



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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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

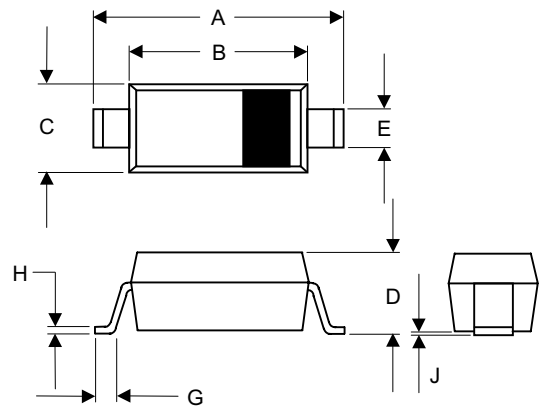
- Operating Temperature: -65°C to +125°C
- Storage Temperature: -65°C to +150°C
- Maximum Thermal Resistance: 305 °C/W Junction to Ambient

| 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

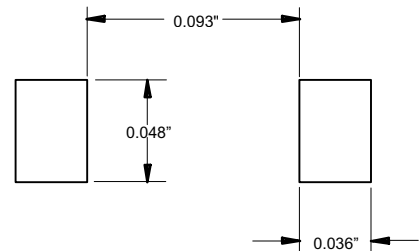
| | | | |
|---|-----------|--------|-----------------|
| Average Forward Current | I_F | 0.5A | |
| Peak Forward Surge Current | I_{FSM} | 5.5A | 8.3ms half sine |
| Maximum Forward voltage | V_F | 0.3V | $I_F=0.1A$ |
| MBR0520L | | 0.385V | $I_F=0.5A$ |
| MBR0530L | | 0.375V | $I_F=0.1A$ |
| | | 0.43V | $I_F=0.5A$ |
| MBR0540L | | 0.51V | $I_F=0.5A$ |
| | | 0.62V | $I_F=1.0A$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 75uA | $V_R=10V$ |
| MBR0520L | | 250uA | $V_R=20V$ |
| MBR0530L | | 20uA | $V_R=15V$ |
| | | 130uA | $V_R=30V$ |
| MBR0540L | | 10uA | $V_R=20V$ |
| | | 20uA | $V_R=40V$ |
| Typical Junction Capacitance | C_J | 170pF | $V_R=0, f=1MHz$ |
| Power Dissipation | P_D | 410mW | |

SOD-123



| 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



MBR0520L thru MBR0540L

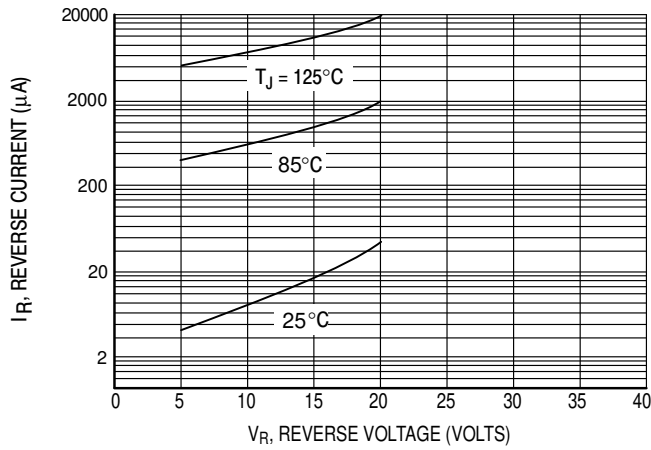


Figure 1. Typical Reverse Current of MBR0520L

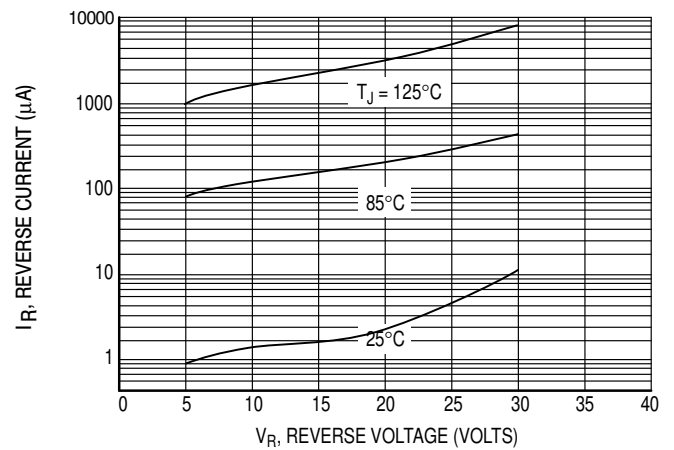


Figure 2. Typical Reverse Current of MBR0530L

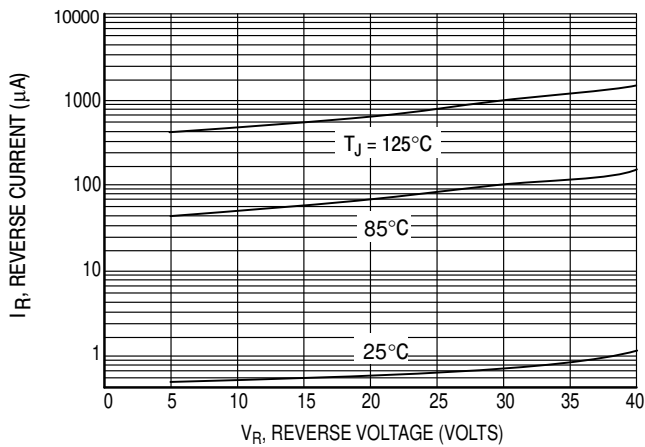


Figure 3. Typical Reverse Current of MBR0540L

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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