

MBR1045LPS

10 Amp Schottky Barrier Rectifier 45 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- Low forward voltage drop
- Super long operating life
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

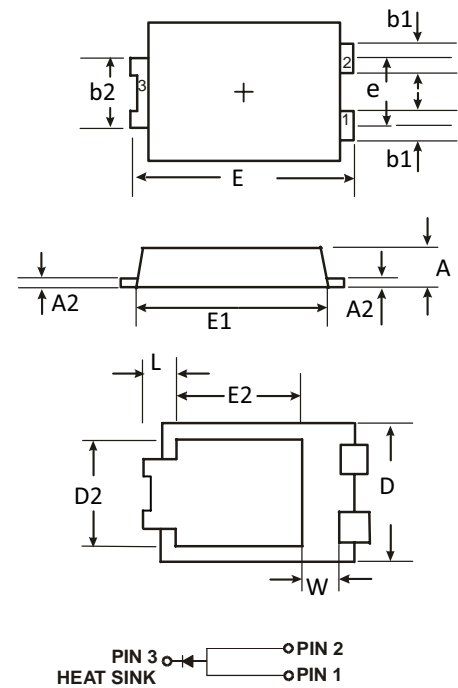
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

| MCC Part Number | Device Marking | Maximum Recurrent Peak Reverse Voltage | Maximum RMS Voltage | Maximum DC Blocking Voltage |
|-----------------|----------------|--|---------------------|-----------------------------|
| MBR1045LPS | 1045L | 45V | 31.5V | 45V |

Electrical Characteristics @ 25°C Unless Otherwise Specified

| | | | |
|---|-----------------|---------------|---|
| Average Forward Current | $I_{F(AV)}$ | 10A | $T_L = 90^\circ\text{C}$ |
| Peak Forward Surge Current | I_{FSM} | 275A | 8.3ms, half sine |
| Repetitive Peak Reverse Current | I_{RRM} | 1A | $t_p = 2\mu\text{s}, f = 1\text{kHz}$ |
| Maximum Forward Voltage Drop Per Element | V_F | .47V | $I_{FM} = 10\text{A}$ |
| Maximum DC Reverse Current At Rated DC Blocking Voltage | I_R | 0.5mA 50mA | $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$ |
| Maximum thermal Resistance | $R_{\theta JC}$ | 8.0°C/W | |
| Repetitive Peak Avalanche Power | P_{ARM} | 10000W | $t_p = 1\mu\text{s}, T_J = 25^\circ\text{C}$ |

TO-277B



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|------|
| | MIN | MAX | MIN | MAX | |
| A | .039 | .047 | 1.00 | 1.20 | |
| A2 | .006 | .017 | 0.15 | 0.43 | |
| b1 | .030 | .041 | 0.75 | 1.05 | |
| b2 | .065 | .077 | 1.65 | 1.95 | |
| D | .148 | .169 | 3.75 | 4.30 | |
| D2 | .110 | .126 | 2.80 | 3.20 | |
| E | .250 | .264 | 6.35 | 6.70 | |
| e | .065 | .077 | 1.65 | 1.95 | |
| E1 | .207 | .228 | 5.25 | 5.80 | |
| E2 | .120 | .142 | 3.05 | 3.60 | |
| L | .028 | .051 | 0.70 | 1.30 | |
| W | .031 | .056 | 0.80 | 1.42 | |

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

MBR1045PS

RATING AND CHARACTERISTIC CUEVES

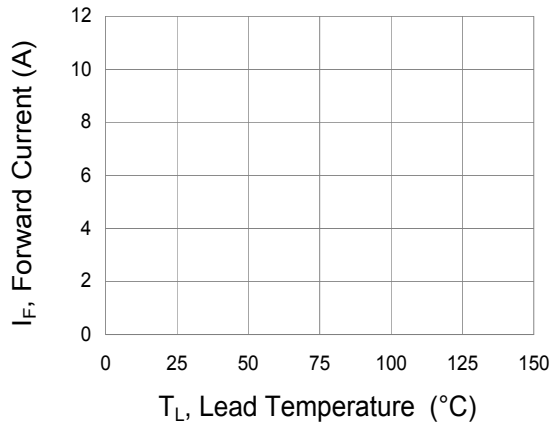


Fig.1 Forward Current Derating Curve

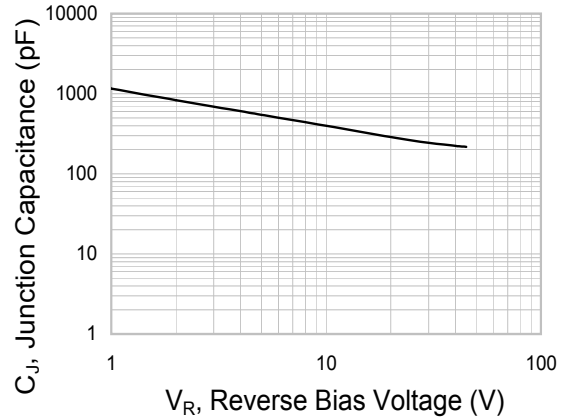


Fig.2 Typical Junction Capacitance

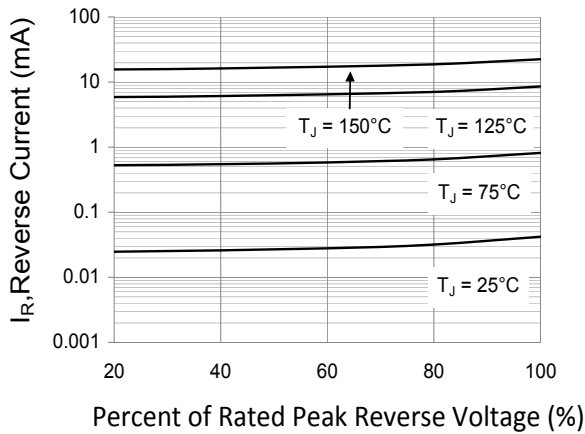


Fig.3 Typical Reverse Characteristics

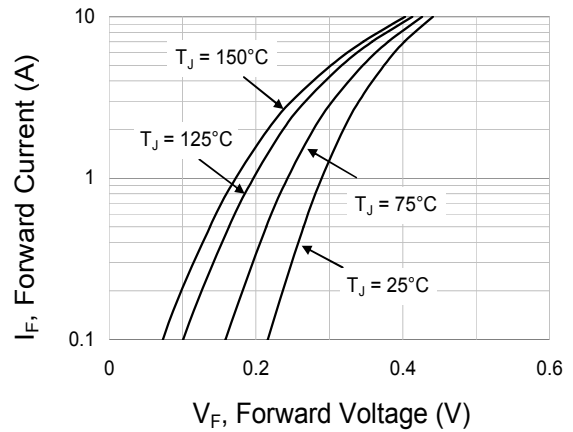


Fig.4 Typical Forward Characteristics



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Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel |

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

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