





Micro Commercial Components

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**Features**

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Extremely Low Thermal Resistance
- For Surface Mount Application and High Current Capability
- Higher Temp Soldering: 260°C for 10 Seconds At Terminals
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

**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	2	20V	14V	20V
MBRX0530	3	30V	21V	30V
MBRX0540	4	40V	28V	40V
MBRX0560	6	60V	42V	60V

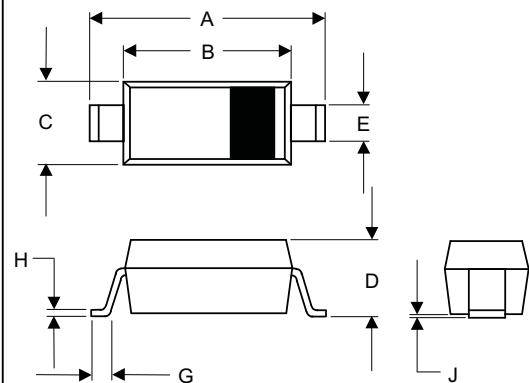
**Electrical Characteristics @ 25°C Unless Otherwise Specified**

Average Forward Current	$I_{F(AV)}$	0.5A	$T_J=90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	5A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBRX0520 MBRX0530 MBRX0540 MBRX0560	$V_F$	0.45V 0.55V 0.55V 0.70V	$I_{FM}=0.5A$ $T_J=25^\circ\text{C}$
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, $V_R=4.0V$
Power Dissipation	$P_D$	250mW	

**MBRX0520  
THRU  
MBRX0560**

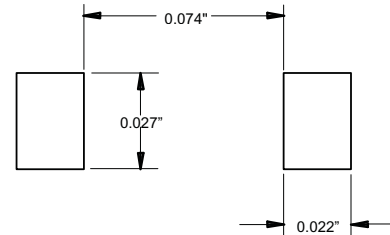
**0.5 Amp  
Schottky Rectifier  
20 to 60 Volts**

**SOD323**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.090	.113	2.30	2.88	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.049	0.80	1.24	
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**



# MBRX0520 thru MBRX0560



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Figure 1  
Typical Forward Characteristics  
MBRX0520

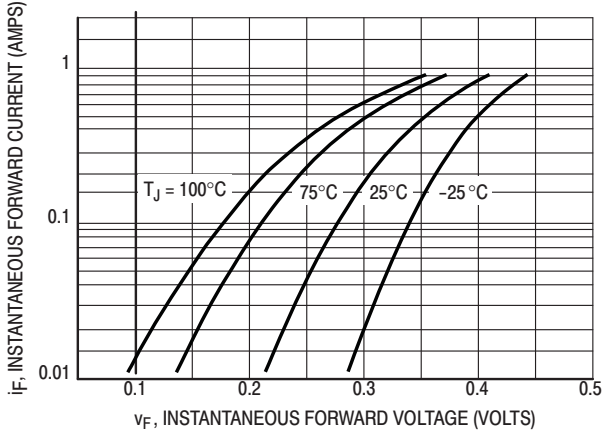


Figure 2  
Typical Forward Characteristics  
MBRX0530~MBRX0540

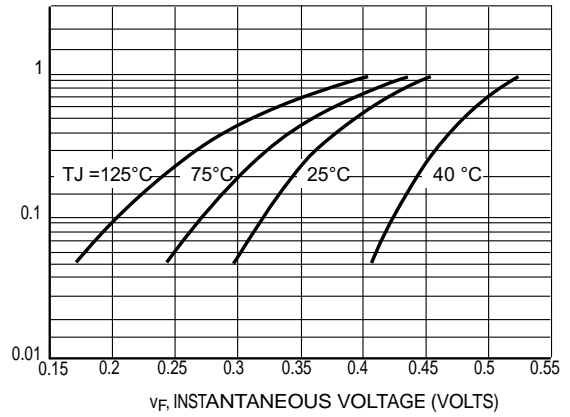


Figure 3  
Typical Forward Characteristics  
MBRX0560

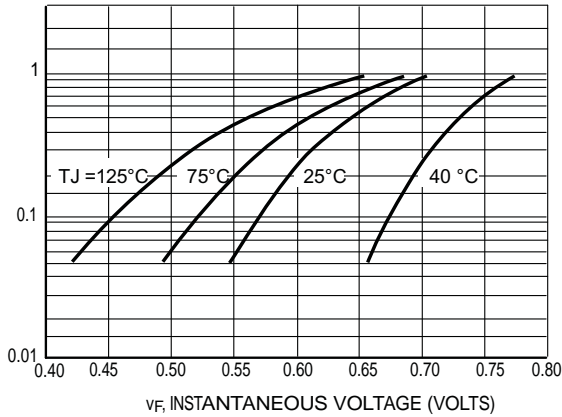
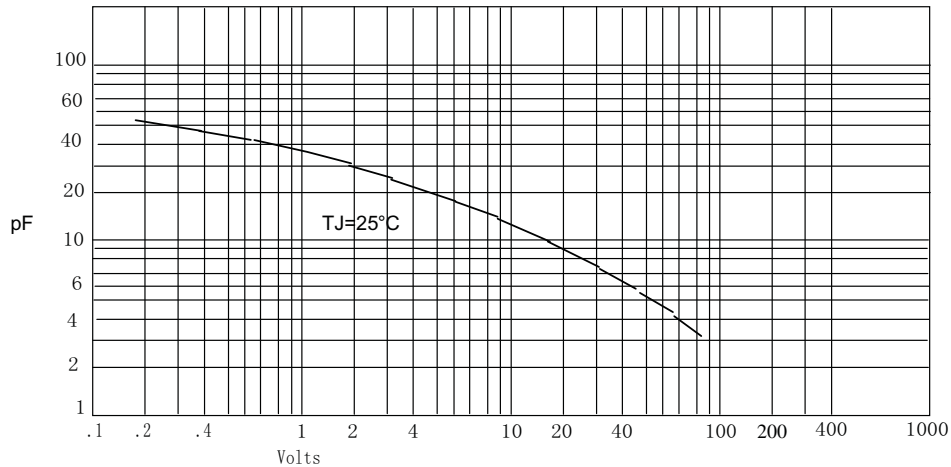
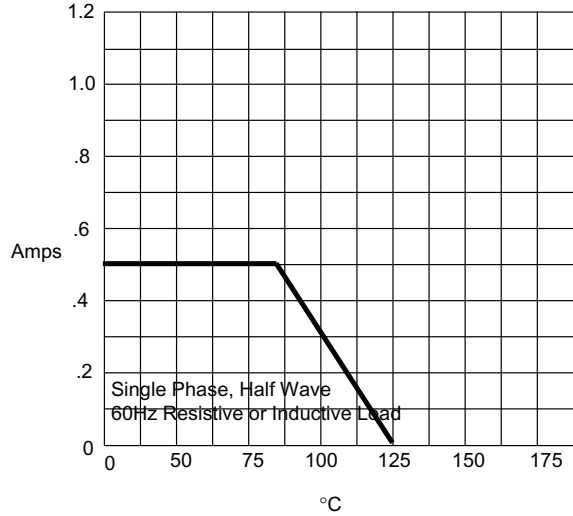


Figure 4  
Junction Capacitance



# MBRX0520 thru MBRX0560

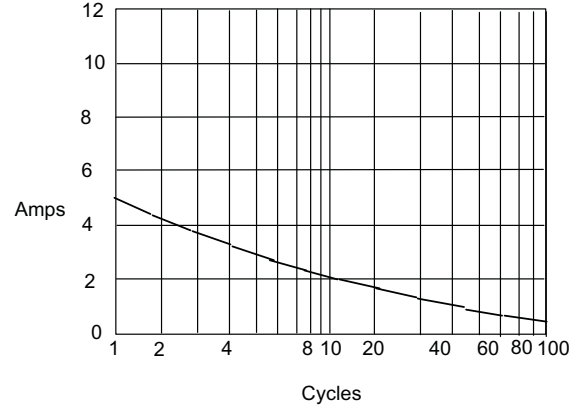
Figure 5  
Forward Derating Curve



Single Phase, Half Wave  
60Hz Resistive or Inductive Load

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

Figure 6  
Peak Forward Surge Current



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



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### Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

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