



**THE DATASHEET OF
MBRX0540-TP**





Micro Commercial Components

Micro Commercial Components
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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 Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRX0520	2	20V	14V	20V
MBRX0530	3	30V	21V	30V
MBRX0540	4	40V	28V	40V
MBRX0560	6	60V	42V	60V

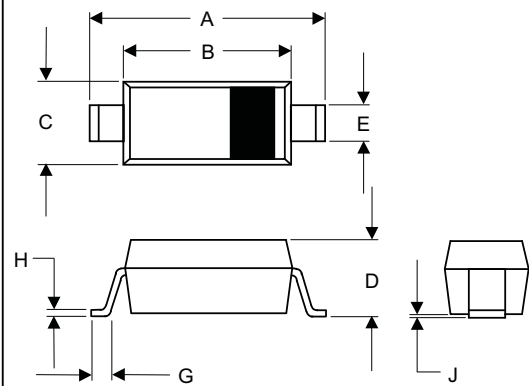
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5A	$T_J=90^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	5A	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, $V_R=4.0V$
Power Dissipation	P_D	250mW	

**MBRX0520
THRU
MBRX0560**

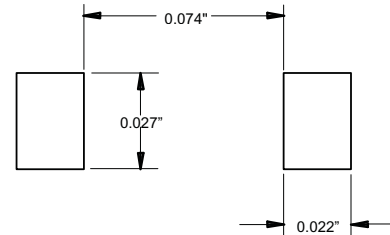
**0.5 Amp
Schottky Rectifier
20 to 60 Volts**

SOD323



DIM	INCHES		MM		NOTE
	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



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Figure 1
Typical Forward Characteristics
MBRX0520

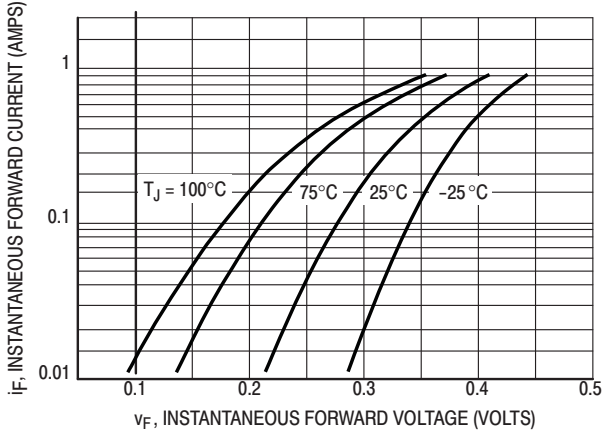


Figure 2
Typical Forward Characteristics
MBRX0530~MBRX0540

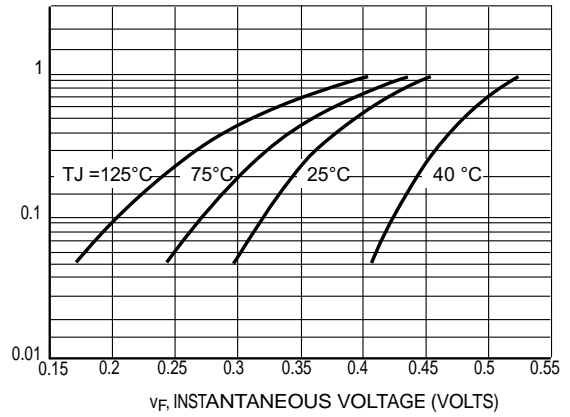


Figure 3
Typical Forward Characteristics
MBRX0560

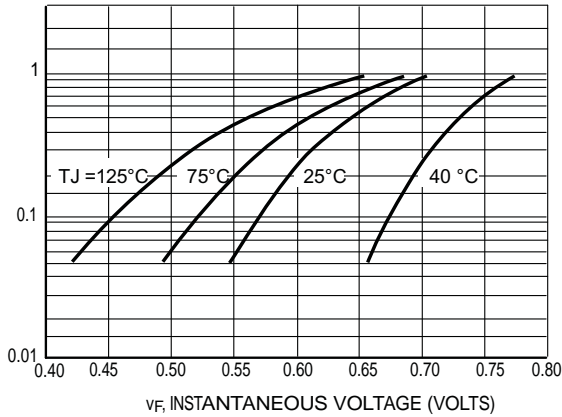
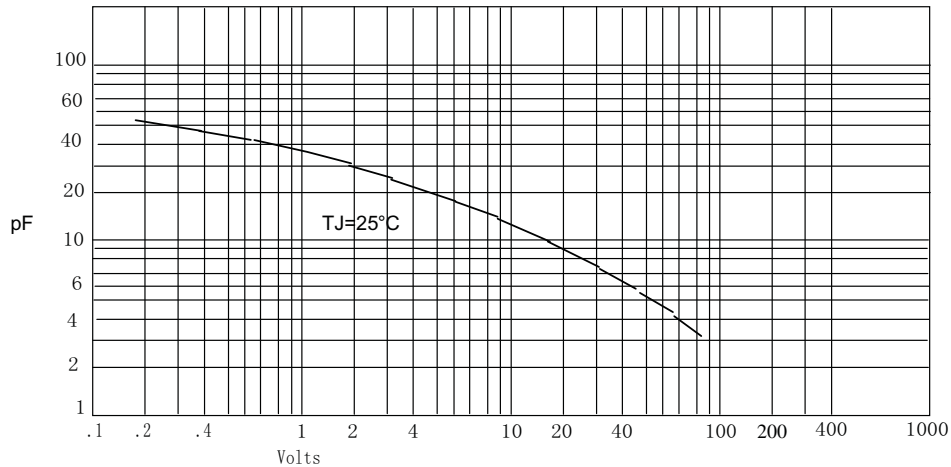
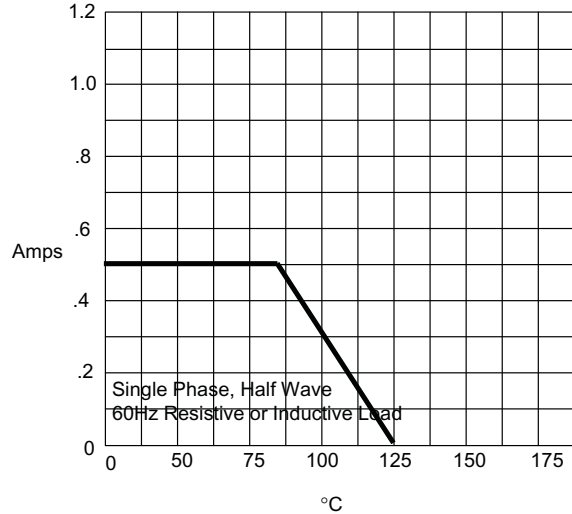


Figure 4
Junction Capacitance



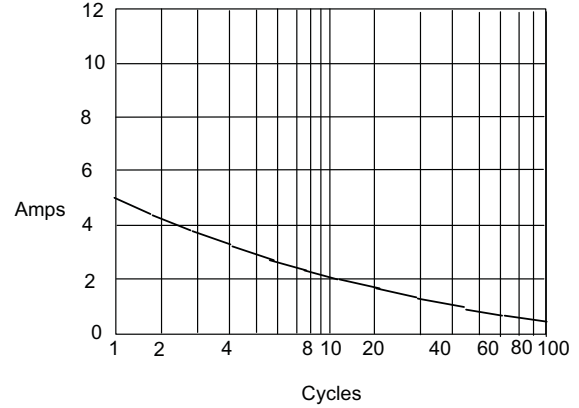
MBRX0520 thru MBRX0560

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

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