



Micro Commercial Components

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# MBRX120 THRU MBRX160

## Features

- Extremely Low Thermal Resistance
- For Surface Mount Application
- Low Forward Voltage
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0

## 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

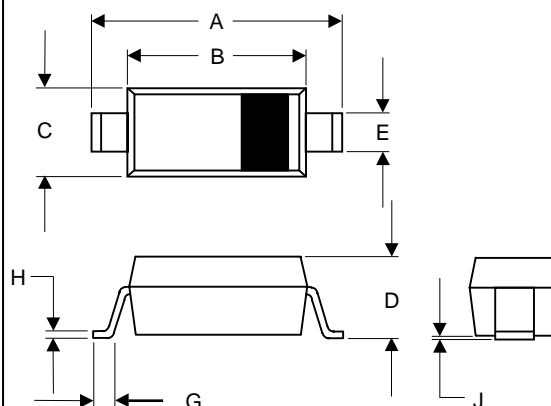
MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX120	X2	20V	14V	20V
MBRX130	X3	30V	21V	30V
MBRX140	X4	40V	28V	40V
MBRX160	X6	60V	42V	60V

## 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 MBRX120 MBRX130 MBRX140 MBRX160	$V_F$	0.50V 0.55V 0.55V 0.72V	$I_{FM}=1.0A$ $T_A=25^\circ\text{C}$
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, $V_R=4.0V$

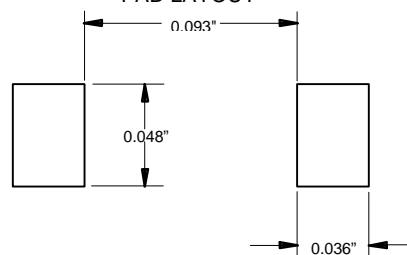
## 1.0 Amp Schottky Barrier Rectifier 20 to 60 Volts

## SOD123



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	

### SUGGESTED SOLDER PAD LAYOUT



# MBRX120 thru MBRX160

Figure 1  
Typical Forward Characteristics

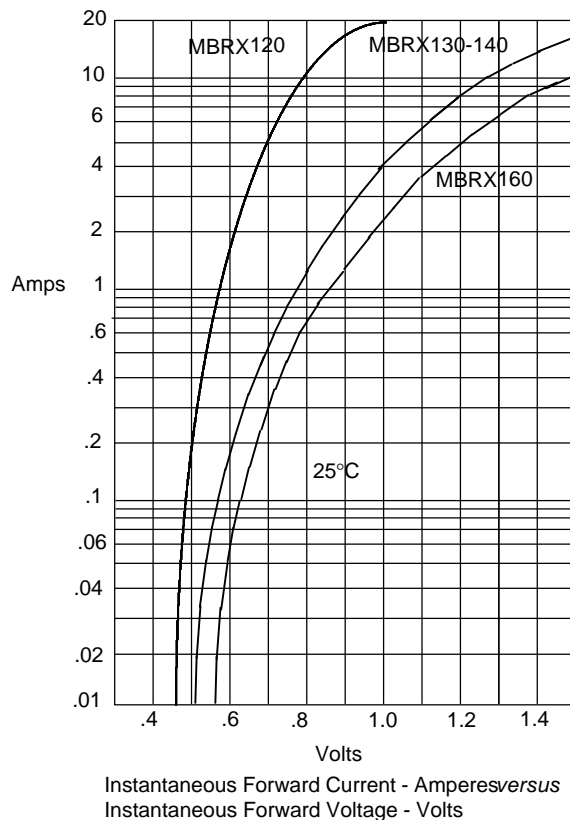
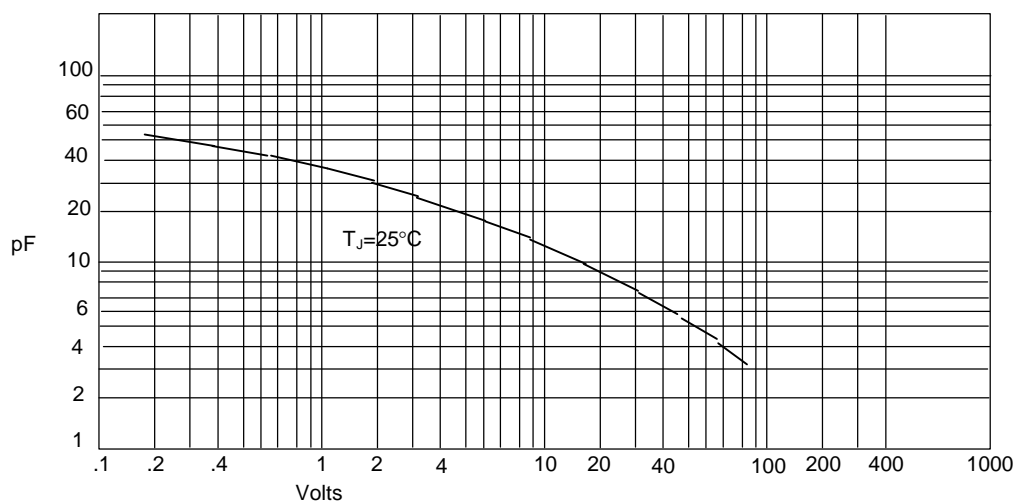
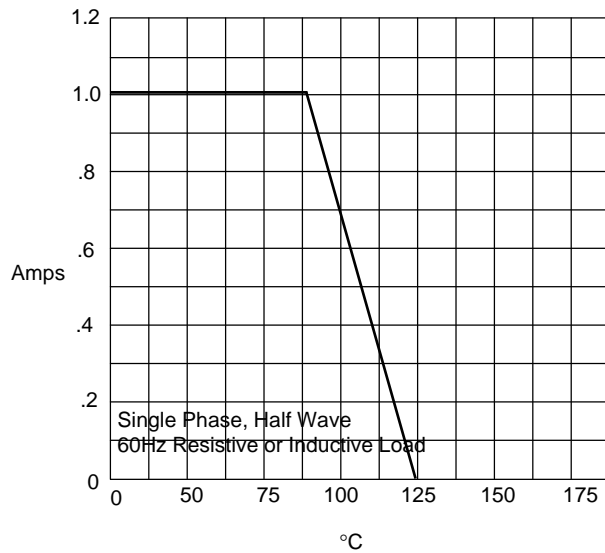


Figure 2  
Junction Capacitance



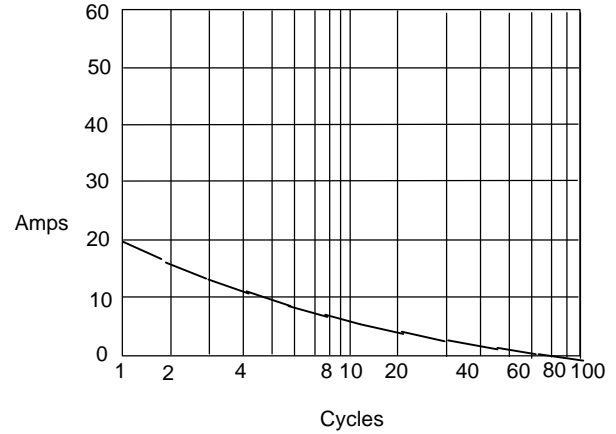
# MBRX120 thru MBRX160

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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