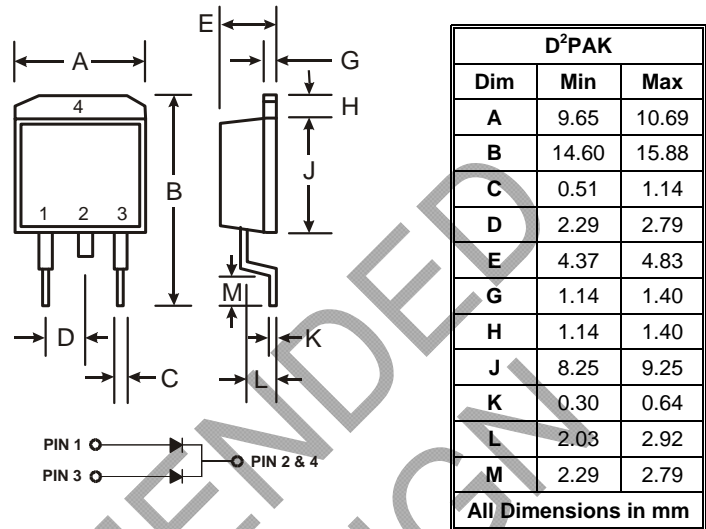


Features

- Glass Passivated Die Construction
- Super-Fast Recovery Times for High Efficiency
- Surge Overload Rating to 100A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 3)**

Mechanical Data

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

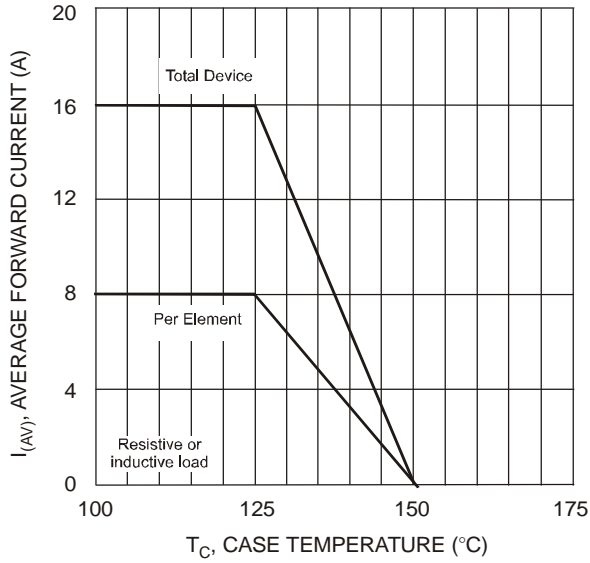


Maximum Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

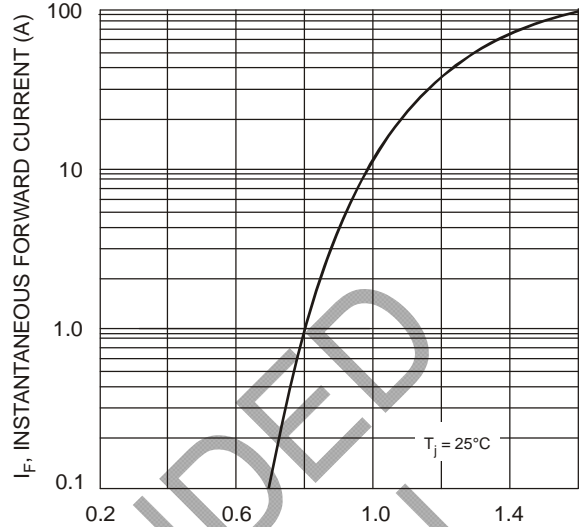
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	MURB1610CT	MURB1620CT	Unit
Peak Repetitive Reverse Voltage	V_{RRM}			
Working Peak Reverse Voltage	V_{RWM}	100	200	V
DC Blocking Voltage (Note 4)	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	I_{FSM}		100	A
Forward Voltage @ I _F = 8.0A	V_{FM}		0.975	V
Peak Reverse Current @ T _A = 25°C at Rated DC Blocking Voltage (Note 4)	I_{RM}		5.0 250	μA
Maximum Recovery Time (Note 1)	t_{rr}		30	ns
Typical Total Capacitance (Note 2)	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

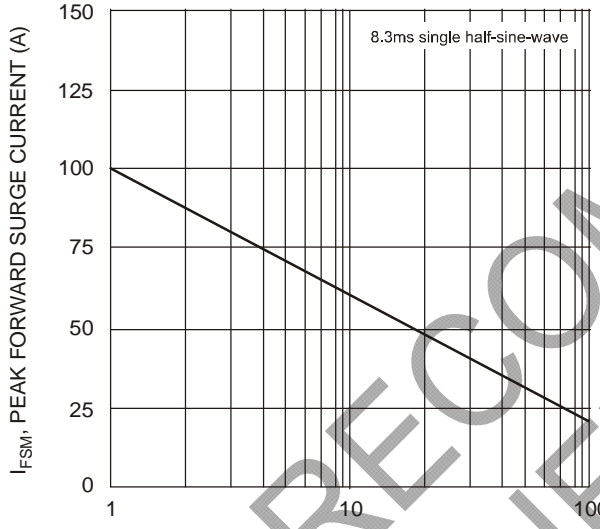
- Notes:
1. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A.
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.
 3. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see *EU Directive Annex Notes 5 and 7*.
 4. Short duration pulse test used to minimize self-heating effect.



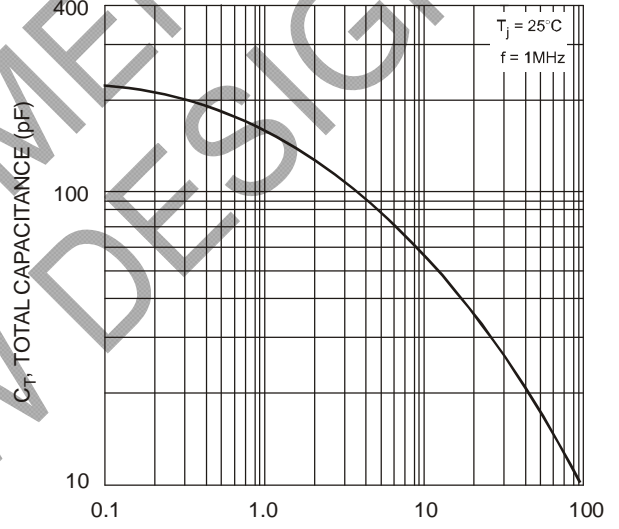
T_C , CASE TEMPERATURE ($^{\circ}C$)
Fig. 1 Forward Current Derating Curve



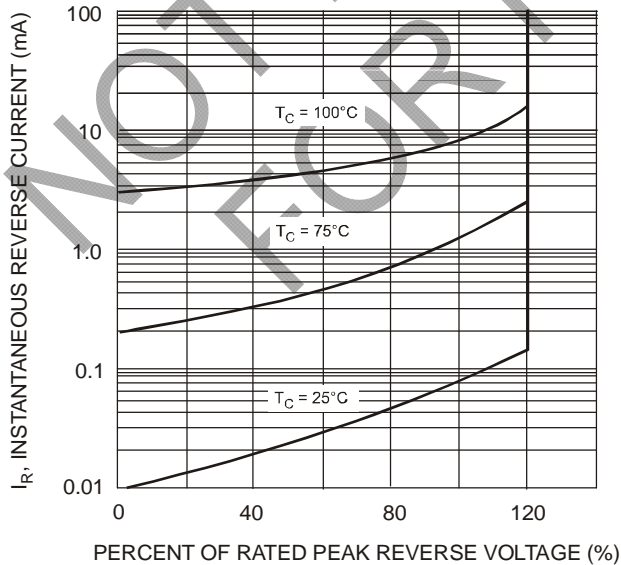
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics per Element



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



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Total Capacitance, per Element



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

Ordering Information (Note 5 & 6)

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

- Notes:
- For packaging details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
 - Unit mounted on PC board with 5.0 mm² (0.013 mm thick) copper pad as heat sink.

Marking Information



MURB16X0CT = Product type marking code eg: MURB1610CT
 J:: = Manufacturers' code marking
 YWW = Date code marking
 Y = Last digit of year ex: 2 for 2002
 WW = Week code 01 to 52

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