

MUR1505 THRU MUR1560

Features

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

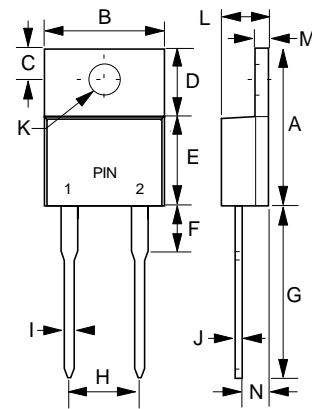
Maximum Ratings

- Operating Temperature: - 55°C to +175°C
- Storage Temperature: - 55°C to +175°C

15 Amp Super Fast Glass Passivated Rectifier 50 to 600 Volts

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR1505	MUR1505	50V	35V	50V
MUR1510	MUR1510	100V	70V	100V
MUR1520	MUR1520	200V	140V	200V
MUR1540	MUR1540	400V	280V	400V
MUR1560	MUR1560	600V	420V	600V

TO-220AC



Electrical Characteristics @ 25°C Unless Otherwise Specified

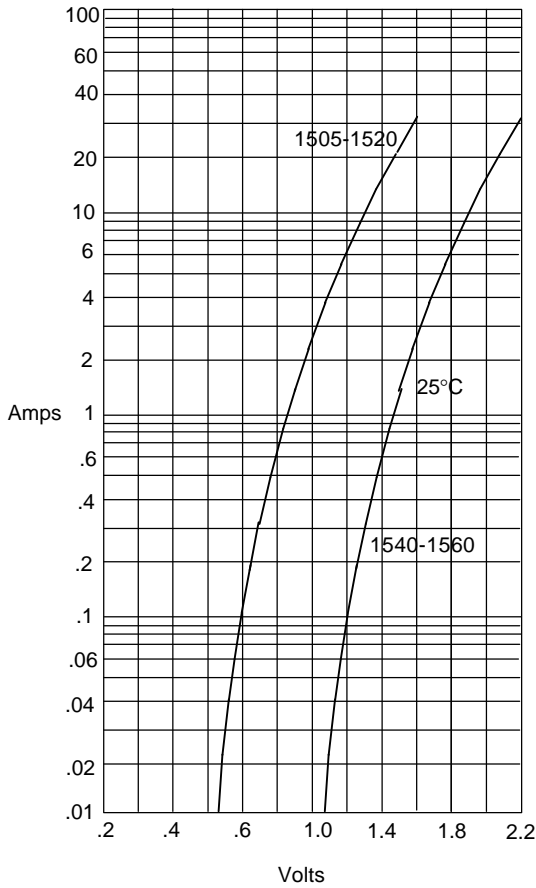
Average Forward Current	$I_{F(AV)}$	15.0A	$T_C = 120^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element 1505-1520 1540-1560	V_F	1.25V 2.0 V	$I_{FM} = 15A$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10uA 1000uA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Maximum Reverse Recovery Time 1505-1520 1540-1560	T_{rr}	35ns 60ns	$I_F=0.5A, I_r=1.0A,$ $I_{rr}=0.25A$
Typical Junction Capacitance	C_J	160pF	Measured at 1.0MHz, $V_R=4.0V$

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	.190	.210	4.83	5.33	
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	
N	.080	.115	2.03	2.92	

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

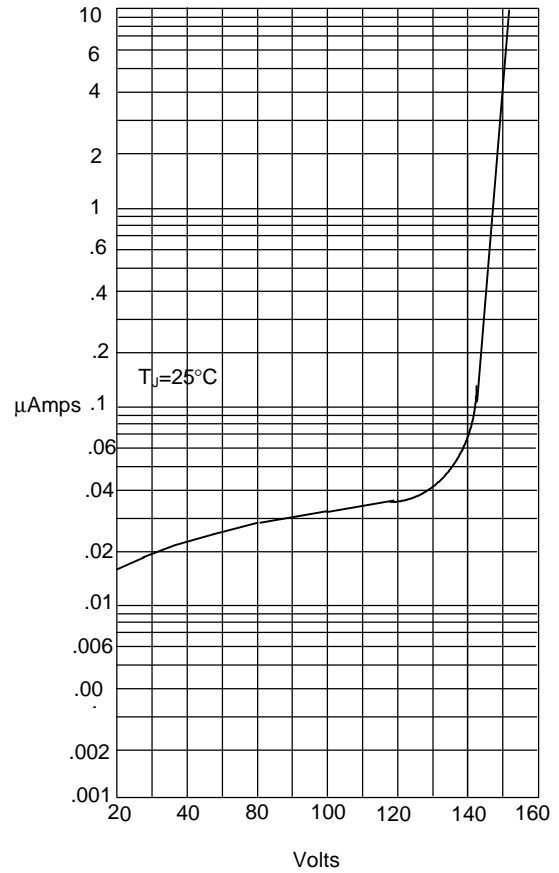
MUR1505 thru MUR1560

Figure 1
Typical Forward Characteristics



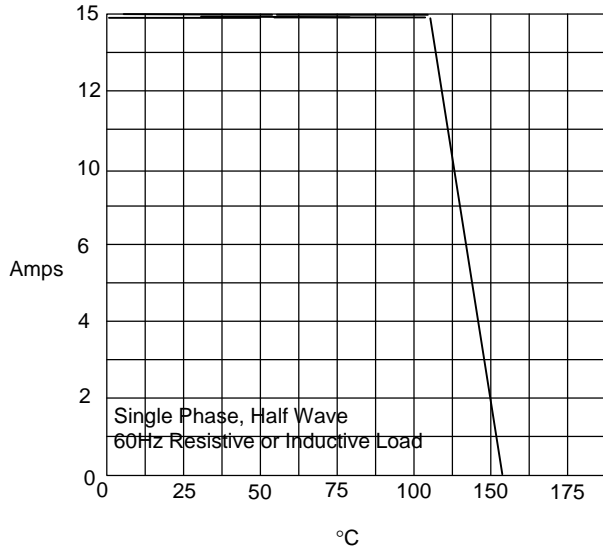
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



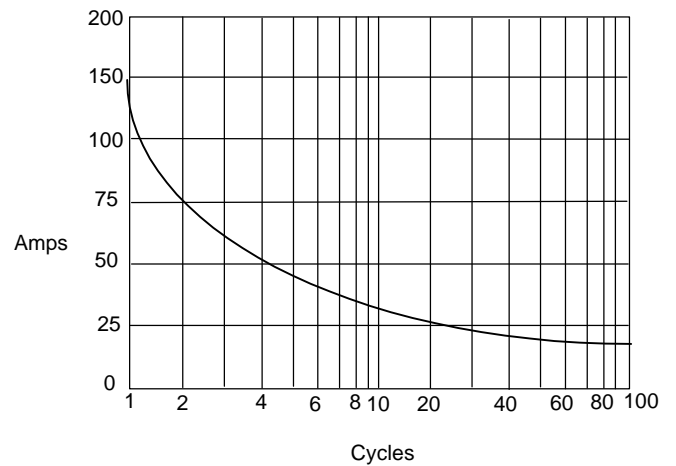
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



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

Figure 4
Maximum Non-Repetitive Forward Surge Current



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