

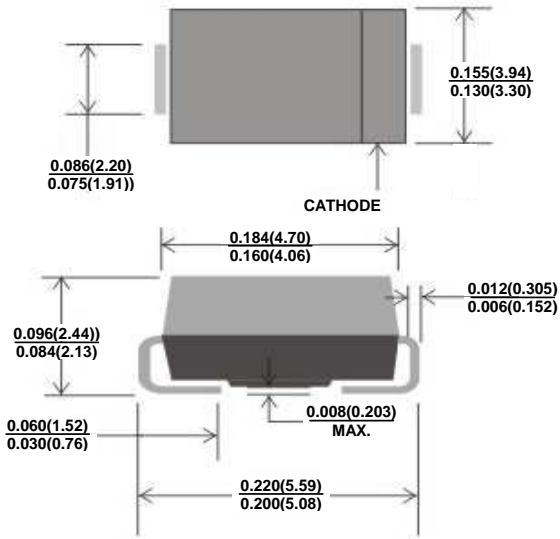


MURS205 THRU MURS260

SURFACE MOUNT ULTRA FAST RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 2.0 Ampere

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited for automatic insertion
- ◆ Low power loss, high efficiency
- ◆ Pb free product : 99% Sn above can meet RoHS environment substance directive request
- ◆ High forward surge current capability
- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass Passivated Chip Junction

MECHANICAL DATA

Case: JEDEC DO-214AA, Molded plastic.

Terminals: Solderable per MIL-STD-750 Method 2026

Approx. Weight: 0.005 ounce, 0.138 grams

Polarity: Color band denotes cathode end

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| PARAMETER | SYMBOLS | MURS 205 | MURS 210 | MURS 215 | MURS 220 | MURS 240 | MURS 260 | UNITS |
|--|-----------------|-------------|----------|----------|----------|----------|----------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 150 | 200 | 400 | 600 | Volts |
| Maximum RMS voltage | V_{RMS} | 35 | 70 | 105 | 140 | 280 | 420 | Volts |
| Minimum Reverse Breakdown Voltage | V_R | 50 | 100 | 150 | 200 | 400 | 600 | Volts |
| Average Rectified current at $T_L = 75^\circ\text{C}$ | $I_{(AV)}$ | 2.0 | | | | | | Amp |
| Non-repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 40 | | | | 35 | | Amps |
| Maximum Forward Voltage at $I_F = 2.0\text{A}$ | V_F | 0.900 | | | | 1.500 | | Volts |
| Reverse Leakage Current at V_{RRM} | I_R | 2.0 | | | | 5.0 | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 20 | | | | 50 | | nS |
| Typical Thermal Resistance (NOTE 3) | $R_{\theta JA}$ | 50 | | | | | | $^\circ\text{C/W}$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -65 to +175 | | | | | | $^\circ\text{C}$ |

- Note:**
1. Reverse recovery condition $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$
 2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 3. Mounted with minimum recommended padsize · PCBoard FR4.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

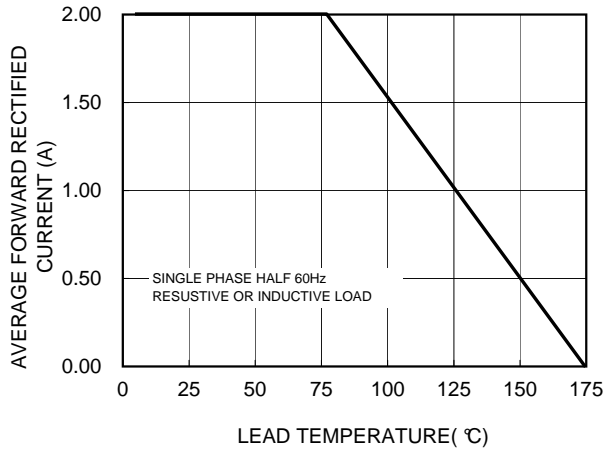


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

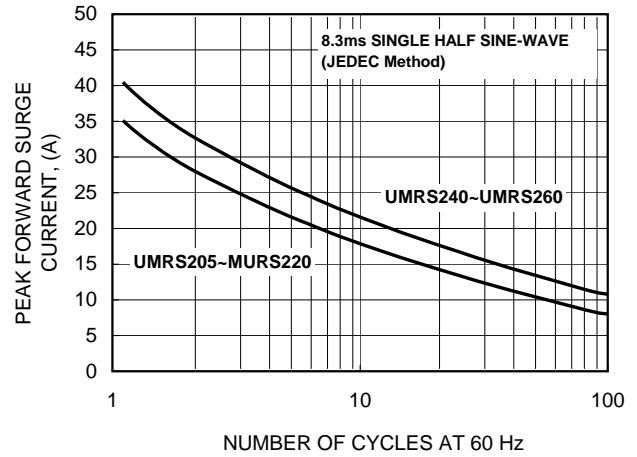


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

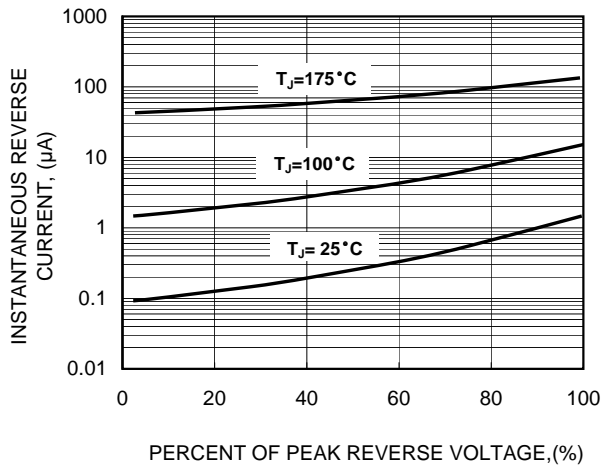


FIG. 4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

