MBR0520 THRU MBR0560

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

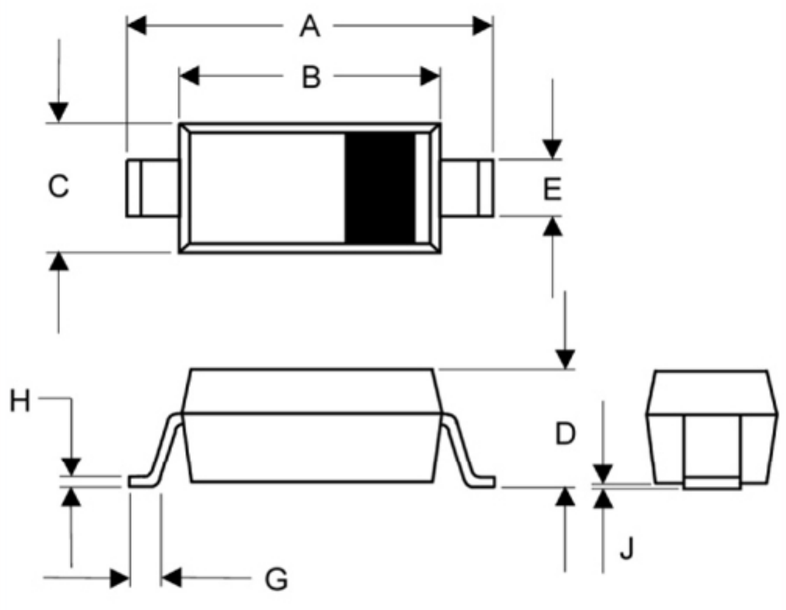
0.5 Amp
Schottky Rectifier
20 to 100 Volts

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

SK Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR0520	B2	20V	14V	20V
MBR0530	B3	30V	21V	30V
MBR0540	B4	40V	28V	40V
MBR0560	B6	60V	42V	60V

SOD-123

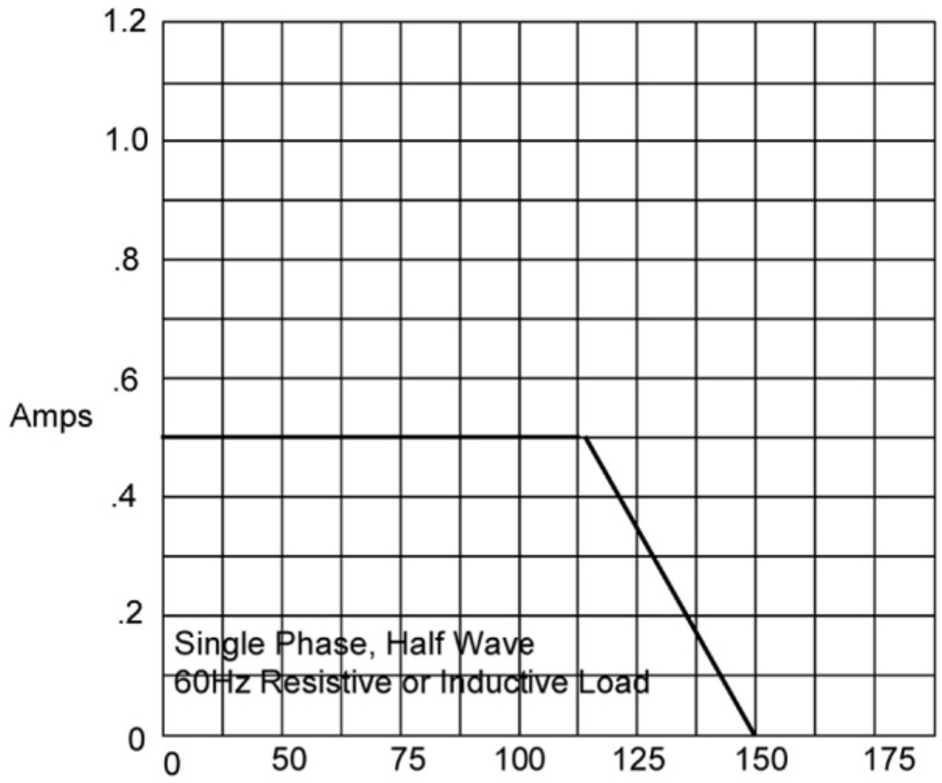


Electrical Characteristics @ 25°C Unless Otherwise Specified

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

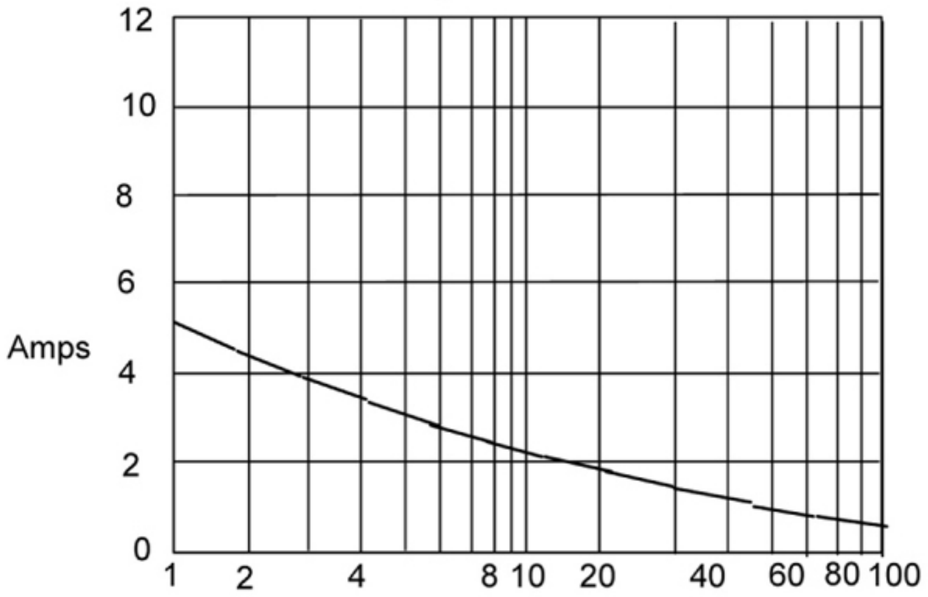
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

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