



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

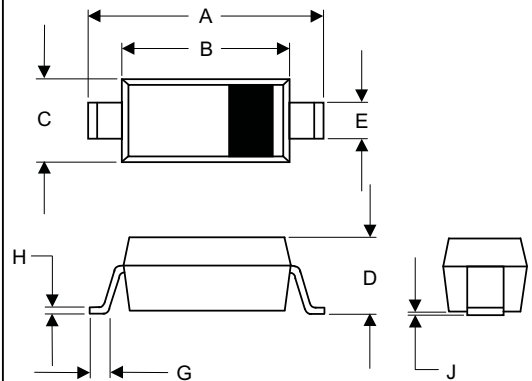
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance: 65°C/W Junction to Lead

| 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

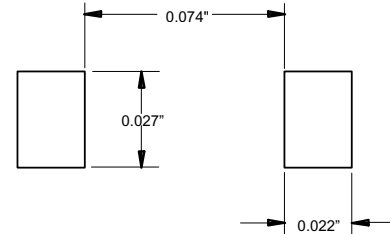
|                                                                                    |             |                         |                                                   |
|------------------------------------------------------------------------------------|-------------|-------------------------|---------------------------------------------------|
| 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<br>MBRX02520<br>MBRX02530-40<br>MBRX02550-60 | $V_F$       | 0.45V<br>0.55V<br>0.70V | $I_{FM}=0.25A$<br>$T_J=25^\circ\text{C}$          |
| Maximum DC Reverse Current At Rated DC Blocking                                    | $I_R$       | 0.5mA<br>20mA           | $T_A=25^\circ\text{C}$<br>$T_A=100^\circ\text{C}$ |
| Typical Junction Capacitance                                                       | $C_J$       | 10pF                    | Measured at 1.0MHz, $V_R=4.0V$                    |

### SOD323

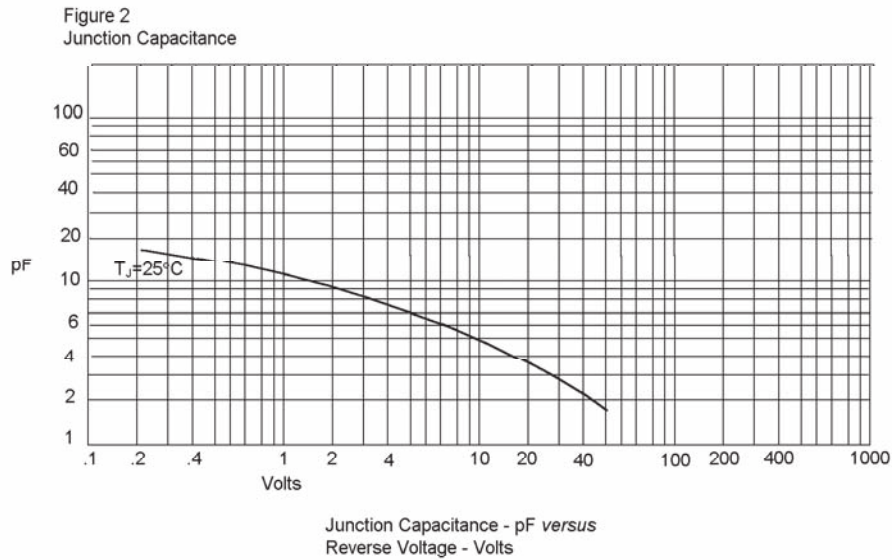
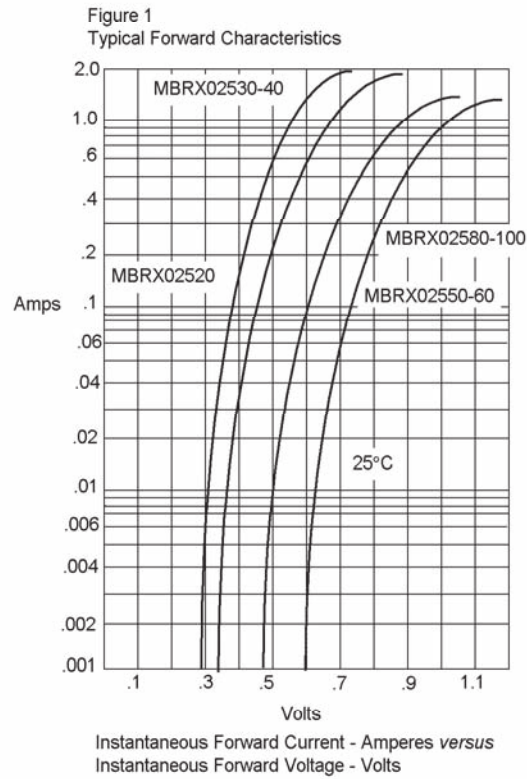


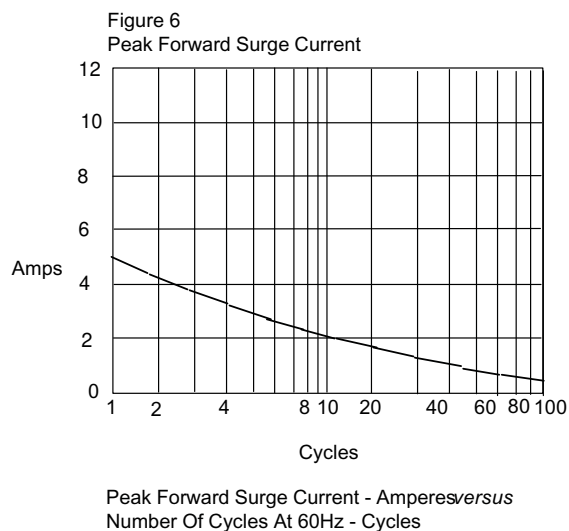
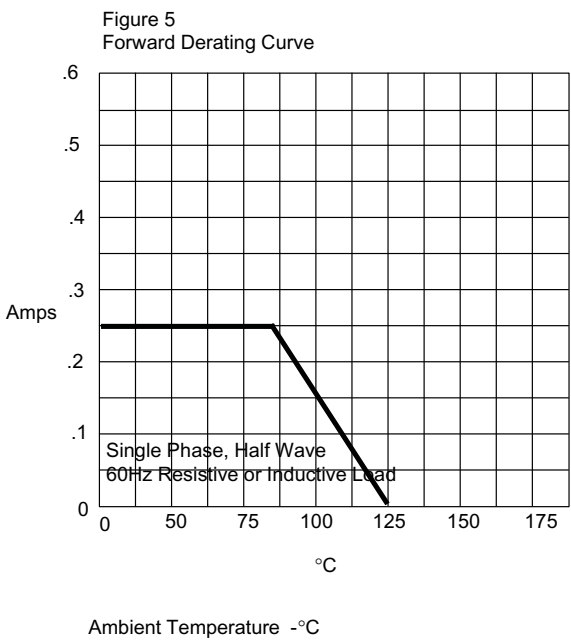
| DIM | INCHES |      | MM    |      | NOTE |
|-----|--------|------|-------|------|------|
|     | MIN    | MAX  | MIN   | MAX  |      |
| A   | .090   | .113 | 2.30  | 2.88 |      |
| B   | .063   | .071 | 1.60  | 1.80 |      |
| C   | .045   | .053 | 1.15  | 1.35 |      |
| D   | .031   | .049 | 0.80  | 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







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## Ordering Information

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

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