

# GLASS PASSIVATED SUPER FAST RECTIFIERS

## PRODUCT SUMMARY

Reverse Voltage 50 to 600 Volts  
 Forward Current 8.0 Amperes



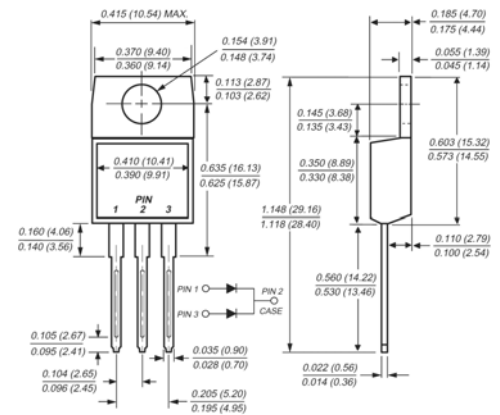
## FEATURES

Superfast switching time for high efficiency  
 Low reverse leakage current  
 High surge capacity

## 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

TO-220AB



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified.)

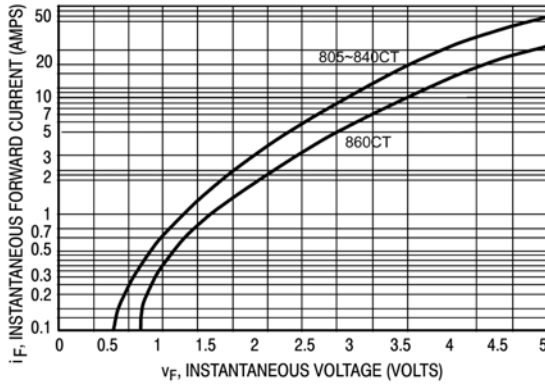
Parameter	Symbol	MUR805CT	MUR810CT	MUR820CT	MUR840CT	MUR860CT	Unit	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	Volts	
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	Volts	
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	Volts	
Maximum average forward rectified current 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 4.0A per element	$V_F$	2.2				2.8		Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	10.0 800						$\mu\text{A}$
Maximum reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_T=0.25\text{A}$	$t_{rr}$	30			50			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  
Typical Reverse Characteristics

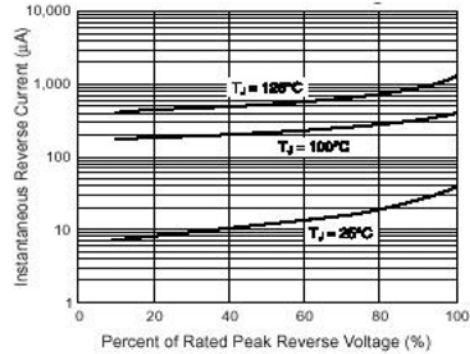
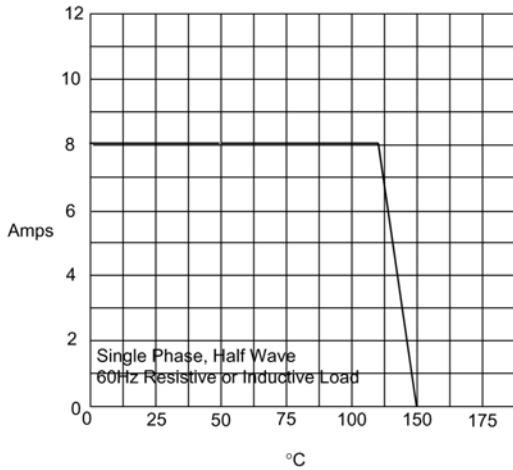
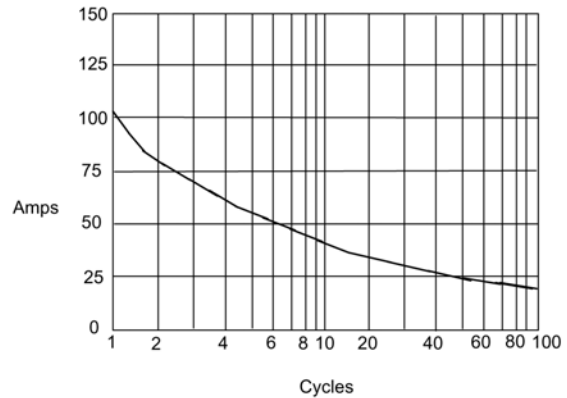


Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature -  $^\circ\text{C}$

Figure 4  
Maximum Non-Repitive Forward Surge Current



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

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