



**THE DATASHEET OF
MBRX02540-TP**





Micro Commercial Components

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MBRX02520 THRU MBRX02560

0.25 Amp Schottky Barrier Rectifier 20 to 60 Volts

Features

- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Extremely Low Thermal Resistance
- Reverse Energy Tested and High Current Capability
- Guard Ring Protection
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

Maximum Ratings

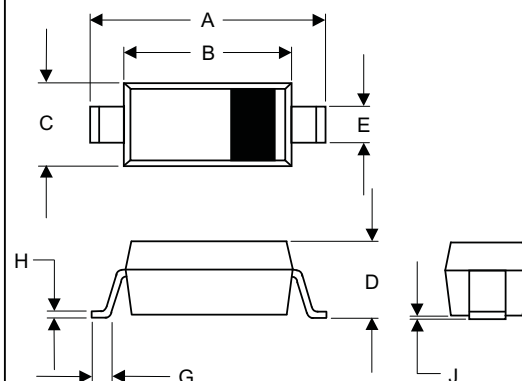
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 65°C/W Junction to Lead

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MBRX02520 | A | 20V | 14V | 20V |
| MBRX02530 | B | 30V | 21V | 30V |
| MBRX02540 | C | 40V | 28V | 40V |
| MBRX02550 | D | 50V | 35V | 50V |
| MBRX02560 | E | 60V | 42V | 60V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

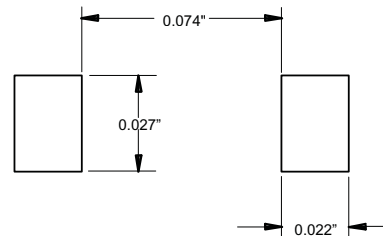
| | | | |
|--|-------------|-------------------------|---|
| Average Forward Current | $I_{F(AV)}$ | 0.25A | $T_J=115^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 5A | 8.3ms half sine |
| Maximum Instantaneous Forward Voltage MBRX02520 MBRX02530-40 MBRX02550-60 | V_F | 0.45V 0.55V 0.70V | $I_{FM}=0.25A$ $T_J=25^\circ\text{C}$ |
| Maximum DC Reverse Current At Rated DC Blocking | I_R | 0.5mA 20mA | $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$ |
| Typical Junction Capacitance | C_J | 10pF | Measured at 1.0MHz, $V_R=4.0V$ |

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



MBRX02520 thru MBRX02560

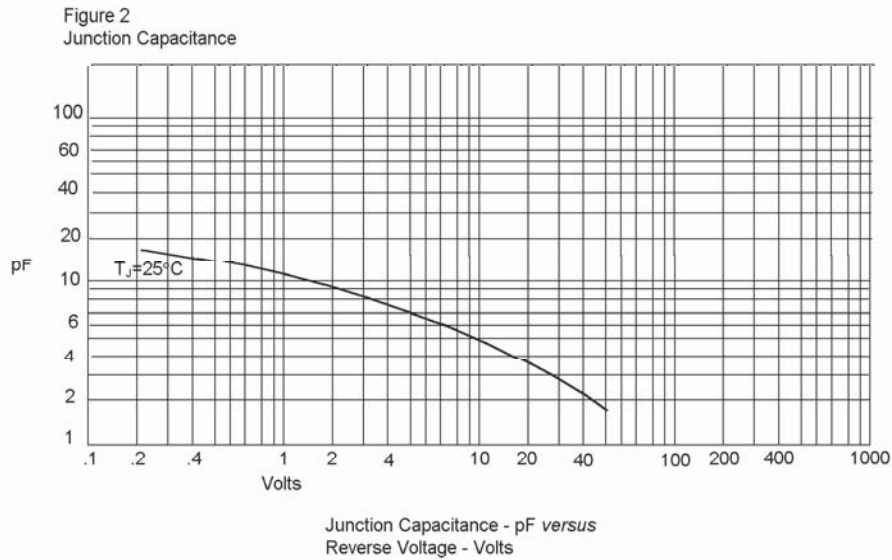
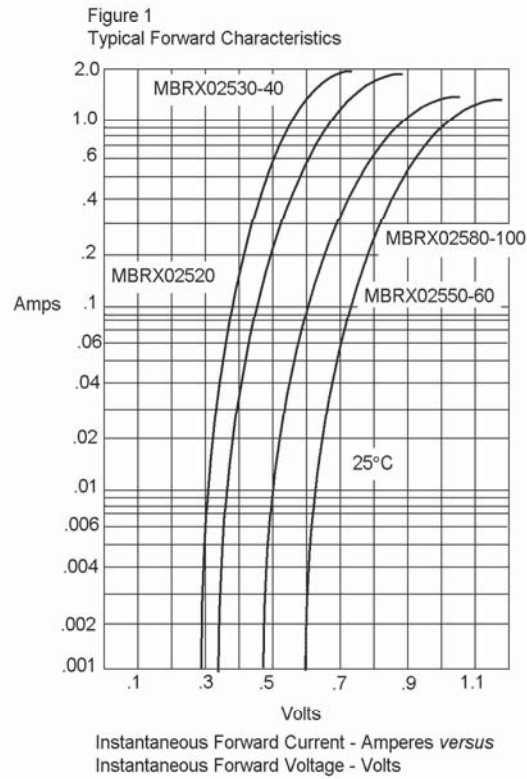
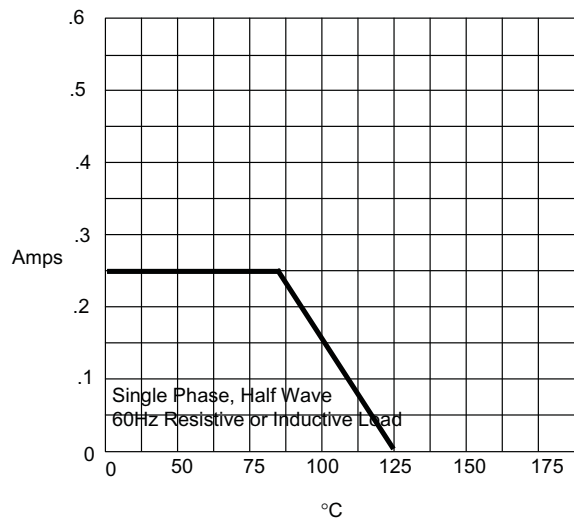
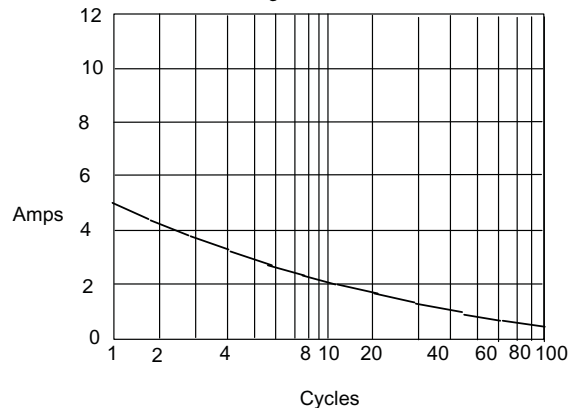


Figure 5
Forward Derating Curve



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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