



Shanghai Lunsure Electronic
Technology Co.,Ltd
Tel:0086-21-37185008
Fax:0086-21-57152769

MBR0520 THRU MBR05100

0.5 Amp Schottky Rectifier 20 to 100 Volts

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	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR0520	R2/SD	20V	14V	20V
MBR0530	R3/SE	30V	21V	30V
MBR0540	R4/SF	40V	28V	40V
MBR0560	R6/SG	60V	42V	60V
MBR0580	R8/SH	80V	56V	80V
MBR05100	RA/SI	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, $V_R=4.0\text{ V}$

SOD123

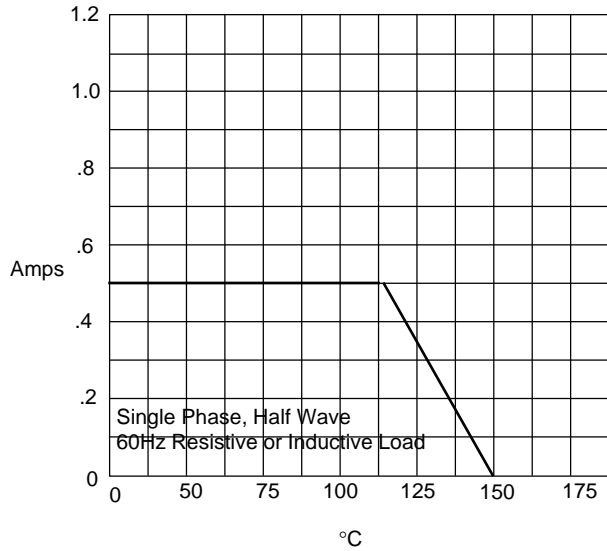
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	----	.053	----	1.35	
E	.012	.031	0.30	.78	
G	.006	----	0.15	----	
H	----	.01	----	.25	
J	----	.006	----	.15	

SUGGESTED SOLDER PAD LAYOUT



MBR0520 thru MBR05100

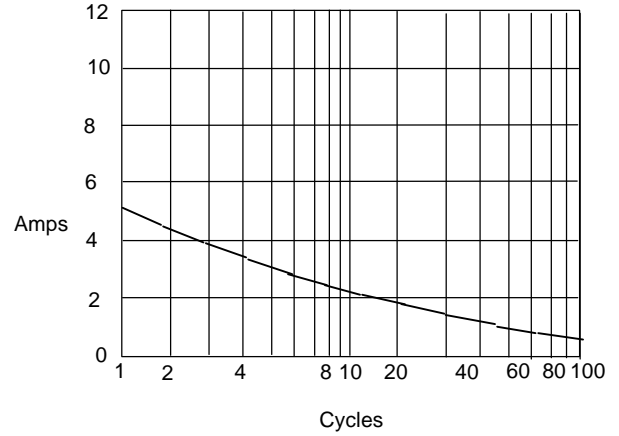
Figure 3
Forward Derating Curve



Single Phase, Half Wave
60Hz Resistive or Inductive Load

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