



Micro Commercial Components
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MUR1010CT THRU MUR1020CT

Features

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

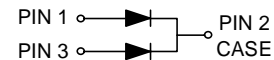
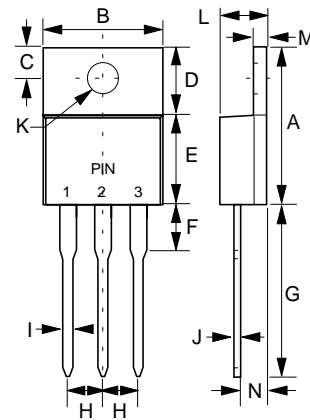
Maximum Ratings

- 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

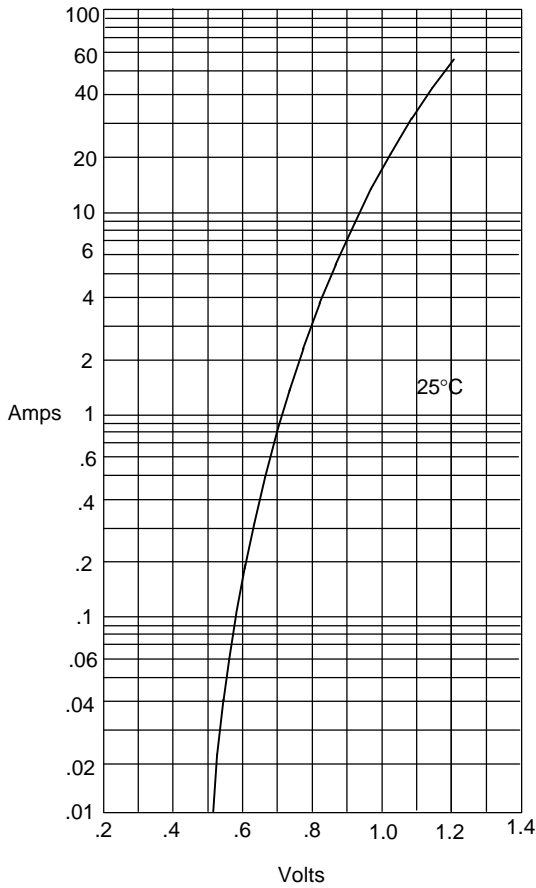
Average Forward Current	$I_{F(AV)}$	10 A	$T_C = 125^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	55 A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	V_F	0.975V 0.925V 1.25V 1.20V	$T_J = 25^\circ\text{C } I_F = 5\text{A}$ $T_J = 125^\circ\text{C}$ $T_J = 25^\circ\text{C } I_F = 10\text{A}$ $T_J = 125^\circ\text{C}$
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	

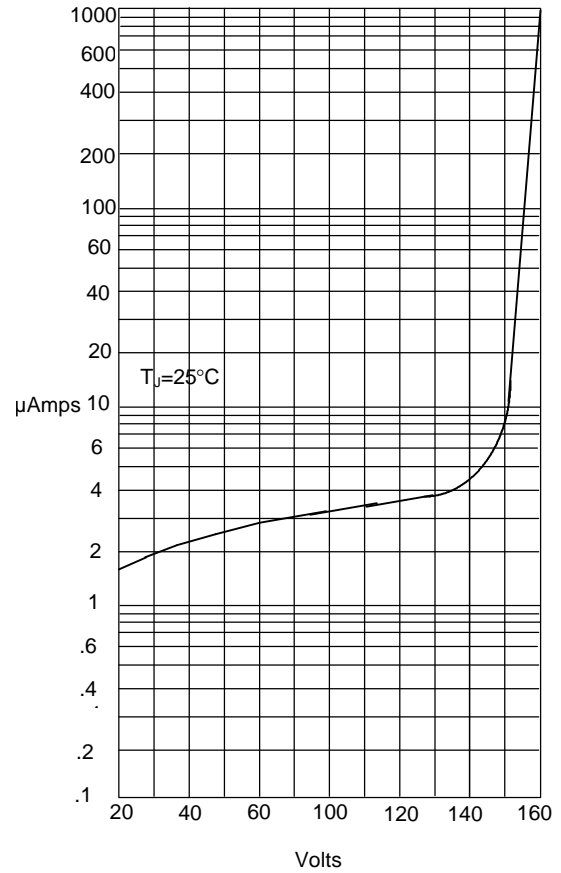
MUR1010CT thru MUR1020CT

Figure 1
Typical Forward Characteristics



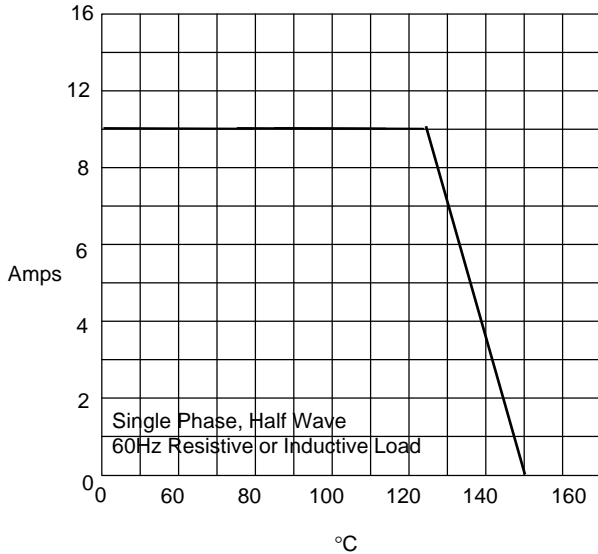
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



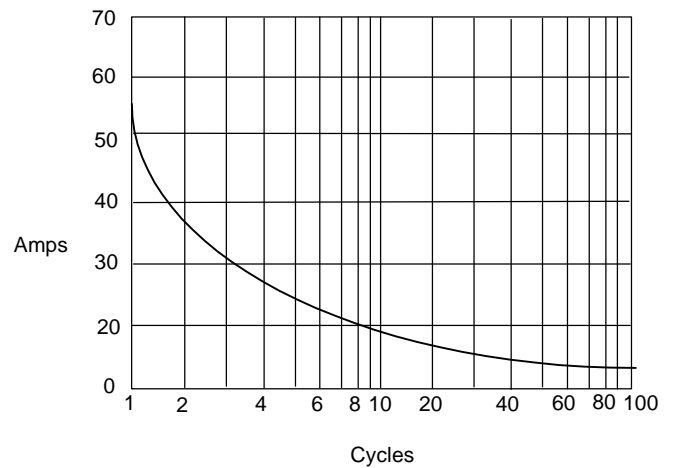
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

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