MURB1610CT / MURB1620CT

16A SURFACE MOUNT SUPER-FAST RECTIFIER

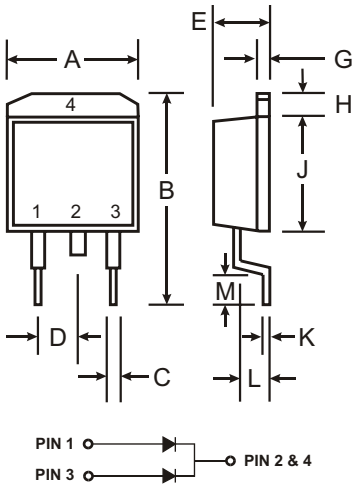
SPICE MODELS: MURB1610CT MURB1620CT

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



D²PAK		
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 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	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 at Rated DC Blocking Voltage @ T_A = 150°C	I_{RM}	5.0 250		μA
Maximum Recovery Time (Note 2)	t_{rr}	25		ns
Typical Junction Capacitance (Note 3)	C_j	85		pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	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.

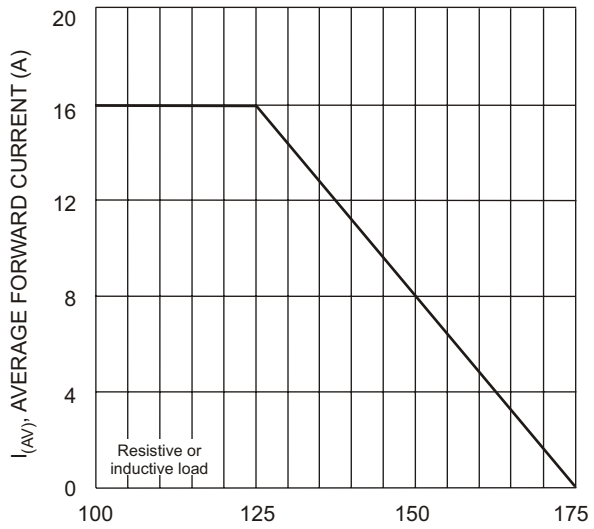


Fig. 1 Forward Current Derating Curve

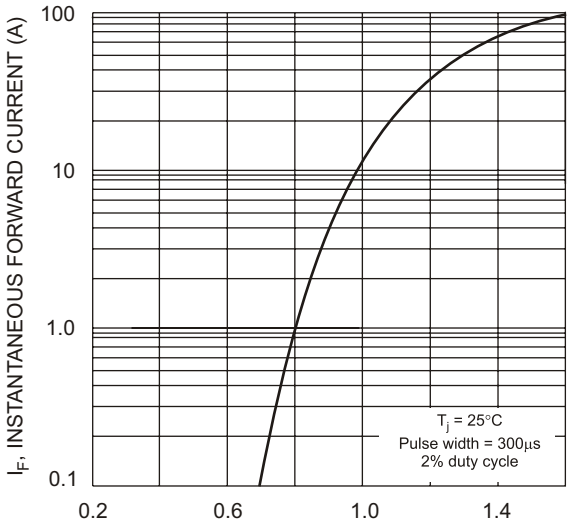


Fig. 2 Typical Forward Characteristics per Element

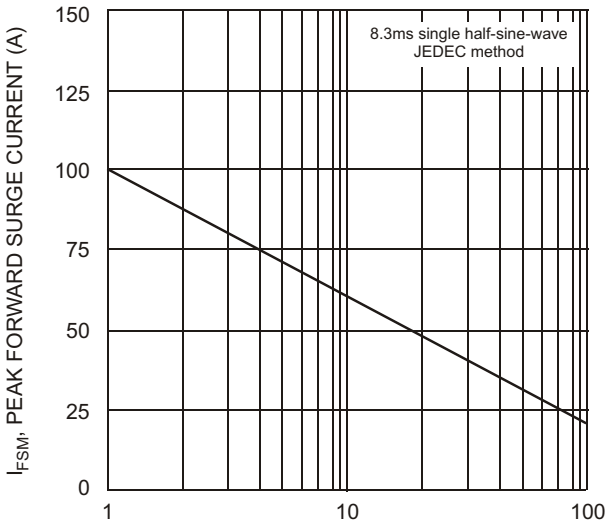


Fig. 3 Max Non-Repetitive Surge Current

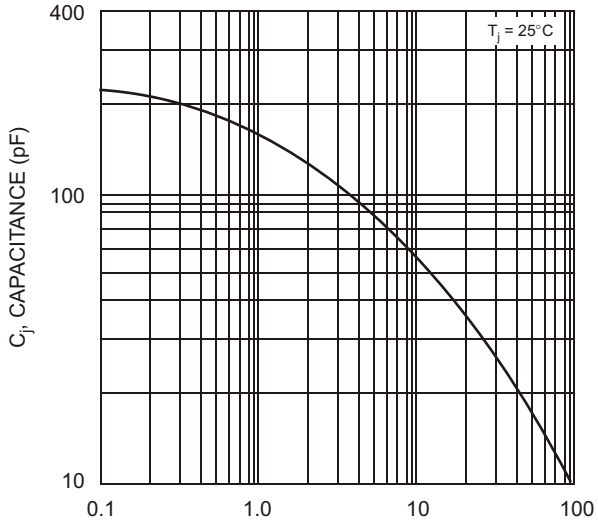


Fig. 4 Typical Junction Capacitance per Element

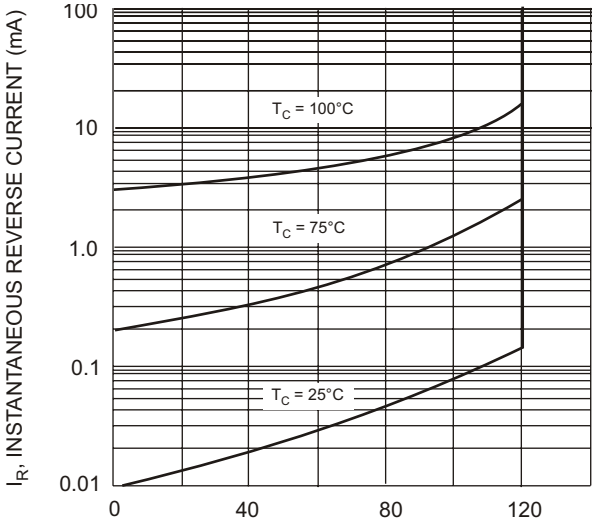


Fig. 5 Typical Reverse Characteristics