



Glass passivated super fast rectifier

Reverse voltage 100 to 600 volts forward current 10 amperes

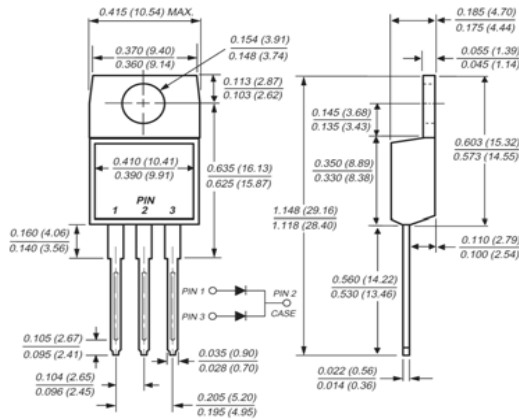
**Features**

- ◆ Low power loss, high efficiency
- ◆ Low forward voltage, high current capability
- ◆ High surge capacity
- ◆ Super fast recovery times, high voltage

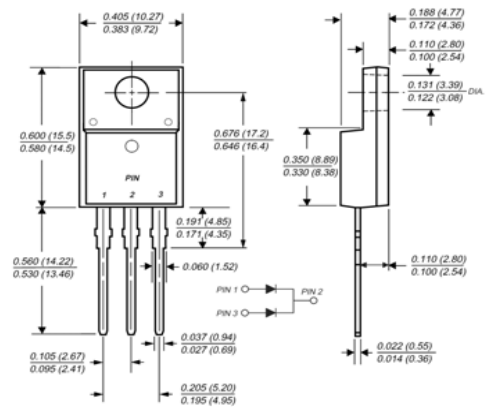
**Mechanical Data**

- ◆ 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**



**TO-220F**



**Maximum Ratings and Electrical Characteristics**

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR 1010CT	MUR 1015CT	MUR 1020CT	MUR 1030CT	MUR 1040CT	MUR 1060CT	Unit	
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	150	200	300	400	600	Volts	
Maximum RMS voltage	$V_{RMS}$	70	105	140	210	280	420	Volts	
Maximum DC blocking voltage	$V_{DC}$	100	150	200	300	400	600	Volts	
Maximum average forward rectified current at $T_C=100^\circ\text{C}$	$I_{F(AV)}$	10.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150.0							Amps
Maximum instantaneous forward voltage at 5.0A per element	$V_F$	0.95		1.3		1.6		Volts	
Maximum DC reverse current at rated DC blocking voltage	$I_R$	@ $T_C=25^\circ\text{C}$ @ $T_C=100^\circ\text{C}$			10.0 500			$\mu\text{A}$	
Maximum reverse recovery time at $I_F=0.5\text{A}$ , $I_R=1.0\text{A}$ , $I_T=0.25\text{A}$	$t_{rr}$	35				50		nS	
Typical junction capacitance at 4.0V, 1MHz	$C_j$					62		pF	
Typical thermal resistance	$R_{\theta JC}$	TO-220AB (TYP) TO-220F(TYP)			2.0 4.0			$^\circ\text{C/W}$	
Typical thermal resistance	$R_{\theta JA}$	TO-220AB(TYP) TO-220F(TYP)			62.5 62.5			$^\circ\text{C/W}$	
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%



# MUR1010CT thru MUR1060CT MUR1010FCT thru MUR1060FCT

## RATINGS AND CHARACTERISTIC CURVES

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

Figure 1  
Typical Forward Characteristics

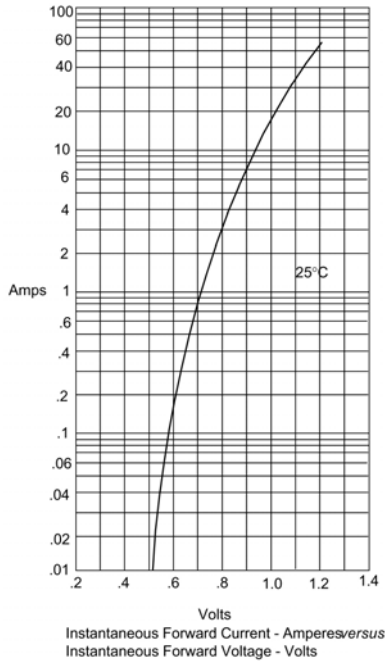


Figure 2  
Typical Reverse Characteristics

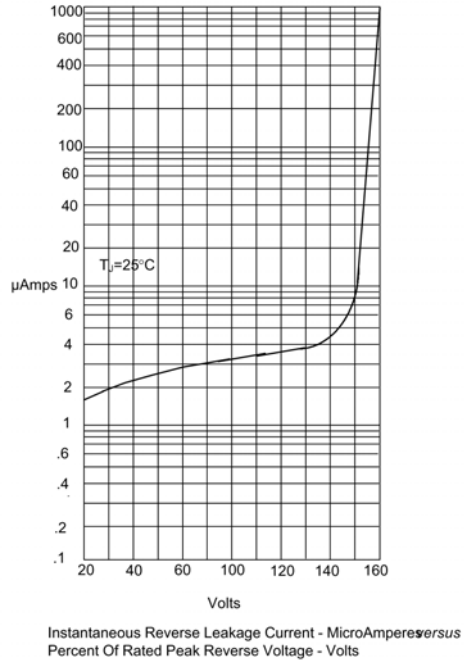


Figure 3  
Forward Derating Curve

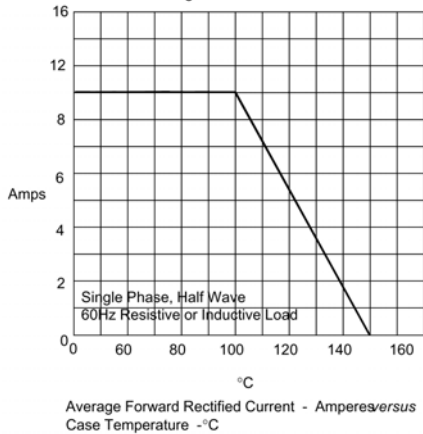


Figure 4  
Maximum Non-Repetitive Forward Surge Current

