

Pb Free Plating Product

MURB820CTR/MURB830CTR/MURB840CTR/MURB860CTR



8.0 Ampere Surface Mount Dual Common Anode Ultra Fast Recovery Rectifiers

Features

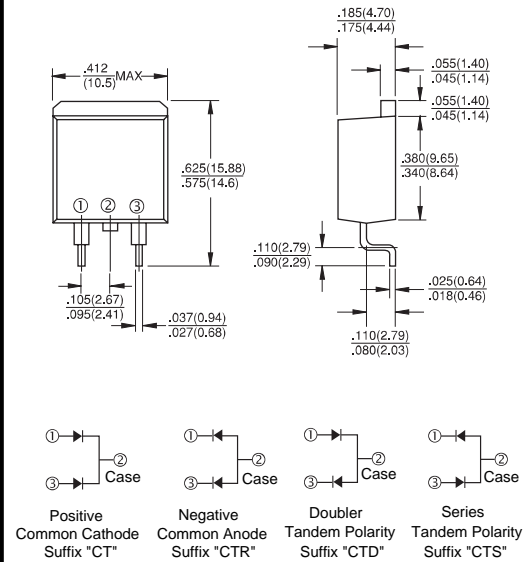
- ★ Latest GPP EPI P/G Technology
- ★ Good Soft Recovery Characteristics
- ★ Ideally Suited for Automatic Assembly
- ★ Low Forward Voltage
- ★ High Surge Current Capability
- ★ Low Leakage Current

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	MURB820CTR	MURB830CTR	MURB840CTR	MURB860CTR	Unit
Peak Repetitive Reverse Voltage	V_{RRM}					
Working Peak Reverse Voltage	V_{RWM}	200	300	400	600	V
DC Blocking Voltage	V_R					
RMS Reverse Voltage	$V_{R(RMS)}$	140	210	280	420	V
Average Rectified Output Current @ $T_C = 100^{\circ}\text{C}$	Total Device Per Diode I_O		8.0 4.0			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 per diode @ $I_F = 4.0\text{A}$	V_{FM}	0.98		1.3	1.7	V
Peak Reverse Current At Rated DC Blocking Voltage @ $T_C = 25^{\circ}\text{C}$ @ $T_C = 100^{\circ}\text{C}$	I_{RM}		5.0 100			μA
Reverse Recovery Time (Note 1)	t_{rr}	35		50		nS
Typical Junction Capacitance (Note 2)	C_J	70		50		pF
Thermal Resistance Junction to Ambient (Note 3)	R_{JA}		30			$^{\circ}\text{C/W}$
Thermal Resistance Junction to Lead (Note 3)	R_{JC}		1.5			
Operating and Storage Temperature Range	T_J, T_{STG}		-55 to +150			$^{\circ}\text{C}$

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 4.0 V DC.
 3. Mounted on PCB with minimum recommended pad sizes per diode.

RATINGS AND CHARACTERISTICS CURVES

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

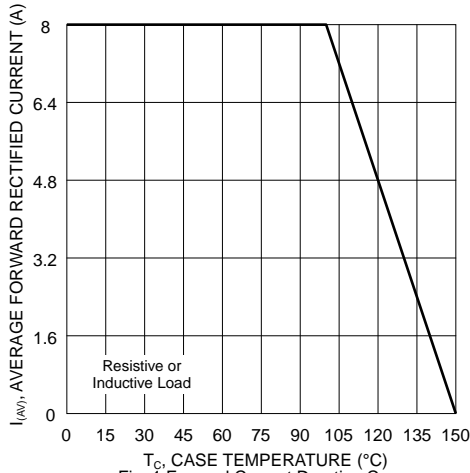


Fig. 1 Forward Current Derating Curve

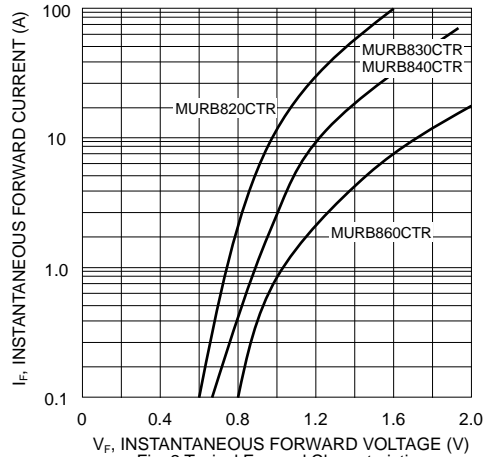


Fig. 2 Typical Forward Characteristics

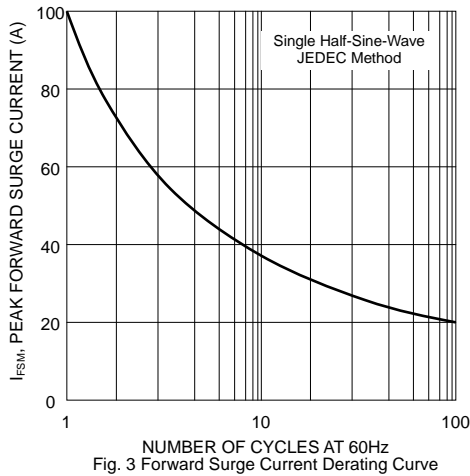


Fig. 3 Forward Surge Current Derating Curve

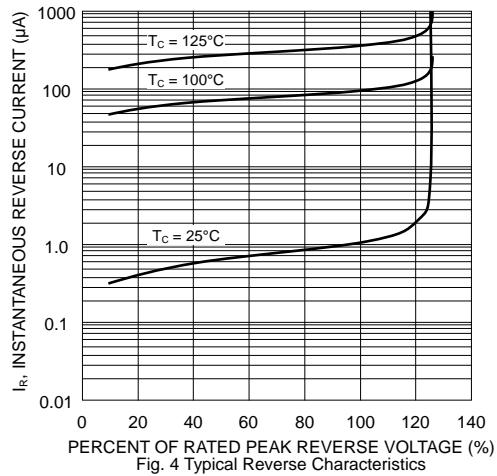


Fig. 4 Typical Reverse Characteristics

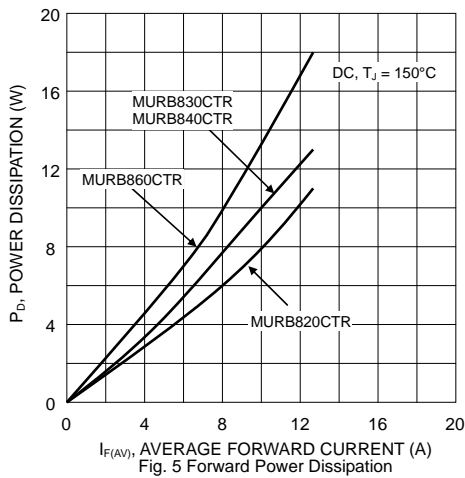


Fig. 5 Forward Power Dissipation

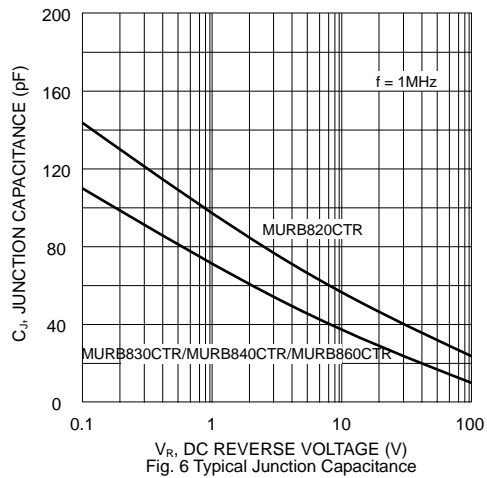


Fig. 6 Typical Junction Capacitance