



Micro Commercial Components

Micro Commercial Components  
20736 Marilla Street Chatsworth  
CA 91311

Phone: (818) 701-4933

Fax: (818) 701-4939

# MBR0520 THRU MBR0560

## 0.5 Amp Schottky Rectifier 20 to 60 Volts

### Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- For Surface Mount Application
- Low Forward Voltage and Extremely Low Thermal Resistance
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

### Maximum Ratings

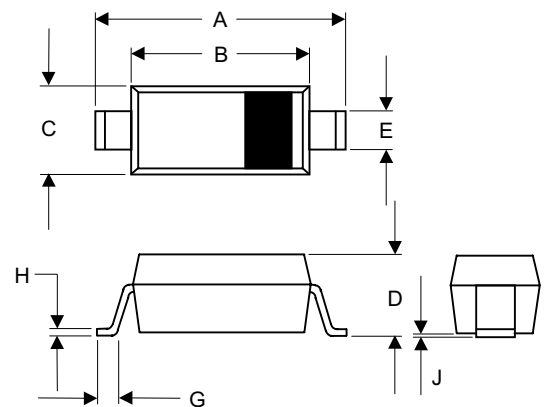
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 244°C/W Junction to Ambient

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR0520	R2	20V	14V	20V
MBR0530	R3	30V	21V	30V
MBR0540	R4	40V	28V	40V
MBR0560	R6	60V	42V	60V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

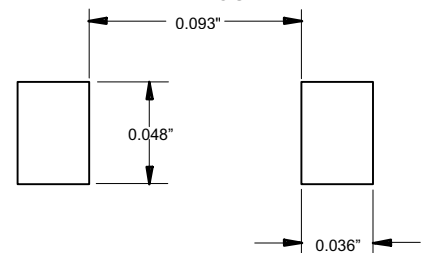
Average Forward Current	$I_{F(AV)}$	0.5A	$T_A=50^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	5.5A	8.3ms half sine
Maximum Instantaneous Forward Voltage MBR0520 MBR0530 MBR0540 MBR0560	$V_F$	0.45V 0.55V 0.55V 0.70V	$I_{FM}=0.5A$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.2mA	$T_J=25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	30pF	Measured at 1.0MHz, $V_R=4.0\text{ V}$
Power dissipation	$P_D$	410mW	

### SOD123



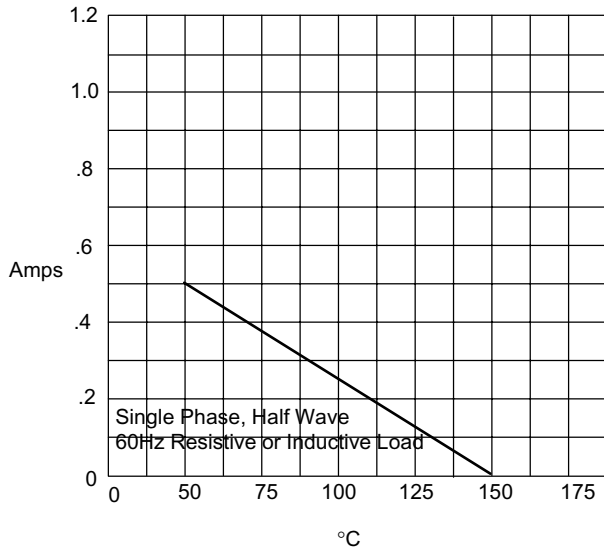
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

#### SUGGESTED SOLDER PAD LAYOUT



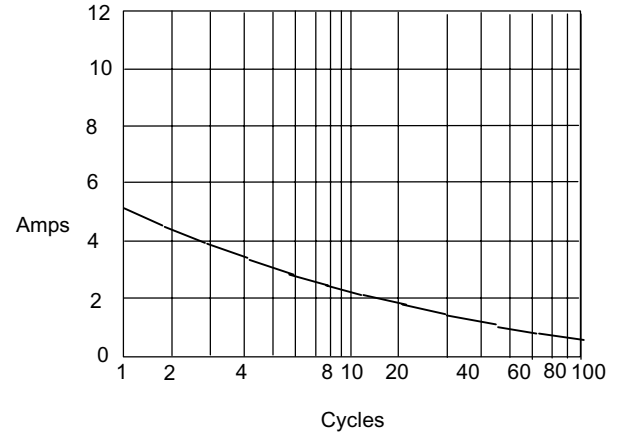
# MBR0520 thru MBR0560

Figure 1  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus Ambient Temperature - °C

Figure 2  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles

Figure 3  
Typical Forward Characteristics  
MBR0520

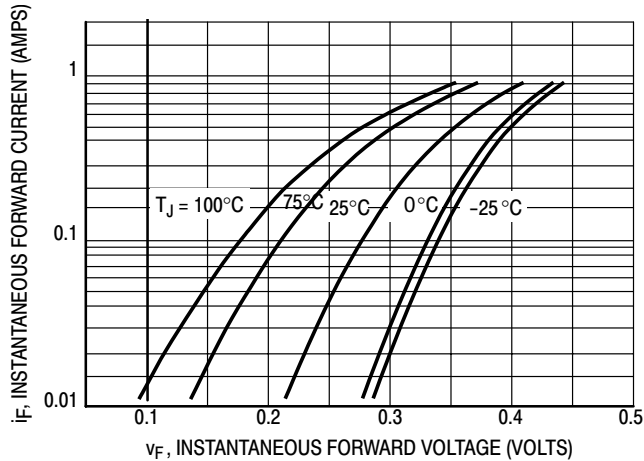


Figure 4  
Typical Forward Characteristics  
MBR0530~MBR0540

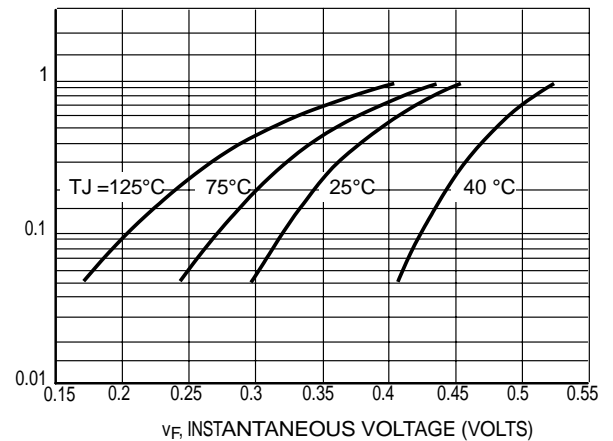
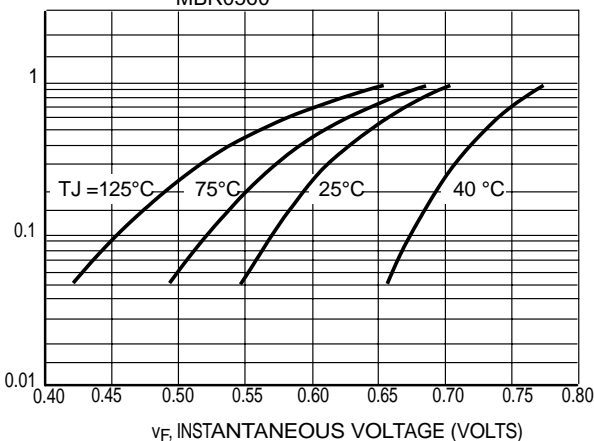


Figure 5  
Typical Forward Characteristics  
MBR0560



## Ordering Information

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

### \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp.* reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes .  
*Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*APPLICATIONS DISCLAIMER\*\*\*

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Micro Commercial Components \(MCC\):](#)

[MBR0540-T](#) [MBR0520-T](#) [MBR0560-T](#) [MBR0530-T](#)