

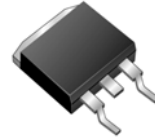


# MURB805CT thru MURB860CT

Glass Passivated Super Fast Rectifiers  
Reverse Voltage 50 to 600 Volts Forward Current 8.0 Amperes

## Features

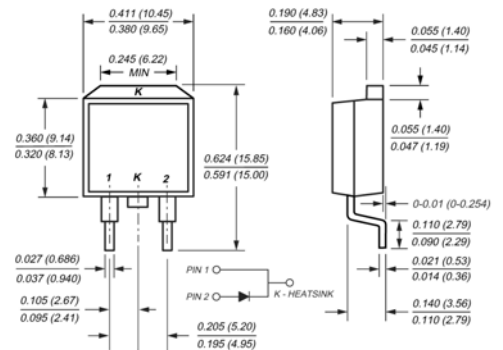
- ◆ High Current Capability
- ◆ Low Reverse Leakage
- ◆ Low Forward Voltage Drop
- ◆ High Current Capability
- ◆ Super Fast Switching Speed For High Efficiency



TO-263AB

## Mechanical Data

- ◆ Case: TO-220AB full molded plastic package
- ◆ Terminals: Lead solderable per MIL-STD-202, Method 208
- ◆ Polarity: As marked
- ◆ Standard packaging: Any
- ◆ Weight: 0.08 ounces, 2.24 grams



## Maximum Ratings and Electrical Characteristics

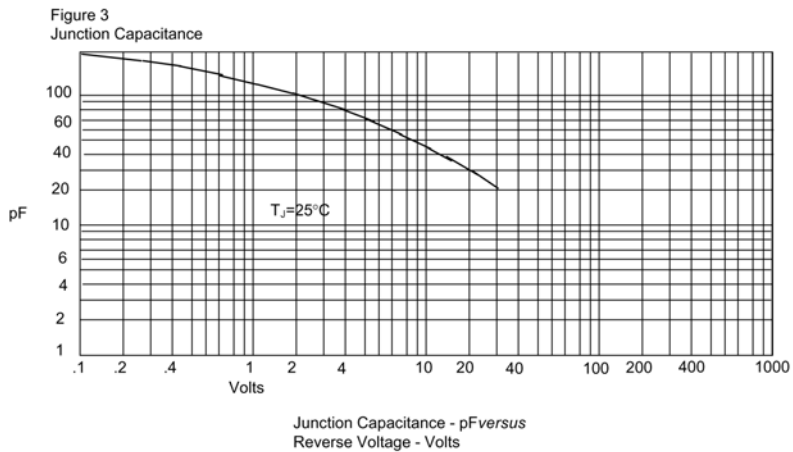
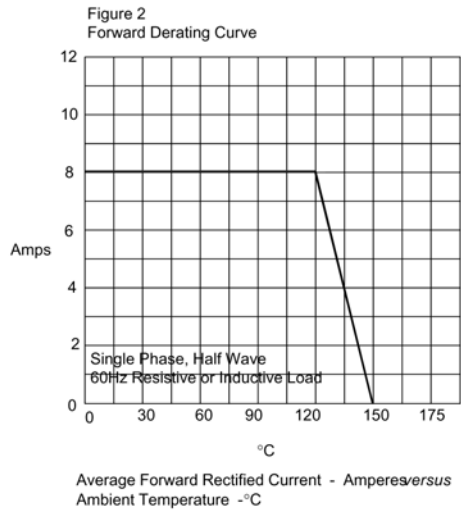
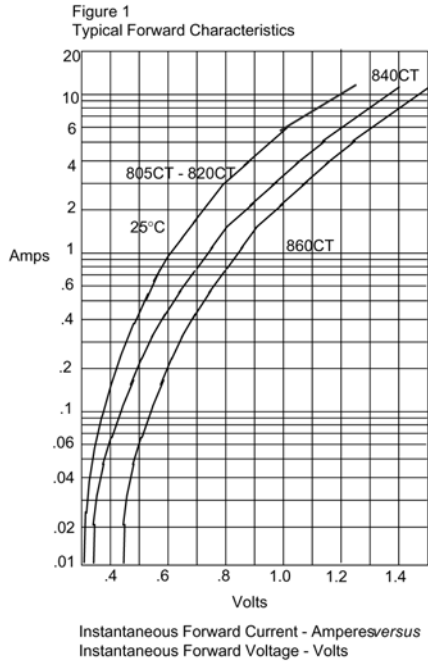
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MURB805CT	MURB810CT	MURB820CT	MURB840CT	MURB860CT	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	Volts
Maximum average forward rectified current at $T_C=120^\circ\text{C}$	$I_{F(AV)}$	8.0					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0					Amps
Maximum instantaneous forward voltage at 10.0A	$V_F$	1.25			1.5	1.75	Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	10.0 800					$\mu\text{A}$
Maximum reverse recovery time at $I_F=1.0\text{A}$ , $I_R=1.0\text{A}$ , $I_{RR}=0.25\text{A}$	$t_{rr}$	35			50	75	nS
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150					$^\circ\text{C}$

Notes: 1. Pulse test: Pulse width 300 usec, Duty cycle 2%

# RATINGS AND CHARACTERISTIC CURVES

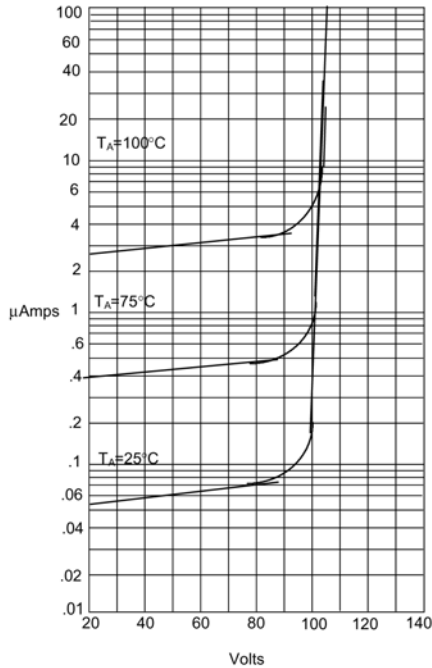
( $T_A = 25^\circ\text{C}$  unless otherwise noted)



# RATINGS AND CHARACTERISTIC CURVES

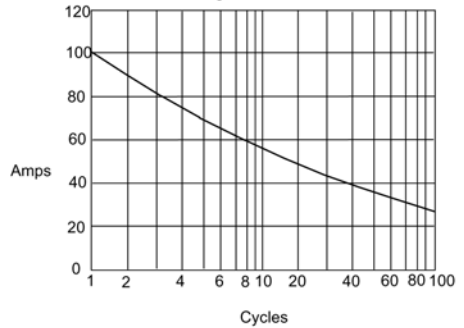
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Figure 4  
Typical Reverse Characteristics



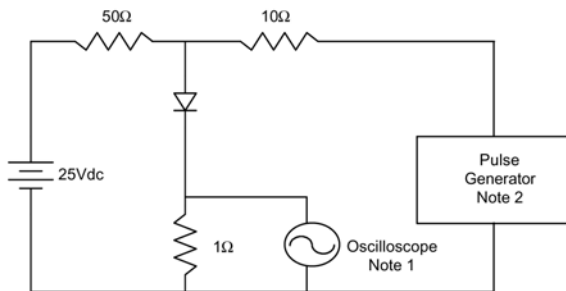
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

Figure 6  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive

