

MBRX0520 THRU MBRX0560

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

Features

- Lead Free Finish/RoHS Compliant (NOTE 1)("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
- Marking: Cathode Band Only

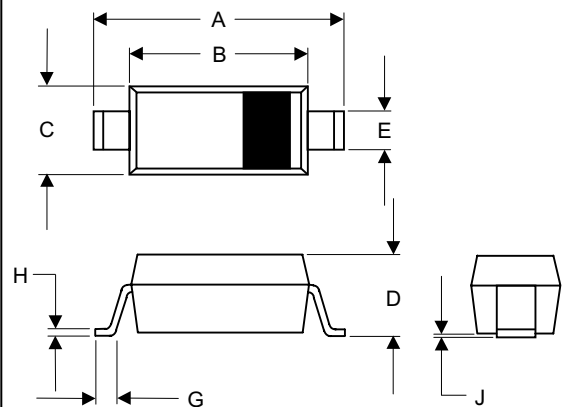
MCC Catalog Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX0520	20V	14V	20V
MBRX0530	30V	21V	30V
MBRX0540	40V	28V	40V
MBRX0560	60V	42V	60V

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	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, $V_R=4.0V$

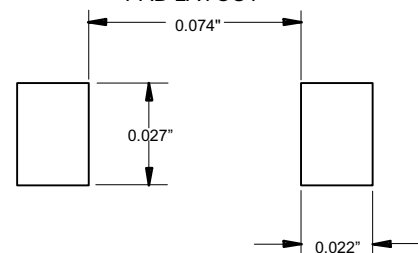
Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

SOD323



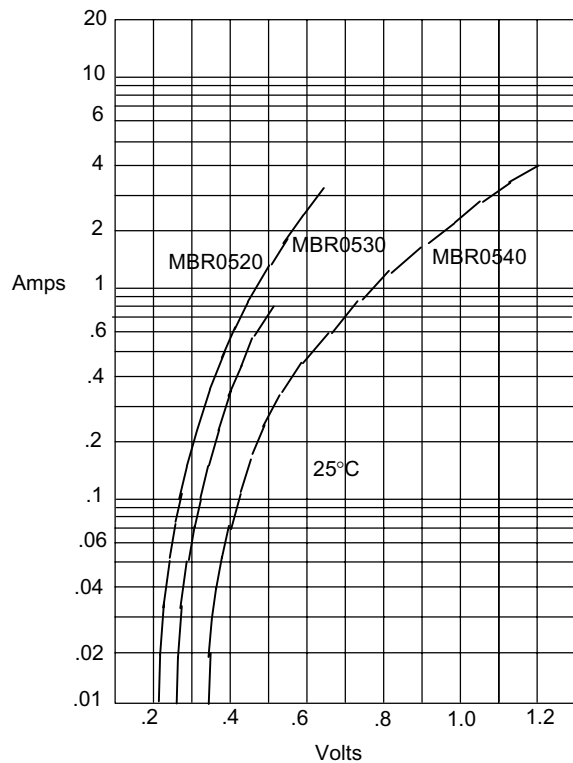
DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.090	.113	2.30	2.88	
B	.063	.071	1.60	1.80	
C	.045	.053	1.15	1.35	
D	.031	.049	0.80	1.24	
E	.010	.016	0.25	0.40	
G	.004	.018	0.10	0.45	
H	.004	.010	0.10	0.25	
J	-----	.006	-----	0.15	

SUGGESTED SOLDER PAD LAYOUT



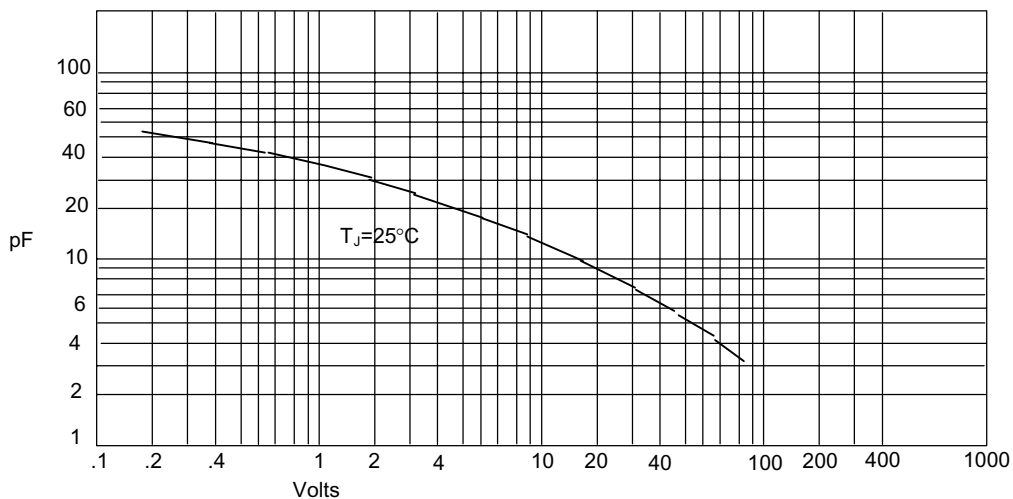
MBRX0520 thru MBRX0560

Figure 1
Typical Forward Characteristics



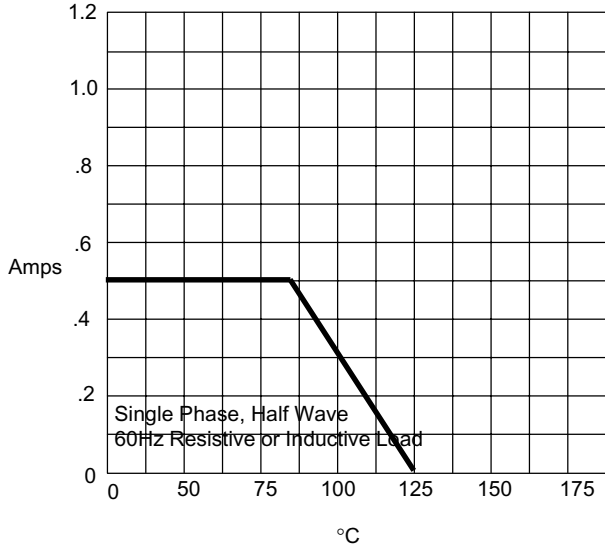
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Junction Capacitance



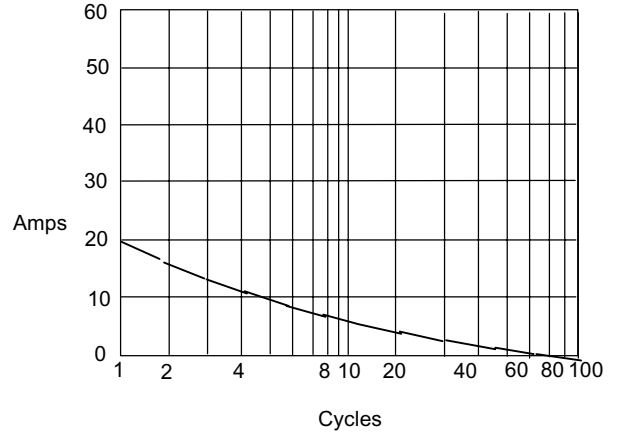
MBRX0520 thru MBRX0560

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

Ordering Information

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