



# MURB805CT thru MURB860CT

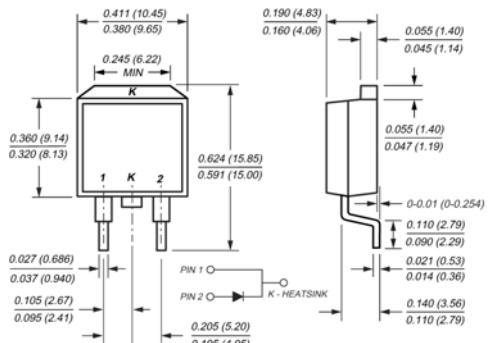
Glass Passivated Super Fast Rectifiers  
Reverse Voltage 50 to 600 Volts   Forward Current 8.0 Amperes

## 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.

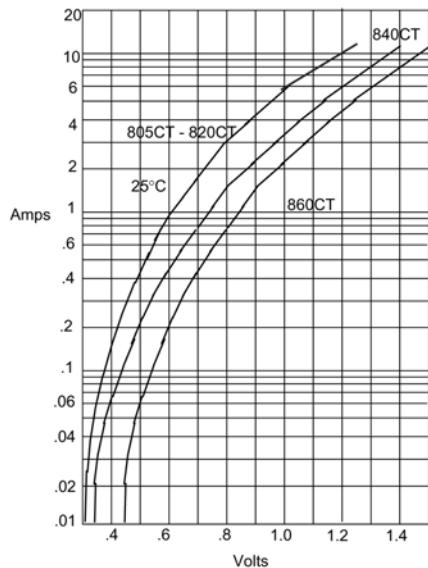
Parameter	Symbol	MURB805CT	MURB810CT	MURB820CT	MURB840CT	MURB860CT	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	Volts
Maximum average forward rectified current 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 @ $T_A=25^\circ\text{C}$ @ rated DC blocking voltage	$I_R$			10.0 800			uA
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			°C

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

## RATINGS AND CHARACTERISTIC CURVES

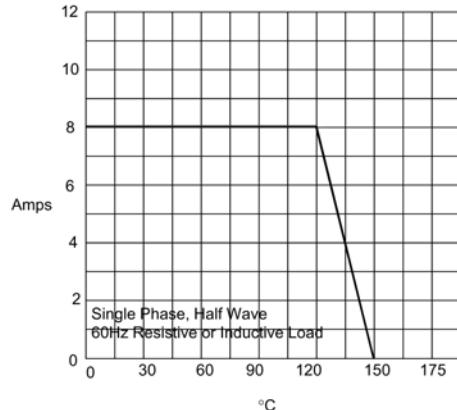
( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Figure 1  
Typical Forward Characteristics



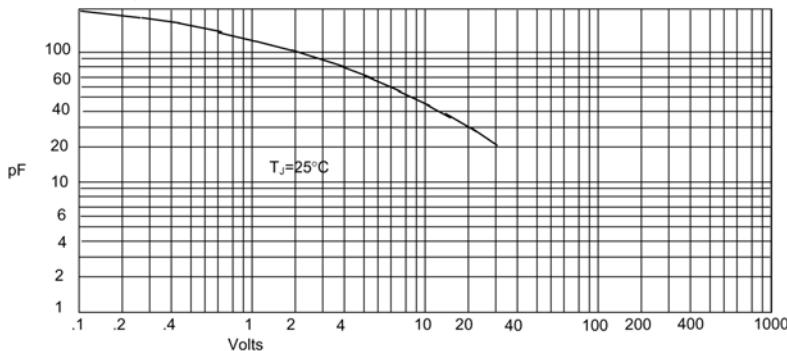
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance

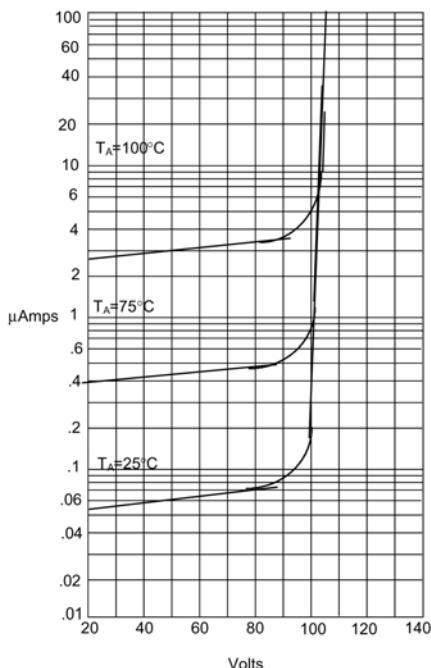


Junction Capacitance - pF versus  
Reverse Voltage - Volts

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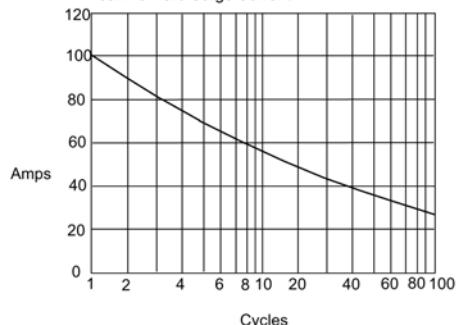
( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Figure 4  
Typical Reverse Characteristics



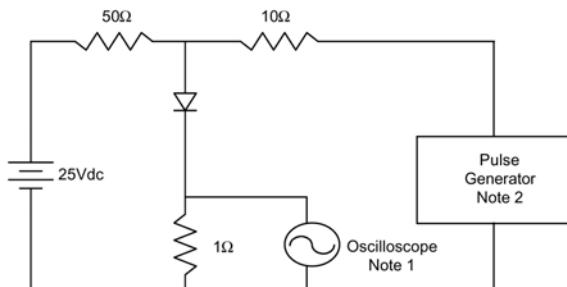
Instantaneous Reverse Leakage Current - MicroAmperesversus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperesversus  
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

