

MUR1020CT thru MUR1060CT

Reverse Voltage 200V--600 V

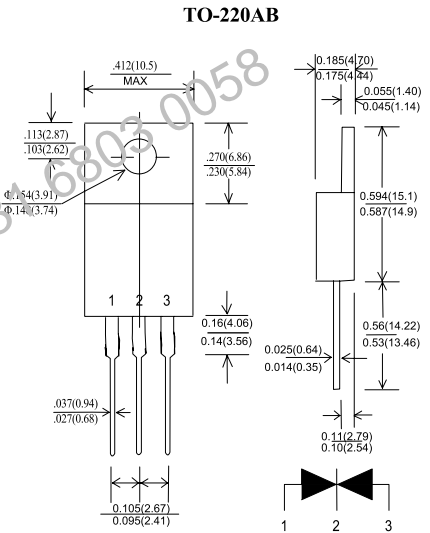
Forward Current(Single) 5.0 A

Features

- ✧ Ultrafast 35 Nanosecond Recovery times
- ✧ Popular TO-220AB Package
- ✧ Epoxy meets UL94, V0 @ 1/8"
- ✧ High temperature glass passivated junction
- ✧ High voltage capability to 600 volts
- ✧ Low leakage specified @ 150°C case temperature
- ✧ Current derating @ both case and ambient temperatures
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode

Mechanical Data

- ✧ Case: Epoxy, molded
- ✧ Terminal: Pure tin plated, lead free
- ✧ Lead temperature for soldering purposes: 260°C Max. for 10 seconds
- ✧ Finish: all external surfaces corrosion resistant and terminal leads are readily solderable
- ✧ Weight: 1.9 grams



Unit: inch (mm)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR 1020CT	MUR 1040CT	MUR 1060CT	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	200	400	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	10			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	120			A
Maximum Instantaneous Forward Voltage (Note 1) @ $I_F=8 A, T_A=25^\circ C$	$V_F$	1.0	1.3	1.7	V
Maximum Reverse Current @ $T_A=25^\circ C$ @ $T_A=125^\circ C$	$I_R$	5 250	10 500		$\mu A$
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	35			ns
Typical Thermal Resistance	$R_{\theta JC}$	3.0	2.0		$^\circ C/W$
Operating Temperature Range	$T_J$	-55 to + 155			$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to + 155			$^\circ C$

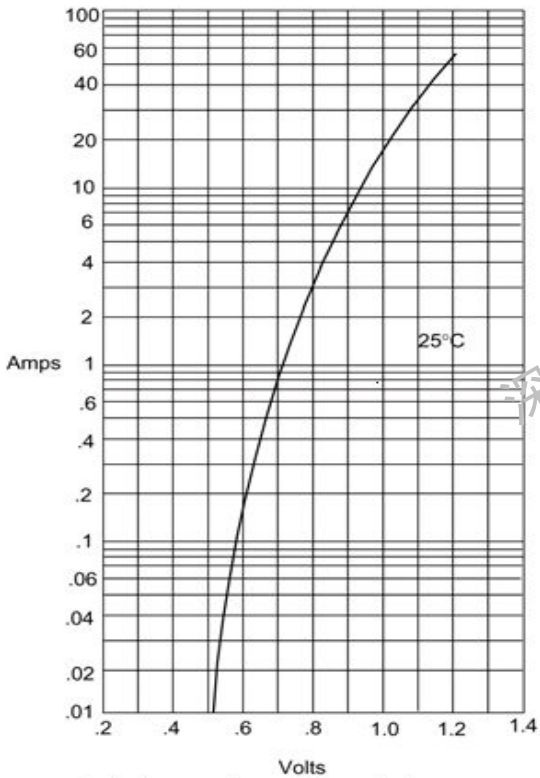
Note 1: Pulse lest: tp = 300uS, Duty Cycle<1%

Note 2: Reverse Recovery Test Condition:IF=0.5A, IR=1.0A, IRR=0.25A

Ultrafast Plastic Rectifiers  
MUR1020CT thru MUR1060CT  
**Characteristic Curves**

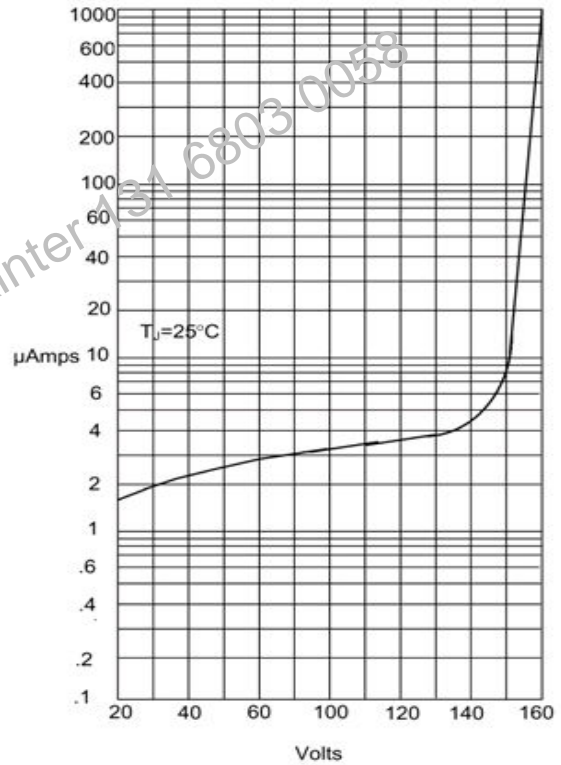
**Formosa MS**

Figure 1  
Typical Forward Characteristics



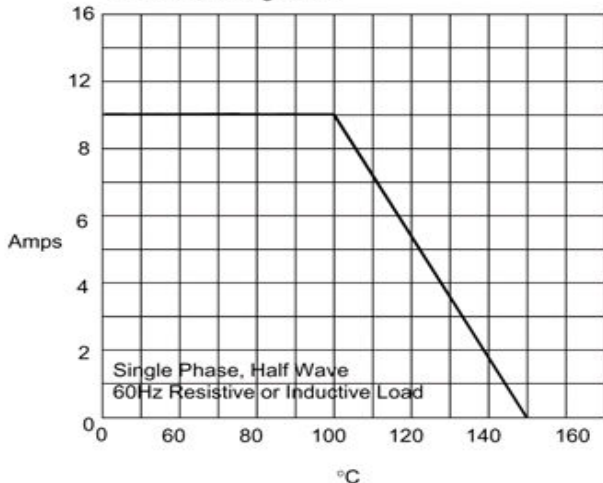
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



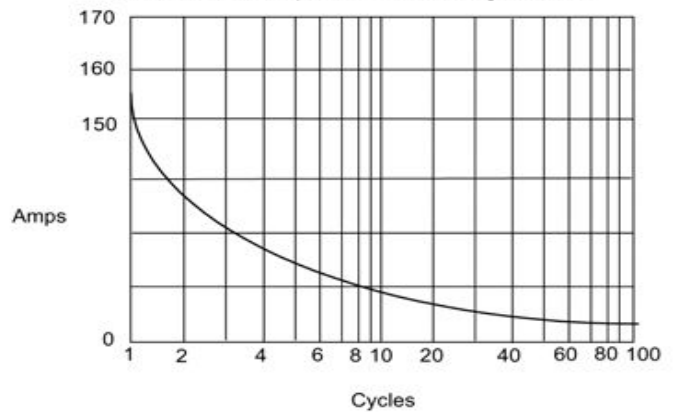
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



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

Figure 4  
Maximum Non-Repetitive Forward Surge Current



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



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