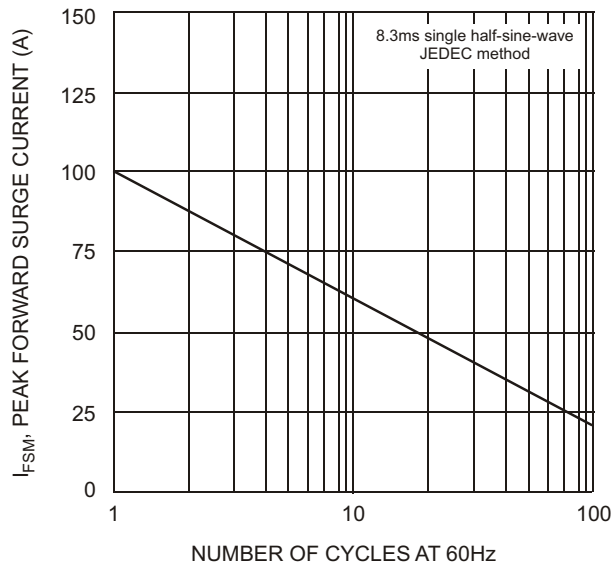


Fig. 3 Max Non-Repetitive Surge Current

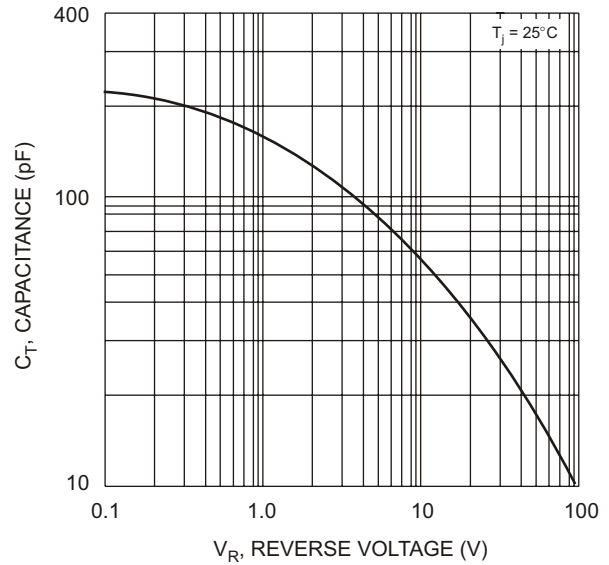


Fig. 4 Typical Total Capacitance per Element

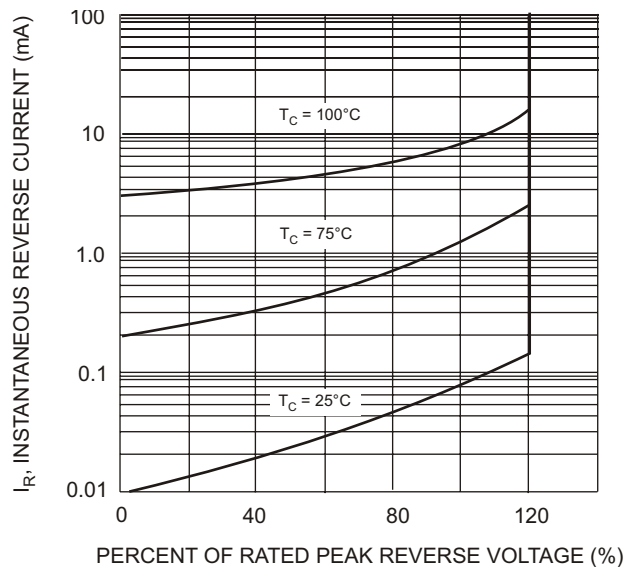
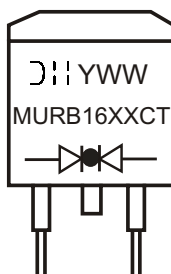


Fig. 5 Typical Reverse Characteristics

Ordering Information (Note 5)

Device	Packaging	Shipping
MURB1610CT-13	D ² PAK	800/Tape & Reel
MURB1620CT-13	D ² PAK	800/Tape & Reel

Notes: 5. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information

MURB16XXCT = Product type marking code

DII = Manufacturers' code marking

YWW = Date code marking

Y = Last digit of year ex: 2 for 2002

WW = Week code 01 to 52