

**Pb Free Plating Product**

MURB2020CT/MURB2030CT/MURB2040CT/MURB2060CT



20.0 Ampere Surface Mount Dual Common Cathode Ultra Fast Recovery Rectifiers

**Features**

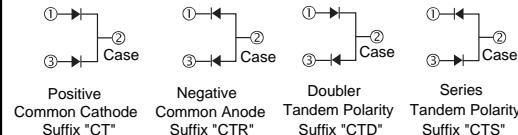
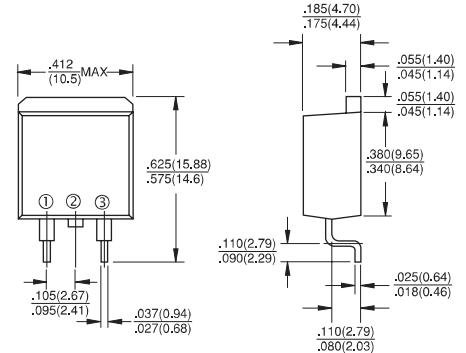
- ★ Latest GPP EPI P/G Technology
- ★ Good Soft Recovery Characteristics
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

**Applications**

- ★ Freewheeling, Snubber, Clamp
- ★ Inversion Welder
- ★ PFC
- ★ Plating Power Supply
- ★ Ultrasonic Cleaner and Welder
- ★ Converter & Chopper
- ★ UPS/LED SMPS/HID

D2PAK/TO-263

Unit : inch (mm)


**Maximum Ratings and Electrical Characteristics** @ $T_A=25^\circ\text{C}$  unless otherwise specified

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

Characteristic	Symbol	MURB2020CT	MURB2030CT	MURB2040CT	MURB2060CT	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	200	300	400	600	V
RMS Reverse Voltage	V <sub>R</sub> (RMS)	140	210	280	420	V
Average Rectified Output Current @ $T_C = 110^\circ\text{C}$	Total Device Per Diode	I <sub>o</sub>	20 10			A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>			175		A
Forward Voltage per diode @ $I_F = 10\text{ A}$	V <sub>FM</sub>	0.98		1.30	1.7	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_C = 25^\circ\text{C}$ @ $T_C = 100^\circ\text{C}$	I <sub>RM</sub>			5 50		μA
Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35		50		nS
Typical Junction Capacitance (Note 2)	C <sub>J</sub>		175		145	pF
Thermal Resistance Junction to Ambient per diode Thermal Resistance Junction to Case per diode	R <sub>JA</sub> R <sub>JC</sub>			30 1.5		°C/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>TSG</sub>			-55 to +150		°C

Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .  
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

RATINGS AND CHARACTERISTICS CURVES  
( $T_A=25^\circ\text{C}$  unless otherwise noted)

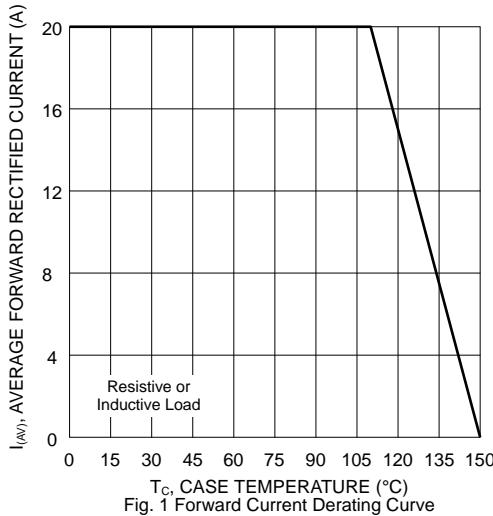


Fig. 1 Forward Current Derating Curve

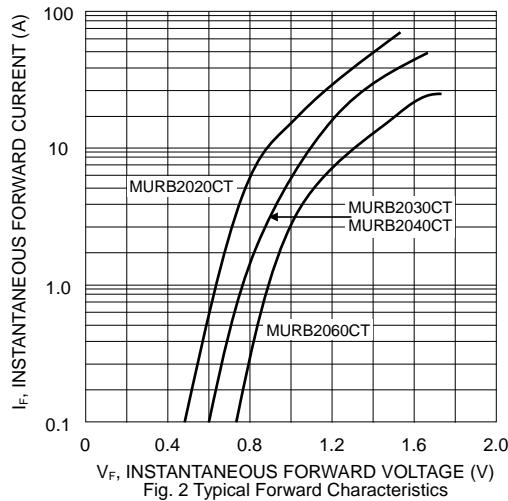


Fig. 2 Typical Forward Characteristics

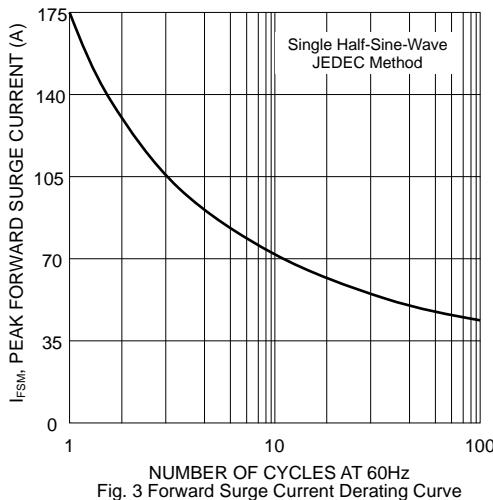


Fig. 3 Forward Surge Current Derating Curve

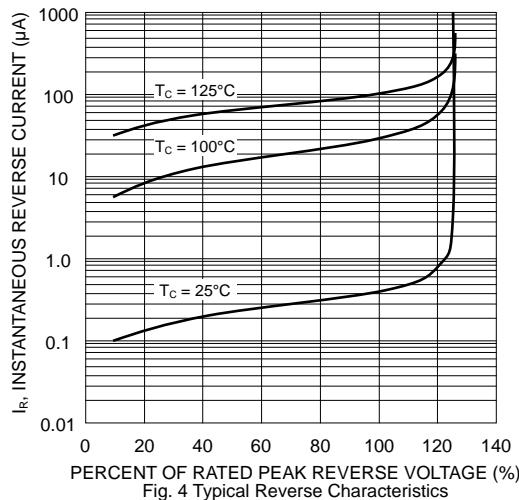


Fig. 4 Typical Reverse Characteristics

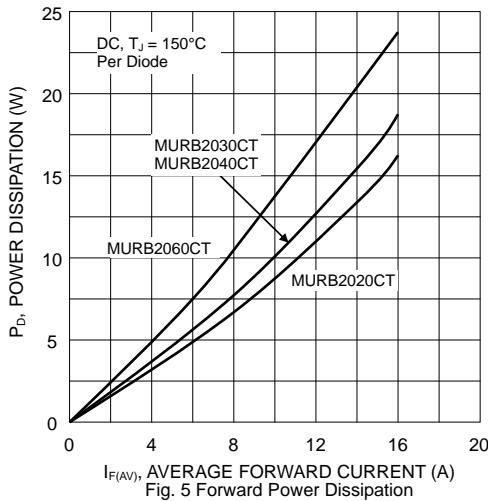


Fig. 5 Forward Power Dissipation

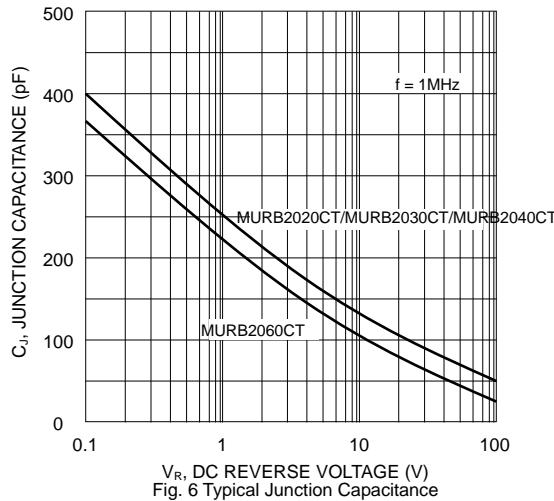


Fig. 6 Typical Junction Capacitance