

ULTRAFAST RECTIFIER

MURS220A-240A

FEATURES

- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Ultrafast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

Case: SMC Molded plastic

Epoxy: UL94V-O rate flame retardant

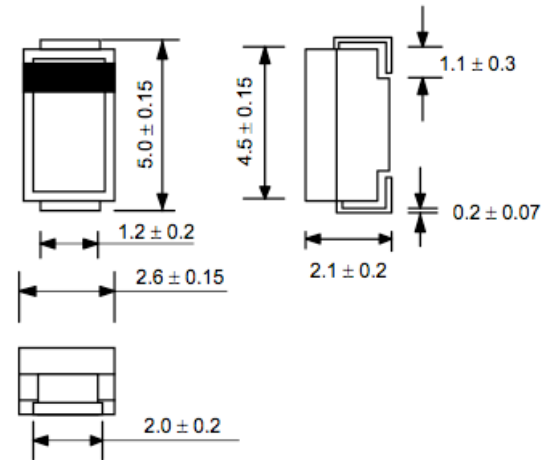
Lead: Lead Formed for Surface Mount

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.24 gram

SMA (DO-214AC)



Dimensions in millimeters

| | SYMBOL | MURS220A | MURS230A | MURS240A | UNITS |
|---|-----------------|-------------|----------|----------|--------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 200 | 400 | 600 | Volts |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | Volts |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | Volts |
| Maximum average forward rectified current | $I_{O(AV)}$ | 2.0 | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 40.0 | | | Amps |
| Maximum instantaneous forward voltage at 2.0A DC | V_F | 1.3 | | | Volts |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 5.0 | | | μA |
| $T_A=25^\circ C$ | | 100.0 | | | |
| Typical junction capacitance (NOTE 1) | C_J | 15.0 | | | pF |
| Typical reverse recovery time (NOTE 2) | t_{rr} | 75 | | | ns |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 80.0 | | | $^\circ C/W$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | | | $^\circ C$ |

NOTES:

- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
- (2) Reverse recovery test conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
- (3) Thermal resistance from junction to ambient

Ratings and Characteristic Curves

FIG. 1 FORWARD DERATING CURVE

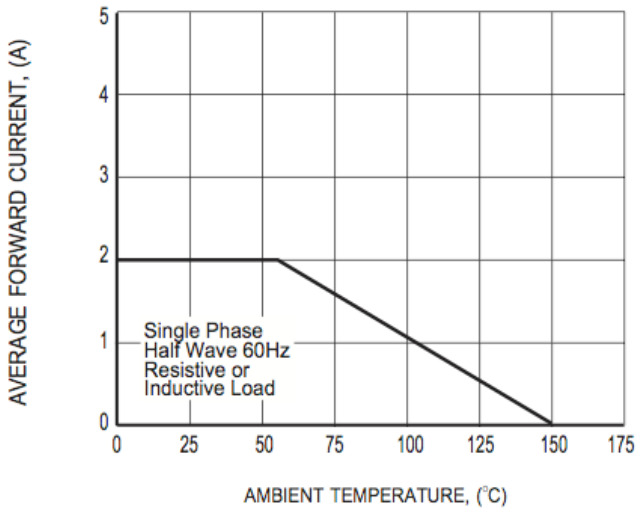


FIG. 2 PEAK FORWARD SURGE CURRENT

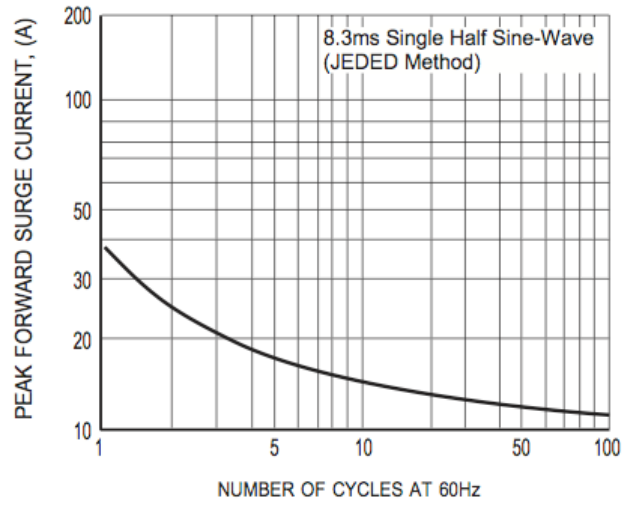


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

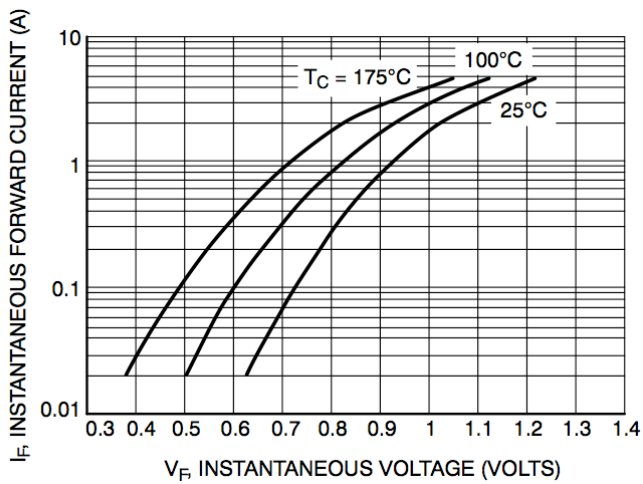


FIG. 4 TYPICAL REVERSE CURRENT

