



MBR0520 THRU MBR05100

Features

- High Current Capability
- Extremely Low Thermal Resistance
- For Surface Mount Application
- Higher Temp Soldering: 250°C for 10 Seconds At Terminals
- Low Forward Voltage

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead

Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR0520	20V	14V	20V
MBR0530	30V	21V	30V
MBR0540	40V	28V	40V
MBR0560	60V	42V	60V
MBR0580	80V	56V	80V
MBR05100	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5A	$T_J=115^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	5.5A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR0520 MBR0530 MBR0540 MBR0560 MBR0580-05100	V_F	0.45V 0.55V 0.55V 0.70V 0.80V	$I_{FM}=0.5A$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.2mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance	C_J	30pF	Measured at 1.0MHz, $V_R=4.0\text{ V}$

0.5 Amp Schottky Rectifier 20 to 100 Volts

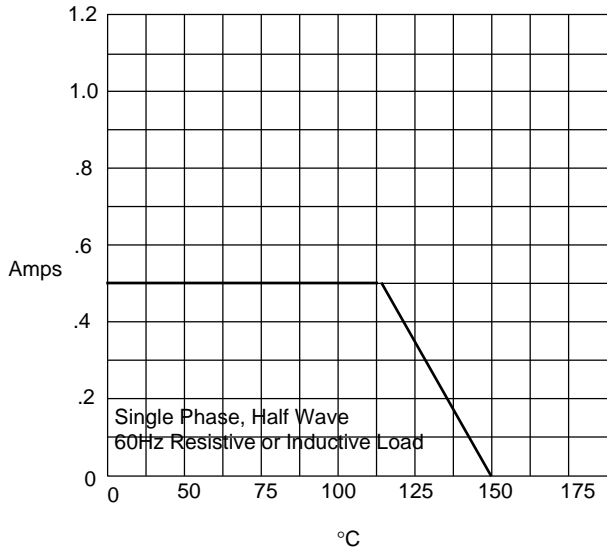
SOD123

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

SUGGESTED SOLDER PAD LAYOUT

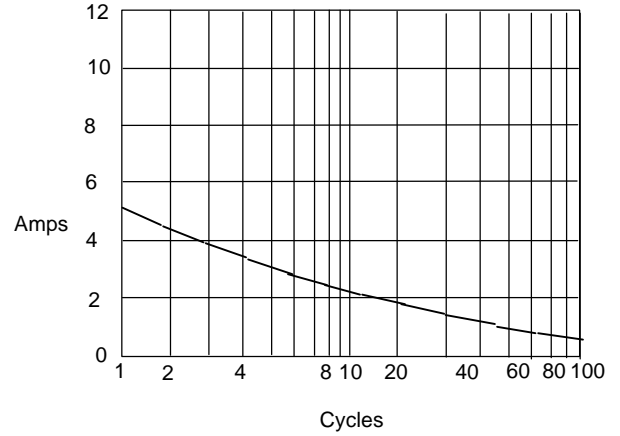
MBR0520 thru MBR05100

Figure 3
Forward Derating Curve



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

Figure 4
Peak Forward Surge Current



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