



Micro Commercial Components
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MBRX0520 THRU MBRX05100

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

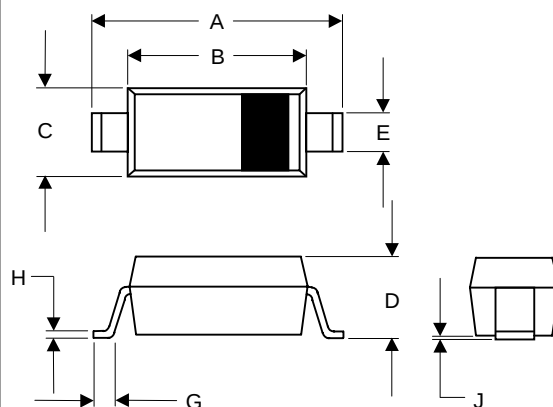
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX0520	-----	20V	14V	20V
MBRX0530	-----	30V	21V	30V
MBRX0540	-----	40V	28V	40V
MBRX0560	-----	60V	42V	60V
MBRX0580	-----	80V	56V	80V
MBRX05100	-----	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5A	$T_J=90^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	20A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBRX0520 MBRX0530 MBRX0540 MBRX0560 MBRX0580-05100	V_F	0.45V 0.55V 0.55V 0.70V 0.80V	$I_{FM}=0.5A$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.3mA	$T_A=25^\circ\text{C}$
Typical Junction Capacitance	C_J	30pF	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

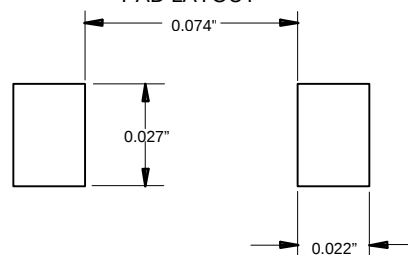


Figure 1
Typical Forward Characteristics

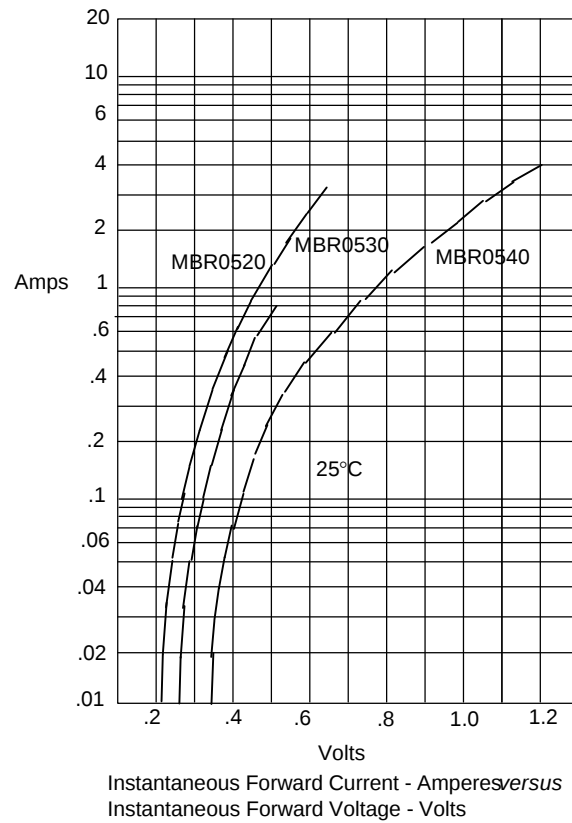
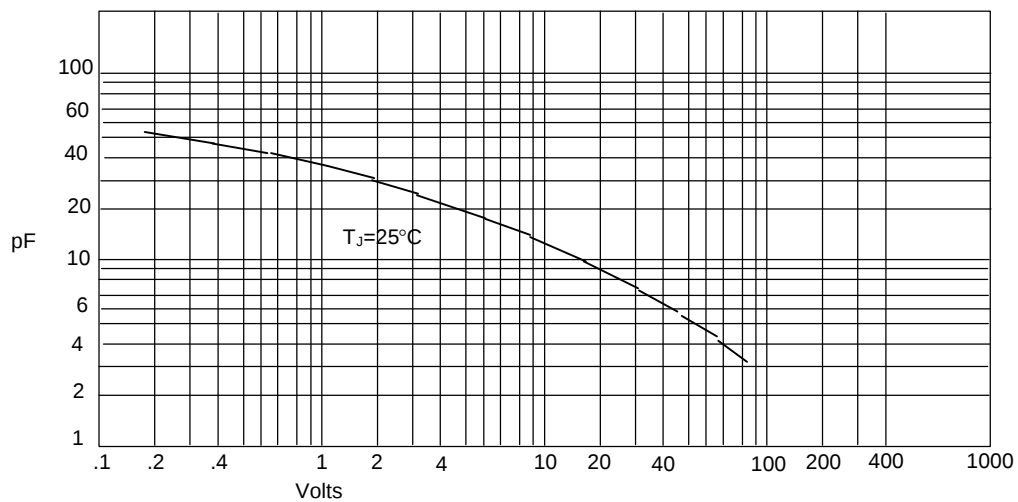
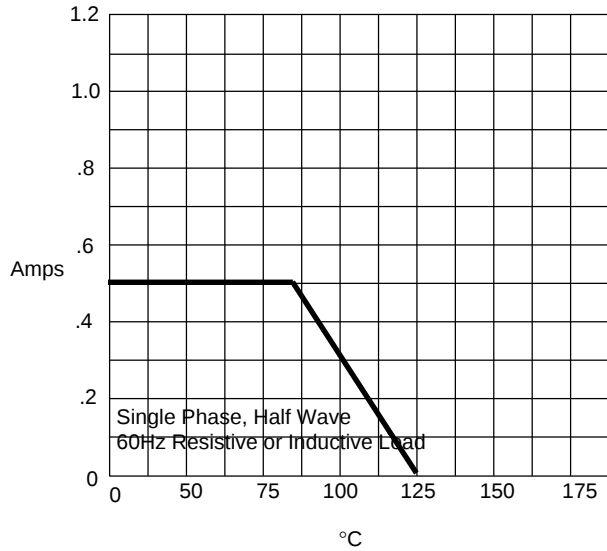


Figure 2
Junction Capacitance



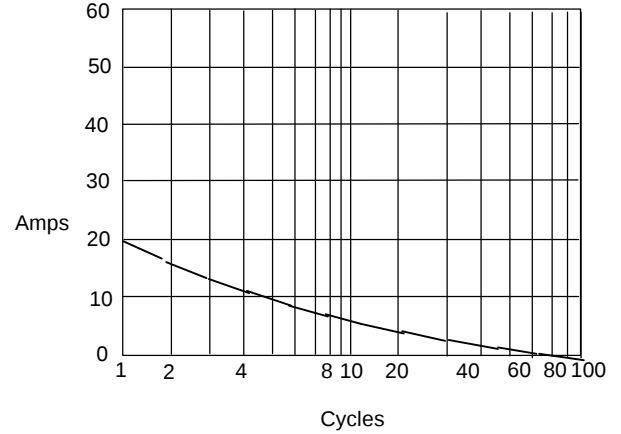
MBRX0520 thru MBRX05100

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