

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

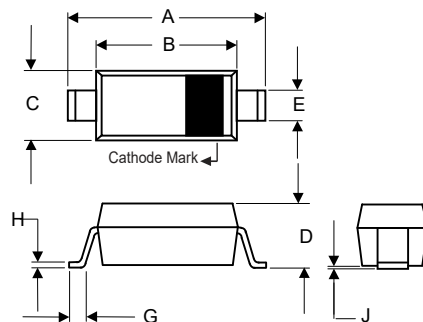
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBR0520L        | SD             | 20V                                    | 14V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

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

|   |             |        |                      |
|---|-------------|--------|----------------------|
| Average Forward Current                                 | $I_{F(AV)}$ | 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 | $I_F=0.5A$           |
|   |             | 0.43V  | $I_F=0.5A$           |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | $I_R$       | 75µA   | $V_R=10V$            |
|   |             | 250µA  | $V_R=20V$            |
|   |             | 20µA   | $V_R=15V$            |
| Typical Junction Capacitance                            | $C_J$       | 170pF  | $V_R=0, f=1MHz$      |
|   |             | 130µA  | $V_R=30V$            |
|   |             | 10µA   | $V_R=20V$            |
| Power Dissipation                                       | $P_D$       | 20µA   | $V_R=40V$            |
|   |             | 5mA    | $T_J=100°C, V_R=40V$ |
|   |             | 410mW  |                      |

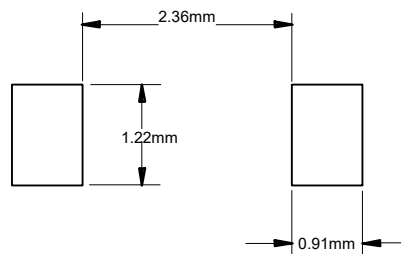
**0.5 Amp Low VF Schottky Rectifier  
20 to 40 Volts**

**SOD-123**



| DIM | INCHES |       | MM   |      | NOTE |
|-----|--------|-------|------|------|------|
|     | MIN    | MAX   | MIN  | MAX  |      |
| A   | 0.140  | 0.152 | 3.55 | 3.85 |      |
| B   | 0.100  | 0.112 | 2.55 | 2.85 |      |
| C   | 0.055  | 0.071 | 1.40 | 1.80 |      |
| D   | ----   | 0.053 | ---- | 1.35 |      |
| E   | 0.018  | 0.026 | 0.45 | 0.65 |      |
| G   | 0.006  | ----  | 0.15 | ---- |      |
| H   | ----   | 0.010 | ---- | 0.25 |      |
| J   | ----   | 0.006 | ---- | 0.15 |      |

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Characteristics

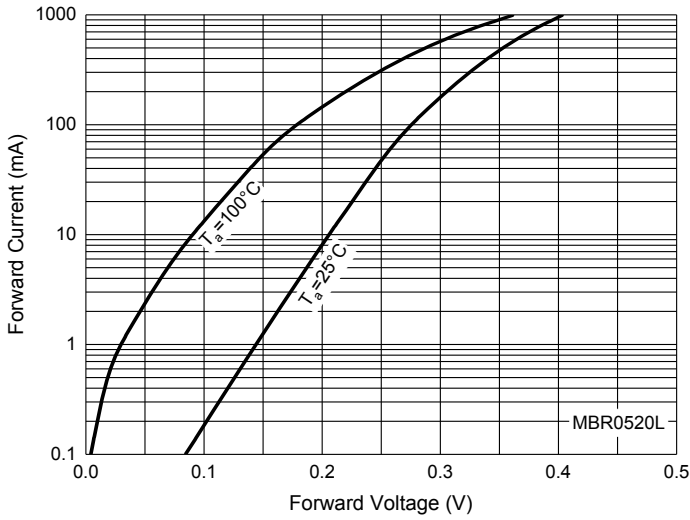


Fig. 2 - Forward Characteristics

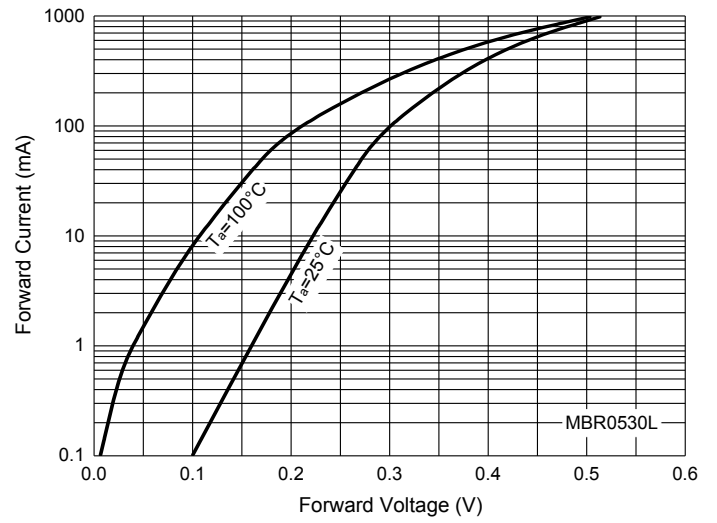


Fig. 3 - Forward Characteristics

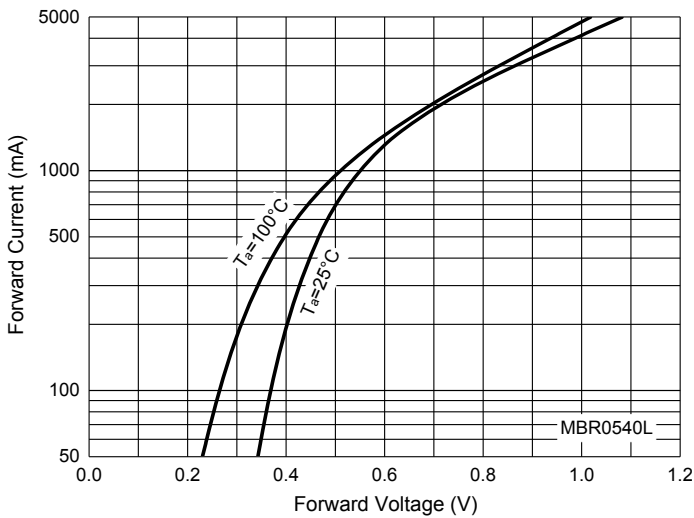


Fig. 4 - Reverse Characteristics

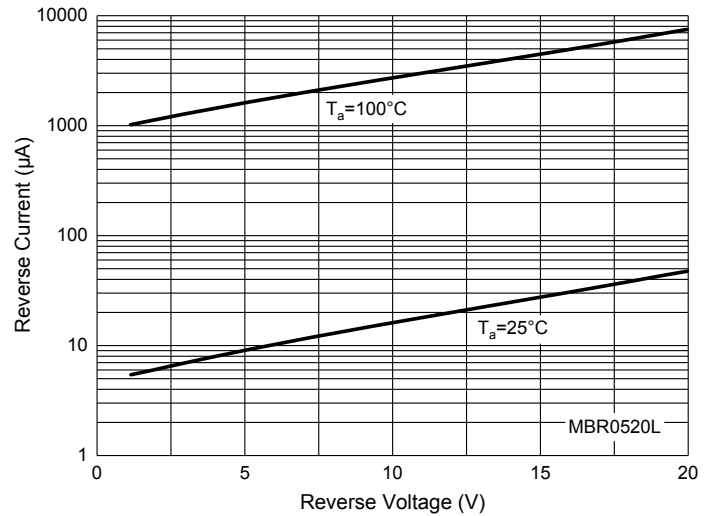


Fig. 5 - Reverse Characteristics

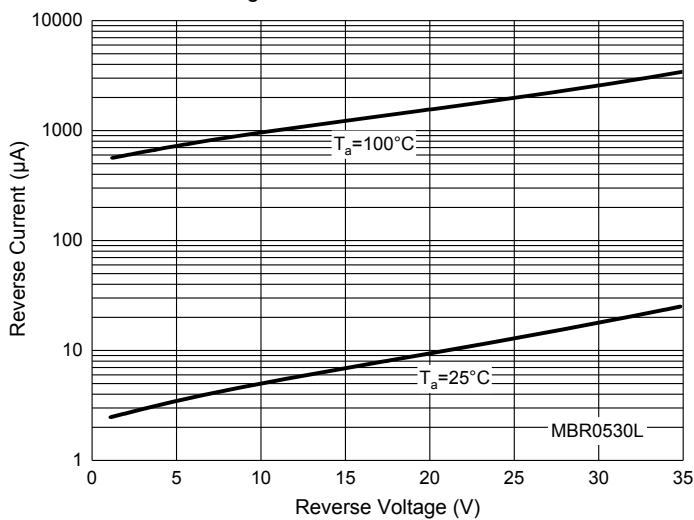
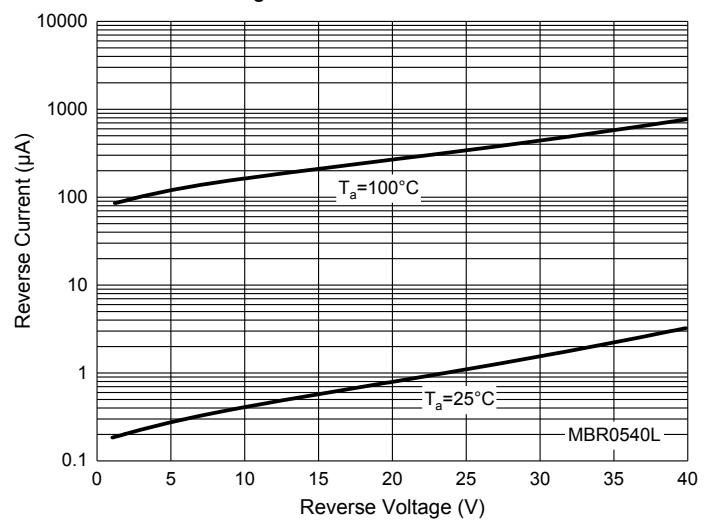


Fig. 6 - Reverse Characteristics



## 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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- Техническая поддержка проекта;
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#### Как с нами связаться

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