

MURS105 THRU MURS160

**ULTRAFAST EFFICIENT
GLASS PASSIVATED RECTIFIER**
VOLTAGE:50 TO 600V CURRENT: 1.0A

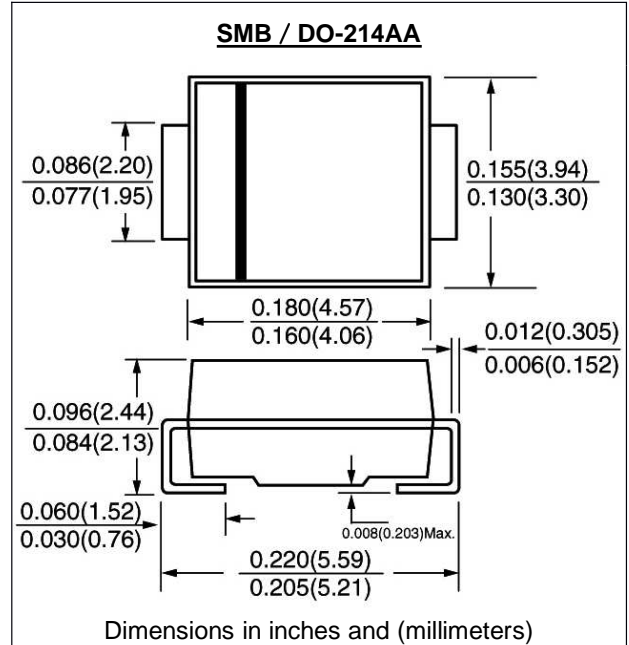


FEATURE

Ultrafast Nanosecond Recovery Times
150°C Operating Junction Temperature
Low Forward Voltage
Low Leakage Current
High Temperature Glass Passivated Junction

Mechanical Characteristics

Case: JEDEC SMB/DO-214AA molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mark: M105B M110B M120B M130B M140B M160B



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

| | SYMBOL | MURS 105 | MURS 110 | MURS 120 | MURS 130 | MURS 140 | MURS 160 | units |
|---|-----------------------------------|-------------|----------|----------|----------|----------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{rrm} | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | V _{rms} | 35 | 70 | 140 | 210 | 280 | 420 | V |
| Maximum DC blocking Voltage | V _{dc} | 50 | 100 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Rectified Current 3/8"lead length at TL =125°C | I _{f(av)} | 1.0 | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I _{fsm} | 40 | | | 35 | | | A |
| Maximum Forward Voltage at rated Forward Current and 25°C | V _f | 0.875 | | | 1.25 | | | V |
| Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =125°C | I _r | 10 | | | 150 | | | μA |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 25 | | | 50 | | | nS |
| Typical Junction Capacitance (Note 2) | C _j | 25 | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R _{th(jl)} | 13 | | | | | | °C /W |
| Storage and Operating Temperature Range | T _{stg} , T _j | -55 to +150 | | | | | | °C |

Note:

1. Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Thermal Resistance from Junction to Ambient at 3/8"lead length, P.C. Board Mounted

Fig. 1 — Forward Current Derating Curve

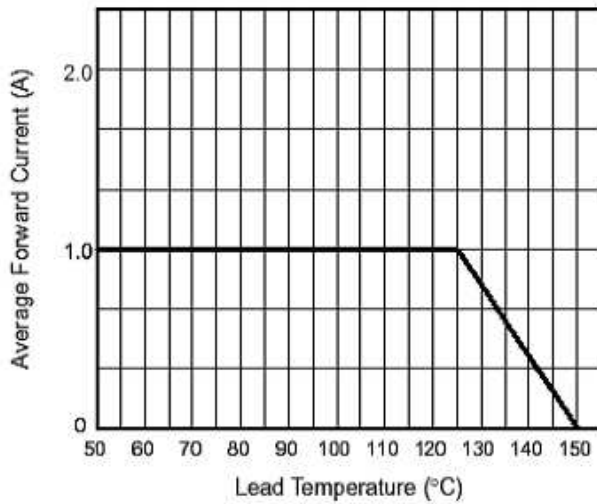


Fig. 2 — Maximum Non-Repetitive Peak Forward Surge Current

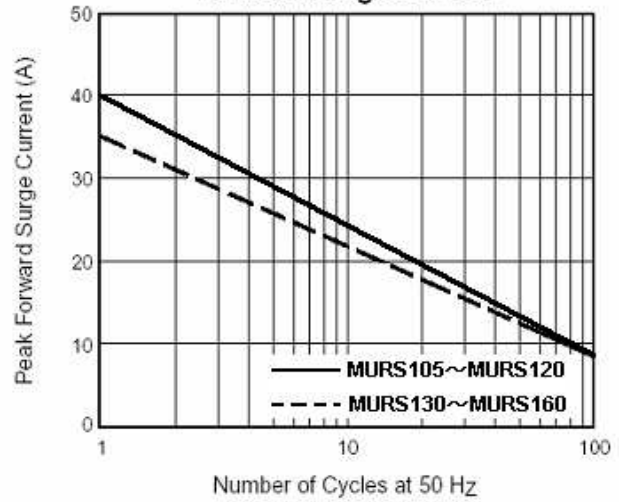


Fig. 3 — Typical Instantaneous Forward Characteristics

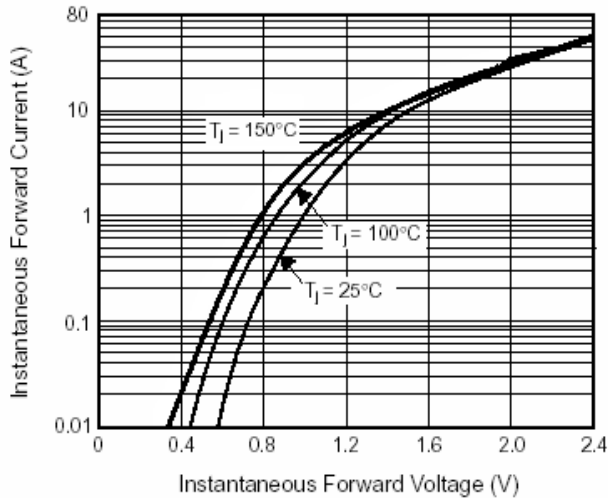


Fig. 4 — Typical Reverse Leakage Characteristics

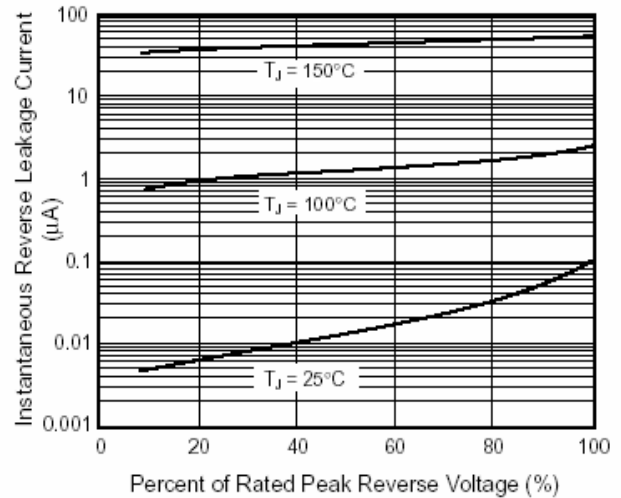


Fig. 5 — Typical Junction Capacitance

