Micro Commercial Corp.
21201 Itasca St.
Chatsworth, CA 91311
Phone: (818) 701-4933
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MBRX120 thru MBRX1100

1 Amp Schottky Rectifier 20 - 100 Volts

Features

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

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance; 40°C/W Junction To Lead

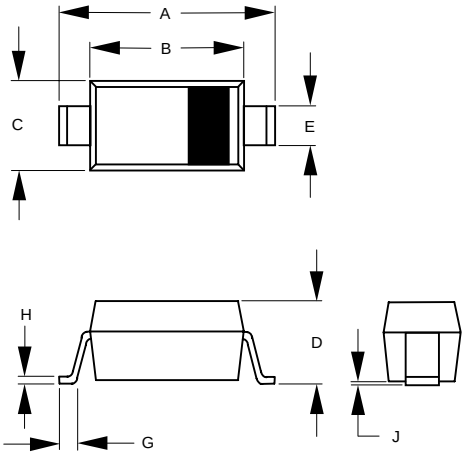
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX120	N/A	20V	14V	20V
MBRX130	N/A	30V	21V	30V
MBRX140	N/A	40V	28V	40V
MBRX150	N/A	50V	35V	50V
MBRX160	N/A	60V	42V	60V
MBRX180	N/A	80V	56V	80V
MBRX1100	N/A	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_J = 115°C
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage MBRX120 MBRX130-140 MBRX150-160 MBRX180-1100	V_F	 .45V .55V .70V .85V	 I_{FM} = 1.0A; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	.5mA 20mA	T_A = 25°C T_A = 100°C
Typical Junction Capacitance MBRX120 MBRX130-1100	C_J	 230pF 50pF	 Measured at 1.0MHz, V_R=4.0V

*Pulse test: Pulse width 300 µsec, Duty cycle 2%

SOD123



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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	.028	0.30	0.70	
G	.010	-----	0.25	-----	
H	-----	.006	-----	0.15	
J	-----	.004	-----	0.10	

Suggested Solder Pad Layout

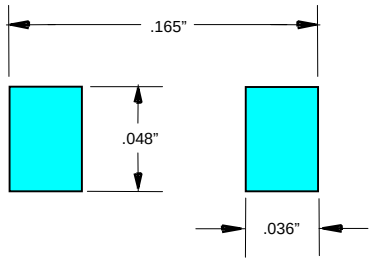
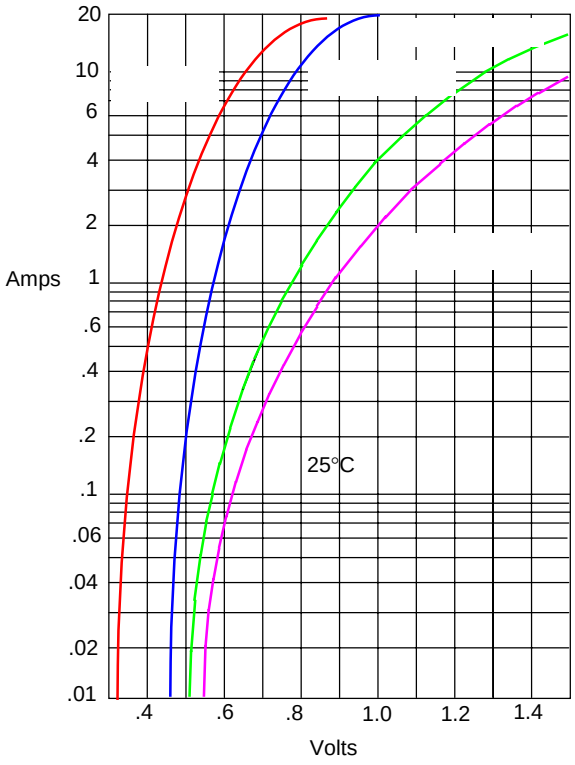
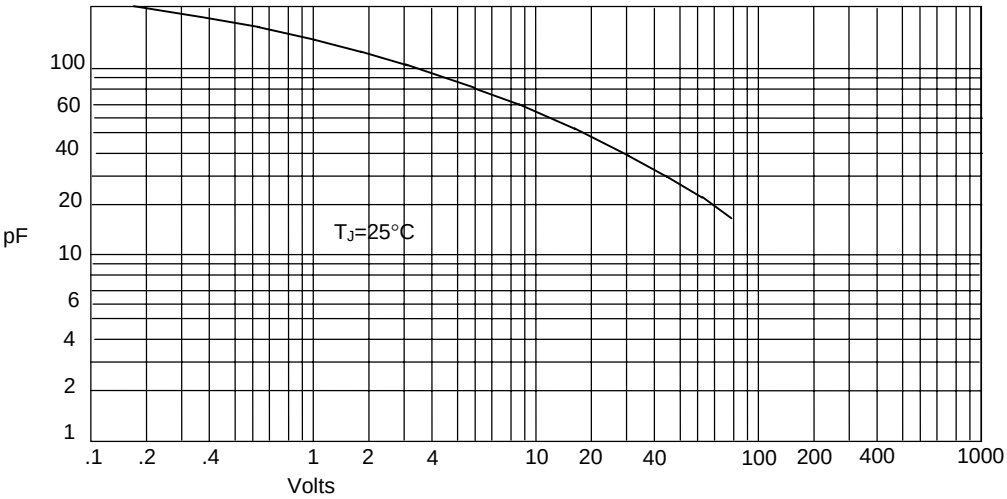


Figure 1
Typical Forward Characteristics



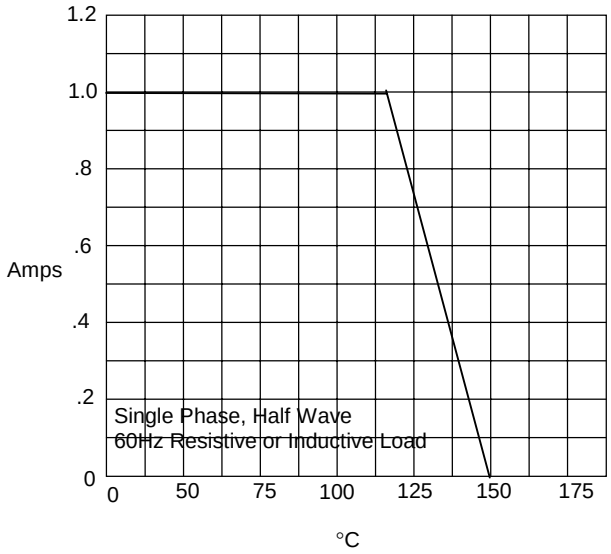
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Junction Capacitance



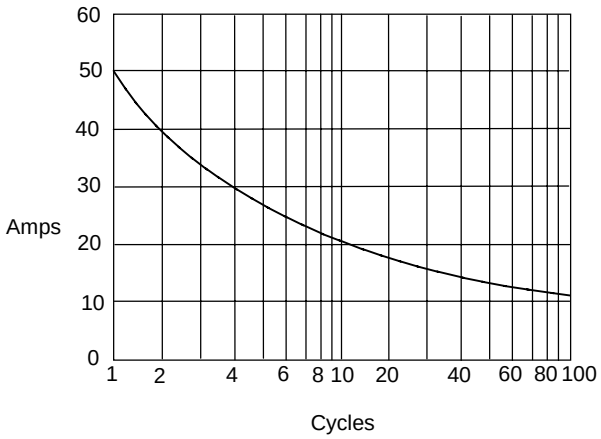
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

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