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# MBRX02520 THRU MBRX025100

## 0.25 Amp Schottky Barrier Rectifier 20 to 100 Volts

### Features

- High Current Capability
- Extremely Low Thermal Resistance
- Reverse Energy Tested
- Guard Ring Protection
- Low Forward Voltage

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 65°C/W Junction to Lead

Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX02520	N/A	20V	14V	20V
MBRX02530	N/A	30V	21V	30V
MBRX02540	N/A	40V	28V	40V
MBRX02550	N/A	50V	35V	50V
MBRX02560	N/A	60V	42V	60V
MBRX02580	N/A	80V	56V	80V
MBRX025100	N/A	100V	70V	100V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.25A	$T_J=115^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	12.5A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBRX02520 MBRX02530-40 MBRX02550-60 MBRX02580-100	$V_F$	0.45V 0.55V 0.70V 0.85V	$I_{FM}=0.25A$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking	$I_R$	0.5mA 20mA	$T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	10pF	Measured at 1.0MHz, $V_R=4.0V$

### SOD323

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.107	2.30	2.70	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.045	0.80	1.15	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT

# MBRX02520 thru MBRX025100



Figure 1  
Typical Forward Characteristics

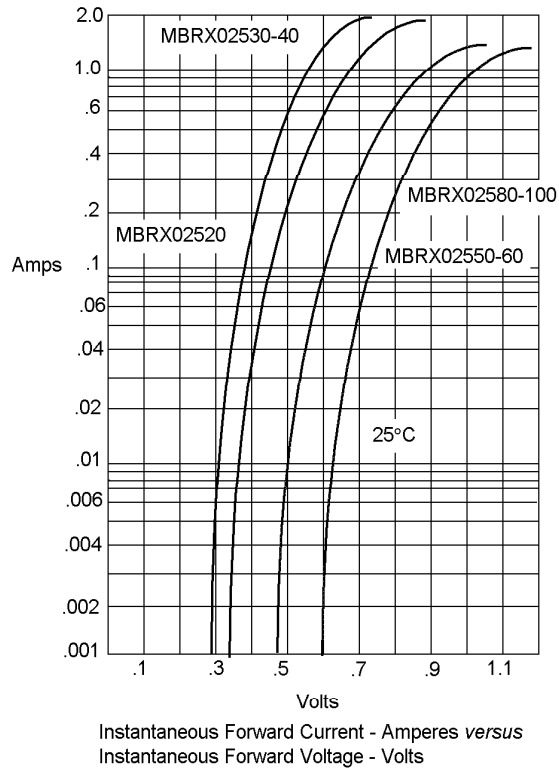
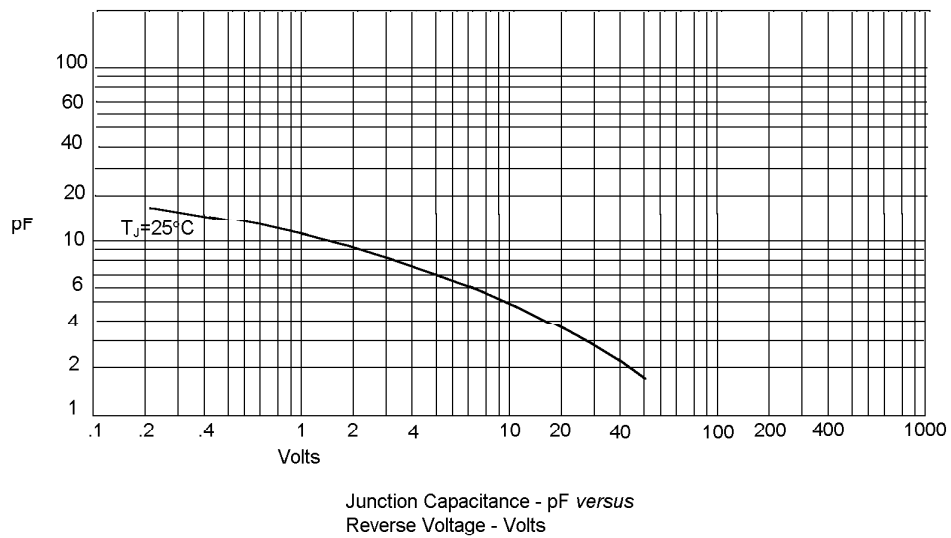


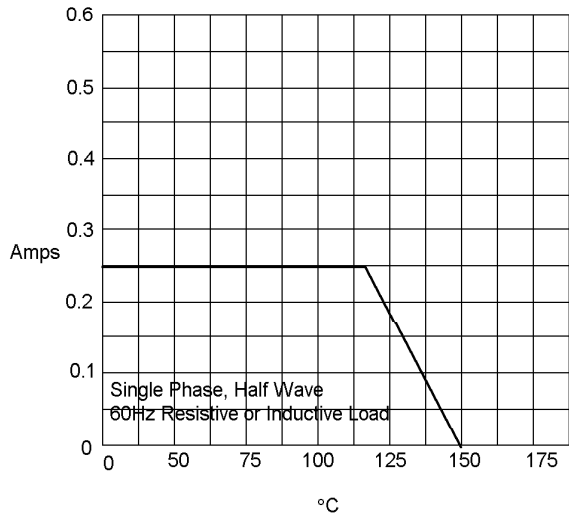
Figure 2  
Junction Capacitance



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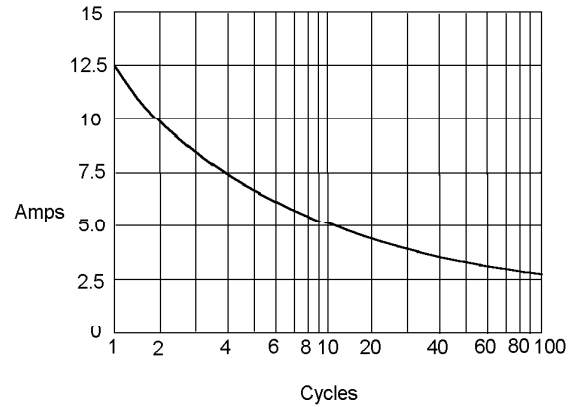


Figure 3  
Forward Derating Curve



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