



Micro Commercial Components

Micro Commercial Components  
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# MBRX0520-TPS01

## 0.5 Amp

## Schottky Rectifier

## 20 Volts

### 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

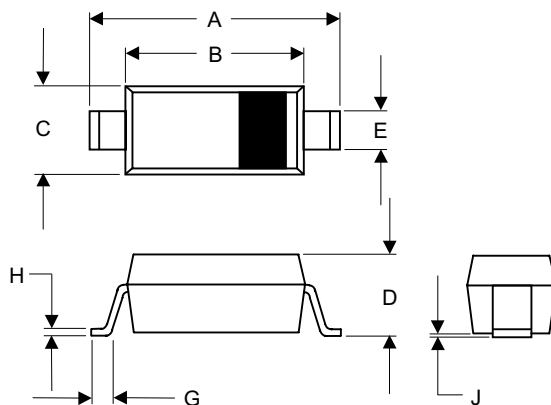
- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 5°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX0520-TPS01	2	20V	14V	20V

### 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	$V_F$	0.45V	$I_{FM}=0.5A$ $T_J=25^\circ\text{C}$
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	

### 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

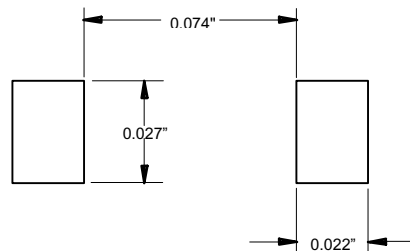


Figure 1  
Typical Forward Characteristics

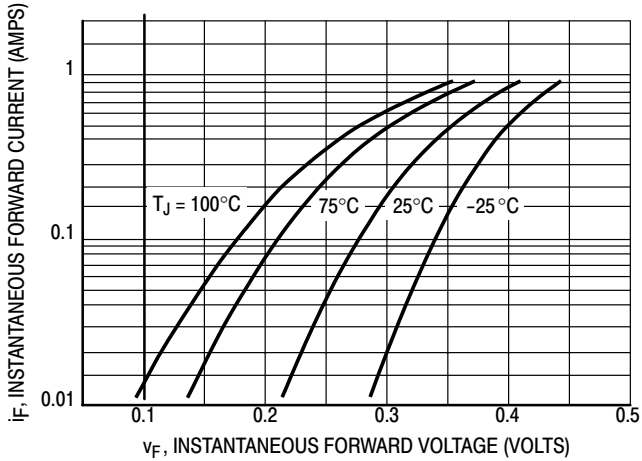


Figure 2  
Typical Forward Characteristics

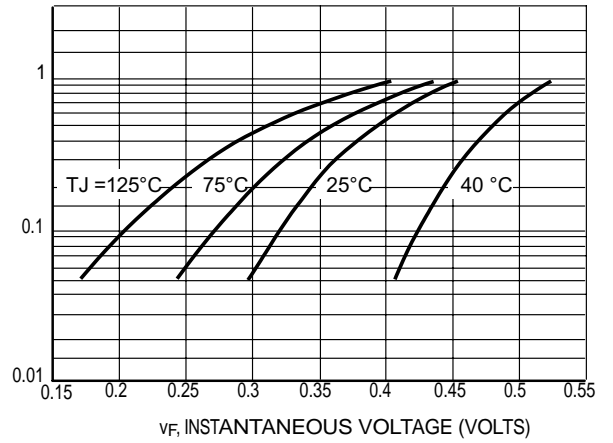


Figure 3  
Typical Forward Characteristics

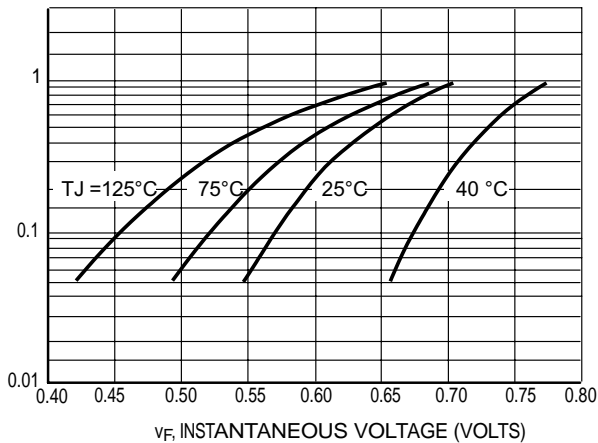
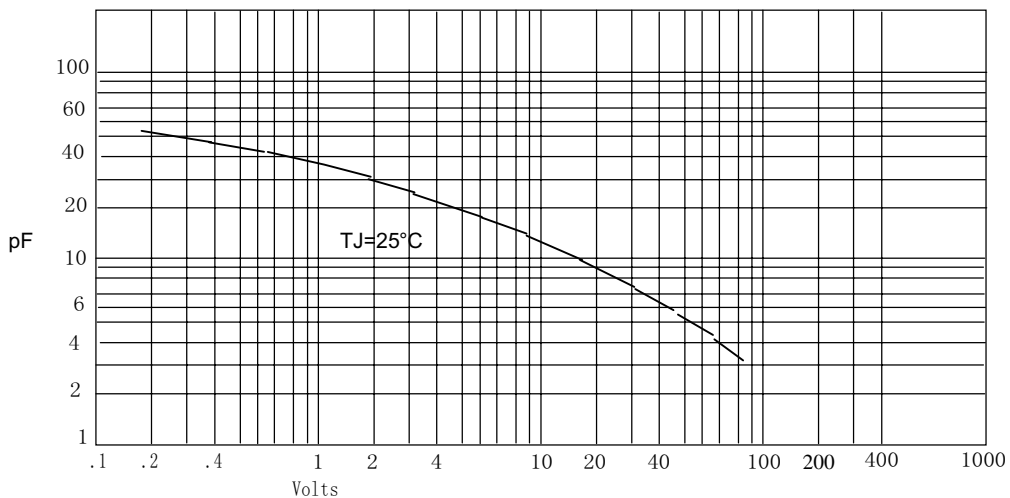
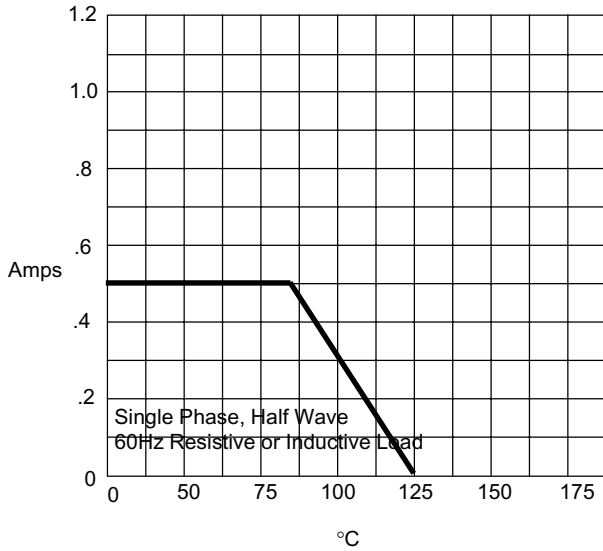


Figure 4  
Junction Capacitance



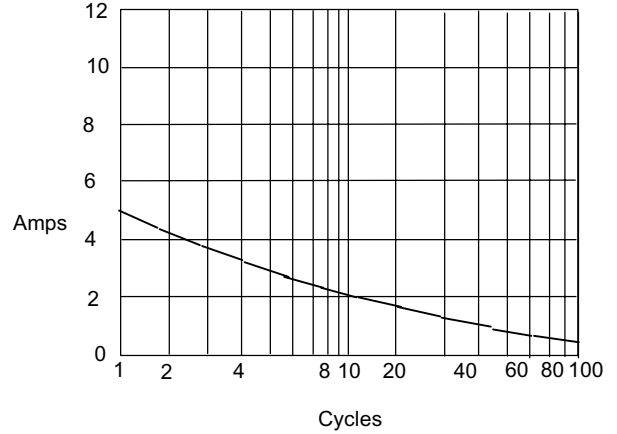
# MBRX0520-TPS01

Figure 5  
Forward Derating Curve



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
MBRX0520-TPS01	Tape&Reel;3Kpcs/Reel

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