

MBRX120LF

Features

- Halogen free available upon request by adding suffix "-HF"
- High Surge Capability
- Super Low Forward Voltage Drop
- Low Profile Package
- Lead Free Finish/Rohs Compliant ("P" Suffix designates Compliant. See ordering information)

Mechanical Data

- **Packaging:** JEDEC SOD-123
- **Marking Code:** F02
- Epoxy meets UL 94 V-0 flammability rating
- **Moisture Sensitivity Level 1**

Maximum Ratings

| Symbol | Parameter | Rating | Unit |
|--------------|---|-------------|------|
| $V_{R(RMS)}$ | Maximum RMS Voltage | 14 | V |
| V_{RRM} | Repetitive Reverse Voltage | 20 | V |
| $I_{F(AV)}$ | Average Forward Current | 1 | A |
| I_{FSM} | Surge Forward Current at 8.3ms | 12 | A |
| R_{thJa} | Typical Thermal Resistance ⁽¹⁾ | 60 | °C/W |
| R_{thJa} | Typical Thermal Resistance ⁽²⁾ | 180 | °C/W |
| P_d | Power Dissipation ⁽¹⁾ | 1.67 | W |
| P_d | Power Dissipation ⁽²⁾ | 556 | mW |
| $T_{STG\&J}$ | Junction & Storage Temperature | -65 to +125 | °C |

Electrical Characteristics @ 25°C Unless Otherwise Specified

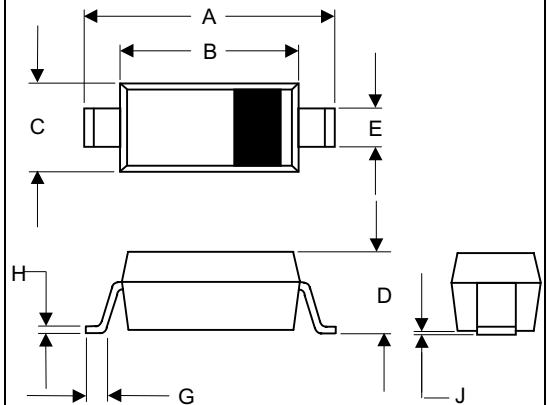
| Symbol | Parameter | Min | Typ | Max | Units |
|--------|---|-----|--------------------|------|-------|
| V_F | Forward Voltage @0.1A @0.7A @1A | | 0.2 0.3 0.32 | 0.36 | V |
| I_R | Leakage Current @VR=5V @VR=20V | | 0.26 | 1 | mA |
| C_T | Typical Junction Capacitance @f=1.0MHz, Vr=10V | | 75 | | PF |

Note

1. Part mounted on 50.8mm X 50.8mm GETEK board with 25.4mm X 25.4mm copper pad. $T_A = 25^\circ C$.
2. Part mounted on FR-4 board with 1.8mm X 2.5mm copper pads. $T_A = 25^\circ C$.

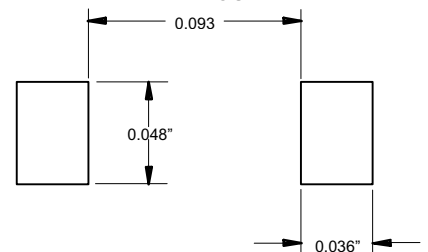
Low Forward Voltage Drop Schottky Barrier Diodes

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



MBRX120LF

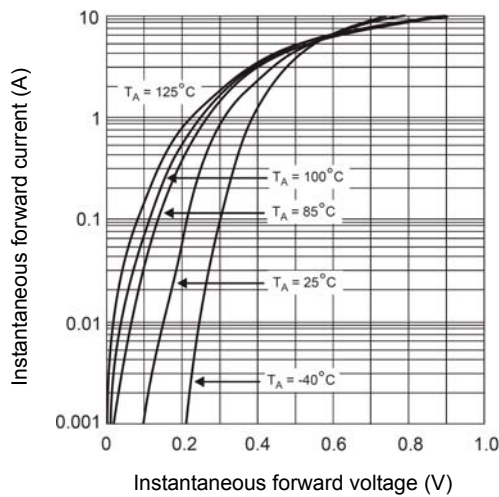


Fig.1 Typical forward characteristics

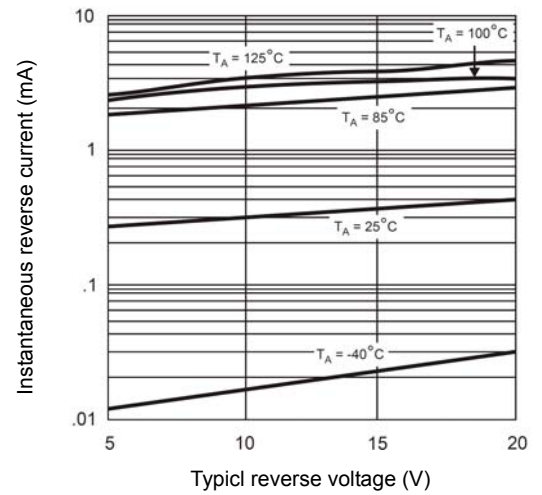


Fig.2 Typical reverse characteristics

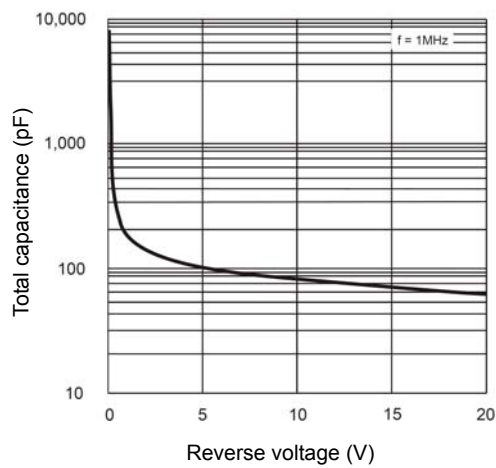


Fig.3 Typical total capacitance



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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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