



Micro Commercial Components  
 21201 Itasca Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# MUR1010CT THRU MUR1020CT

## Features

- Glass passivated chip
- Superfast switching time for high efficiency
- Low reverse leakage current
- High surge capacity

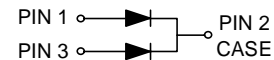
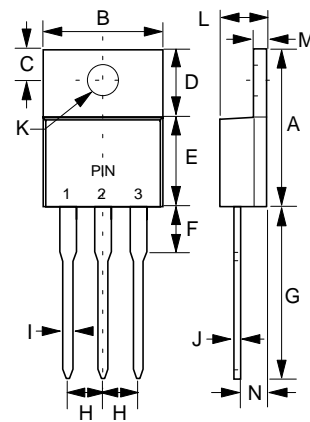
## Maximum Ratings

- Operating Junction Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR1010CT	MUR1010CT	100V	70V	100V
MUR1020CT	MUR1020CT	200V	140V	200V

# 10 Amp Super Fast Glass Passivated Rectifier 100 to 200 Volts

## TO-220AB



## Electrical Characteristics @ 25°C Unless Otherwise Specified

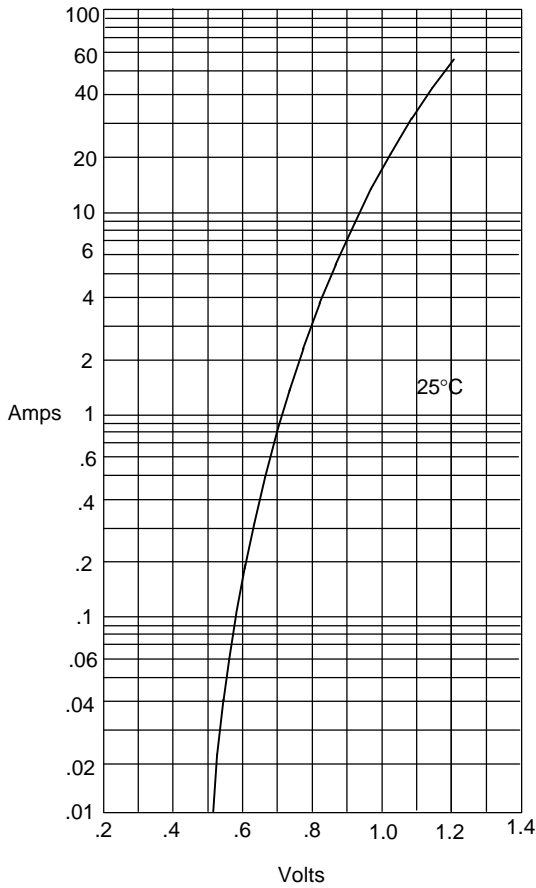
Average Forward Current	$I_{F(AV)}$	10 A	$T_C = 125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	55 A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	0.975V 0.925V 1.25V 1.20V	$T_J = 25^\circ\text{C } I_F = 5\text{A}$ $T_J = 125^\circ\text{C}$ $T_J = 25^\circ\text{C } I_F = 10\text{A}$ $T_J = 125^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	50uA 500uA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	35ns	$I_F = 0.5\text{A}, I_r = 1.0\text{A}, I_{rr} = 0.25\text{A}$
Typical Junction Capacitance	$C_J$	80pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$

\*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	---	.250	---	6.35	
G	.500	.580	12.70	14.73	
H	.090	.110	2.29	2.79	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	

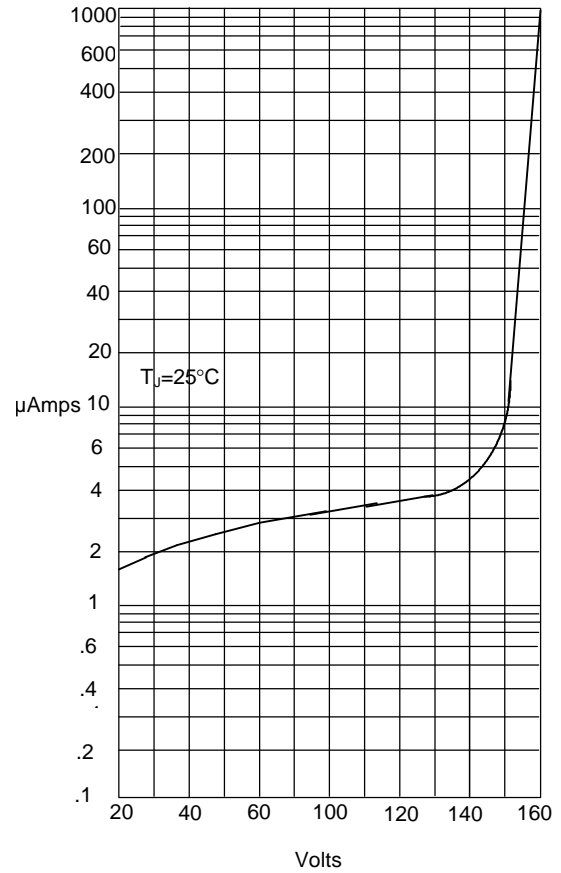
# MUR1010CT thru MUR1020CT

Figure 1  
Typical Forward Characteristics



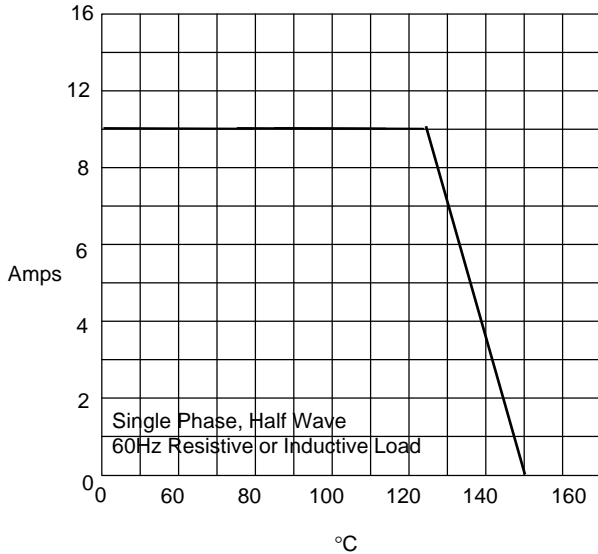
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



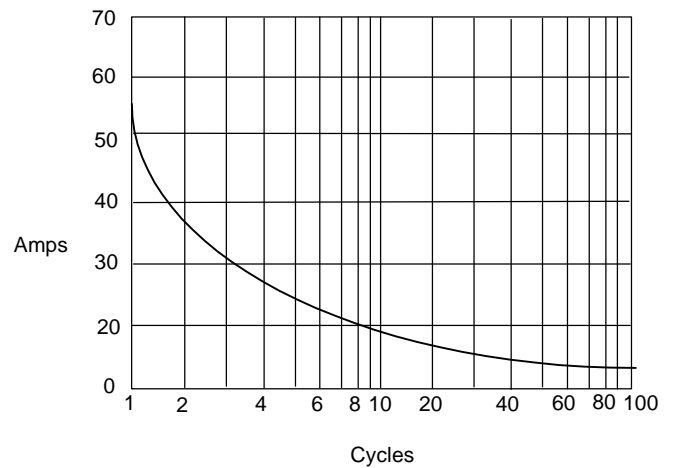
Instantaneous Reverse Leakage Current - MicroAmperes *versus*  
Percent Of Rated Peak Reverse Voltage - Volts

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