



Micro Commercial Components

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# MBRX120 THRU MBRX1100

## 1.0 Amp Schottky Barrier 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

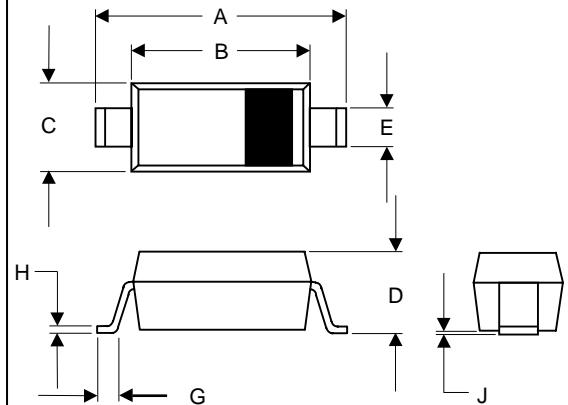
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage 20V
MBRX120	X2	20V	14V	30V
MBRX130	X3	30V	21V	40V
MBRX140	X4	40V	28V	60V
MBRX160	X6	60V	42V	80V
MBRX180	X8	80V	56V	100V
MBRX1100	XA	100V	70V	

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

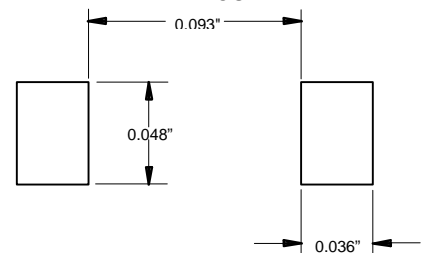
Average Forward Current	$I_{F(AV)}$	1.0A	$T_J=90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	20A	8.3ms half sine
Maximum Instantaneous Forward Voltage	$V_F$	0.50V	$I_{FM}=1.0A$ $T_A=25^\circ\text{C}$
MBRX120		0.55V	
MBRX130		0.55V	
MBRX140		0.72V	
MBRX160-1100		0.85V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.3mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	30pF	Measured at 1.0MHz, $V_R=4.0V$

### 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



# MBRX120 thru MBRX1100

Figure 1  
Typical Forward Characteristics

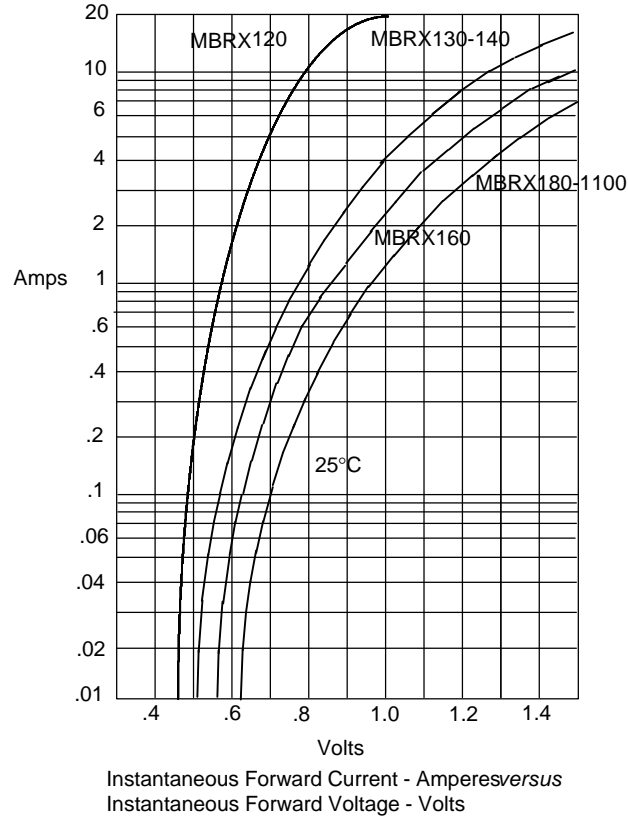
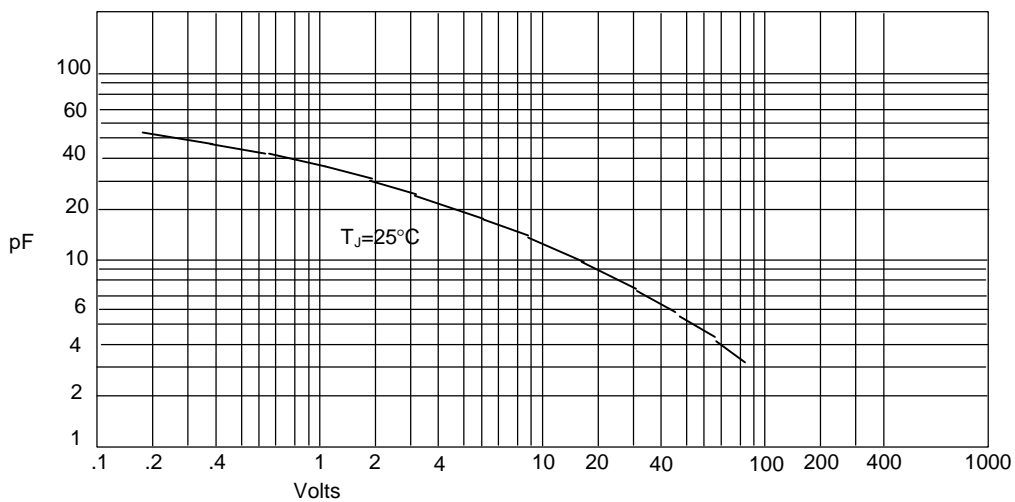
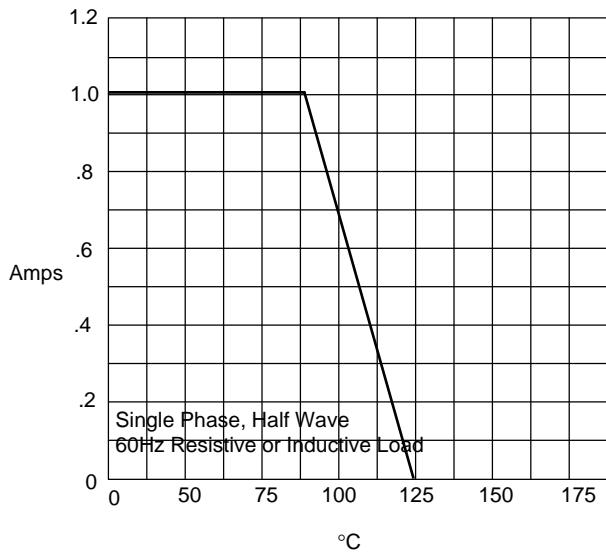


Figure 2  
Junction Capacitance



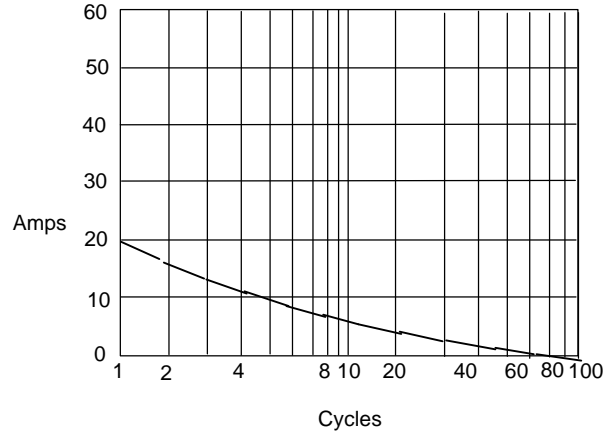
# MBRX120 thru MBRX1100

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



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## Ordering Information

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

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