

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

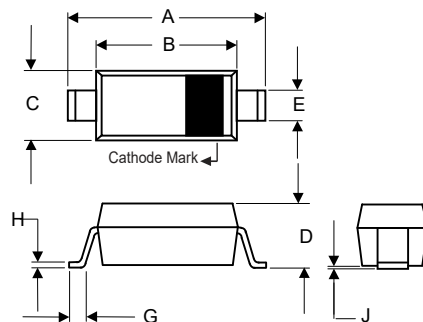
| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBR0520L | SD | 20V | 14V | 20V |
| MBR0530L | SE | 30V | 21V | 30V |
| MBR0540L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

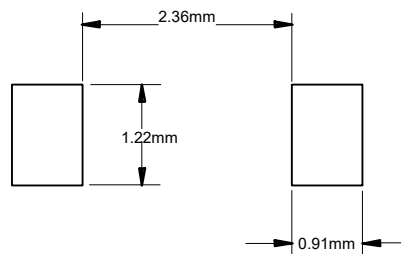
**0.5 Amp Low VF Schottky Rectifier
20 to 40 Volts**

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

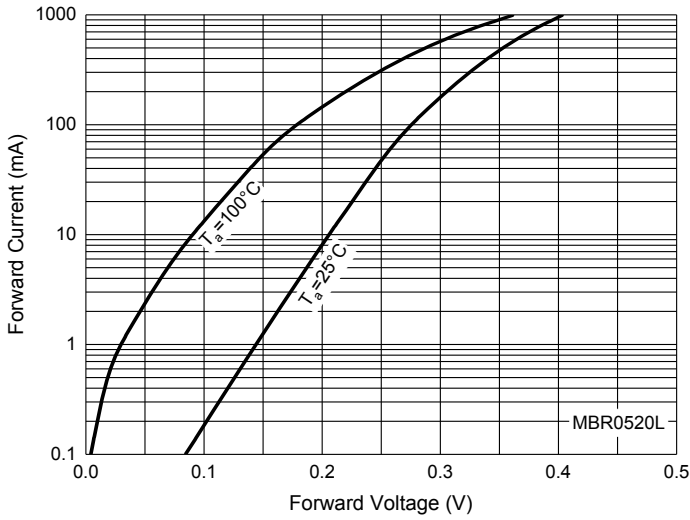


Fig. 2 - Forward Characteristics

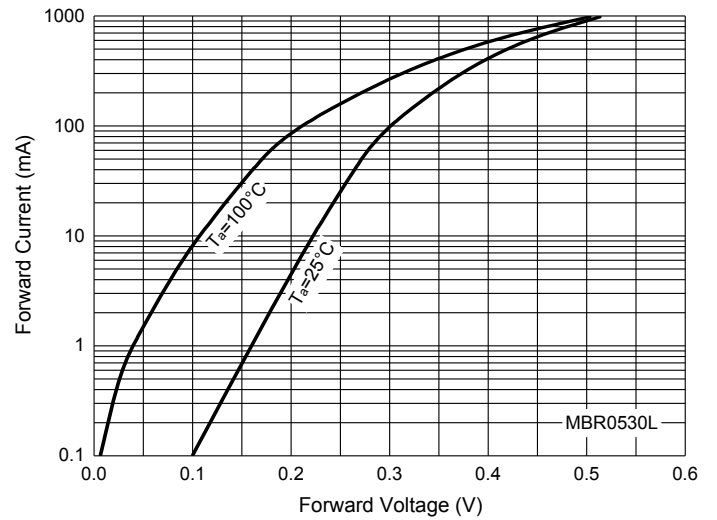


Fig. 3 - Forward Characteristics

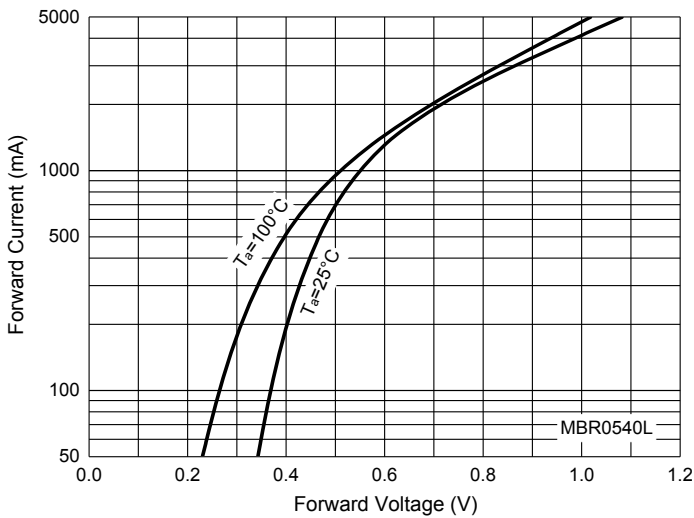


Fig. 4 - Reverse Characteristics

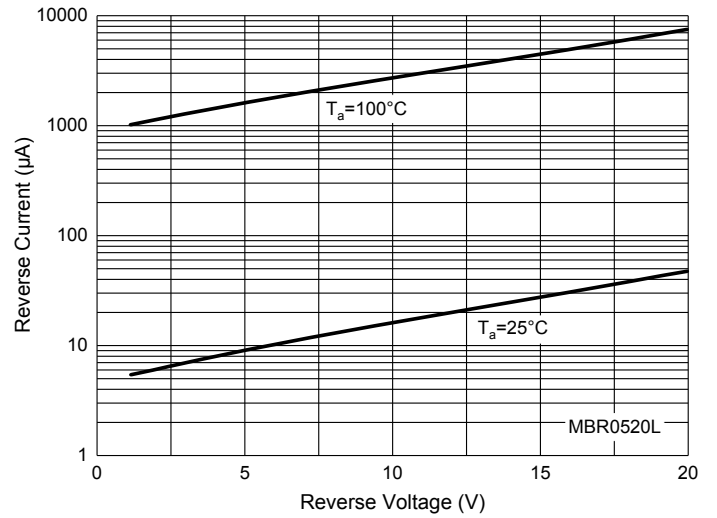


Fig. 5 - Reverse Characteristics

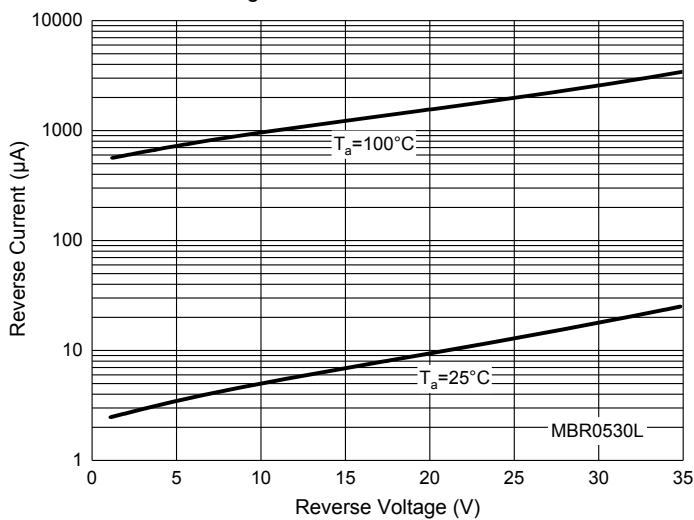
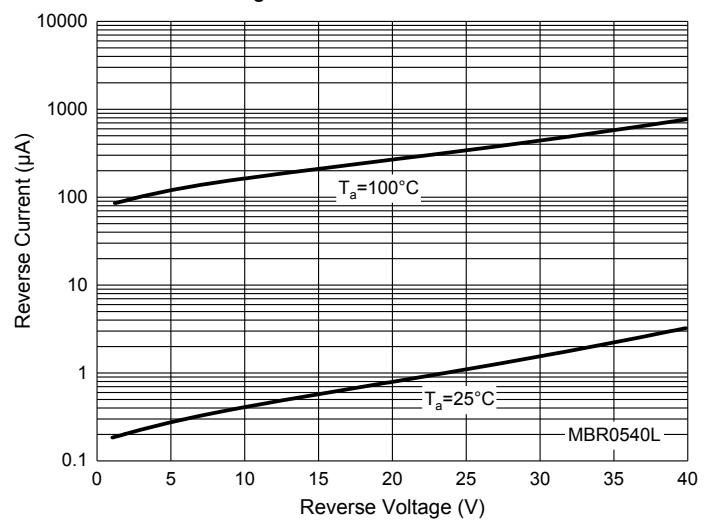


Fig. 6 - Reverse Characteristics



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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- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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