

MBR0520L THRU MBR0540L

0.5 Amp Schottky Rectifier 20 to 40 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
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

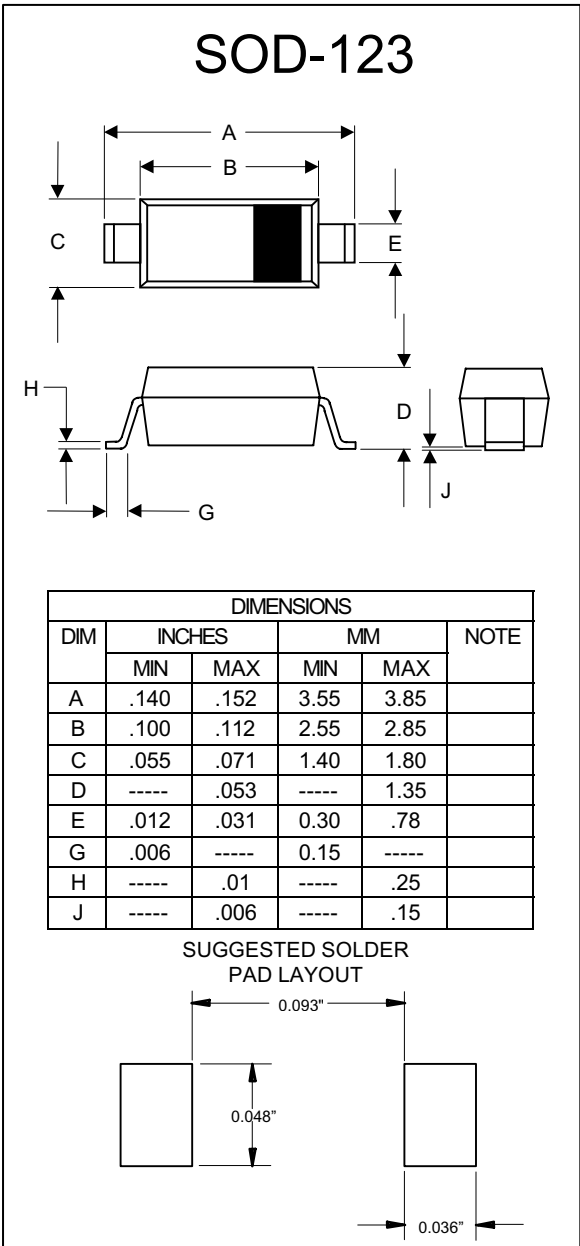
Maximum Ratings

- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance: 305 °C/W Junction to Ambient

| MCC Catalog Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|--------------------|----------------|--|---------------------|-----------------------------|
| MBR0520L | SD | 20V | 14V | 20V |
| MBR0530L | SE | 30V | 21V | 30V |
| MBR0540L | SF | 40V | 28V | 40V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------|--------|-----------------|
| Average Forward Current | I_F | 0.5A | |
| Peak Forward Surge Current | I_{FSM} | 5.5A | 8.3ms half sine |
| Maximum Forward voltage | V_F | 0.3V | $I_F=0.1A$ |
| | | 0.385V | $I_F=0.5A$ |
| | | 0.375V | $I_F=0.1A$ |
| MBR0530L | V_F | 0.43V | $I_F=0.5A$ |
| | | 0.51V | $I_F=0.5A$ |
| MBR0540L | V_F | 0.62V | $I_F=1.0A$ |
| | | | |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 75uA | $V_R=10V$ |
| | | 250uA | $V_R=20V$ |
| | | 20uA | $V_R=15V$ |
| MBR0530L | I_R | 130uA | $V_R=30V$ |
| | | 10uA | $V_R=20V$ |
| MBR0540L | I_R | 20uA | $V_R=40V$ |
| | | | |
| Typical Junction Capacitance | C_J | 170pF | $V_R=0, f=1MHz$ |
| Power Dissipation | P_D | 410mW | |



MBR0520L thru MBR0540L

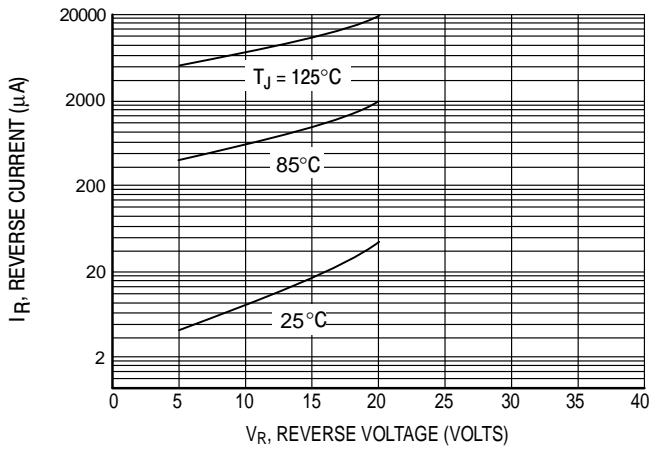


Figure 1. Typical Reverse Current of MBR0520L

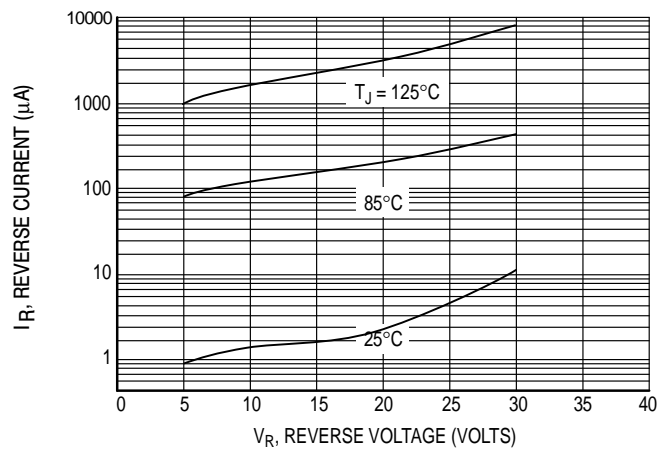


Figure 2. Typical Reverse Current of MBR0530L

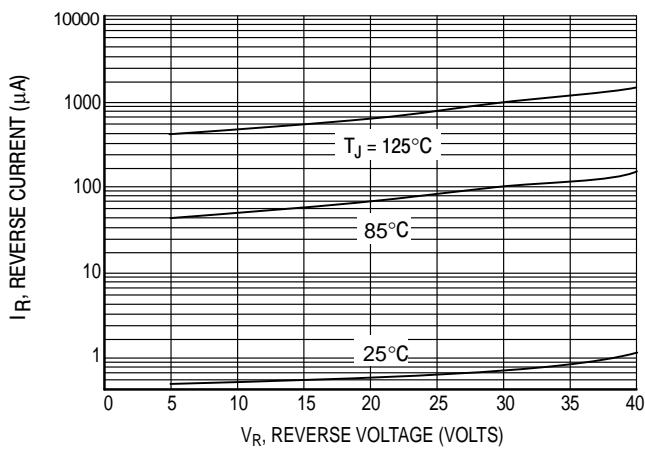


Figure 3. Typical Reverse Current of MBR0540L



TM

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Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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