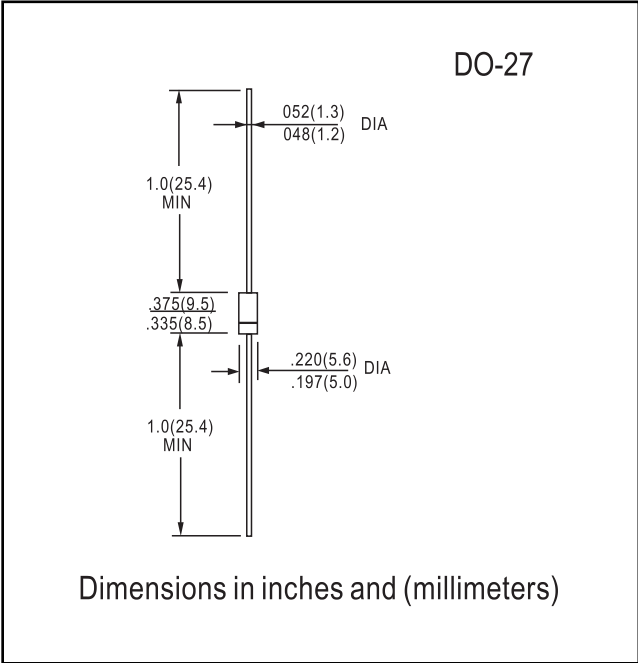


FEATURES

- Superfast recovery times-epitaxial construction
- Low forward voltage, high current capability
- Exceeds environmental standards of MIL-S-19500/228
- Hermetically sealed
- Low leakage
- High surge capability
- Plastic package has Underwriters Laboratories
- Flammability Classification 94V-O utilizing
- Flame Retardant Epoxy Molding Compound

MECHANICAL DATA

Case: Molded plastic, DO-201AD
 Terminals: Axial leads, solderable to MIL-STD-202,
 Method 208
 Polarity: Color Band denotes cathode end
 Mounting Position: Any
 Weight: 0.04 ounce, 1.12 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER | SYMBOL | ER500 | ER501 | ER501A | ER502 | ER503 | ER504 | ER506 | UNITS |
|---|-----------------|-------|-------|--------|-------------|-------|-------|-------|----------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ C$ | $I_{F(AV)}$ | 5.0 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 150 | | | | | | | A |
| Maximum Forward Voltage at 5.0A | V_F | 0.95 | | | 1.25 | | 1.70 | | V |
| Maximum DC Reverse Current $T_j=25^\circ C$ at Rated DC Blocking Voltage $T_j=125^\circ C$ | I_R | | | | 1.0 300 | | | | μA |
| Maximum Reverse Recovery Time(Note 1) | t_{rr} | | | | 35 | | | | ns |
| Typical Junction capacitance (Note 2) | C_J | | | | 65 | | | | pF |
| Typical Junction Resistance(Note 3) | $R_{\theta JA}$ | | | | 20 | | | | $^\circ C / W$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | | | | -55 to +150 | | | | $^\circ C$ |

NOTES:1. Reverse Recovery Test Conditions: $I_F=.5A, I_R=1A, I_{rr}=.25A$
 2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
 3. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted

RATINGS AND CHARACTERISTICS CURVES

ER500 THRU ER506

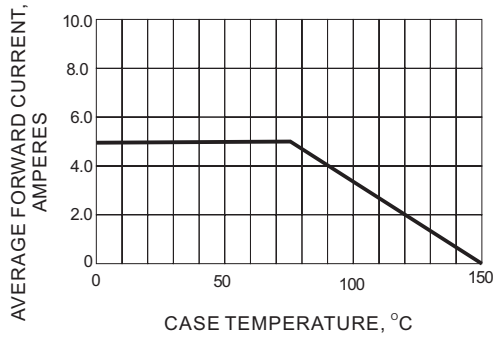
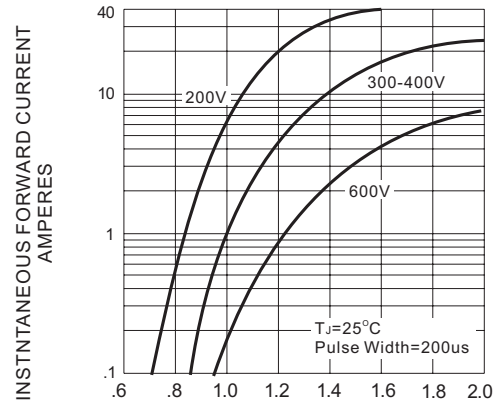


Fig.1-FORWARD CURRENT DERATING CURVE



INSTANTANEOUS FORWARD VOLTAGE ,VOLTS

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

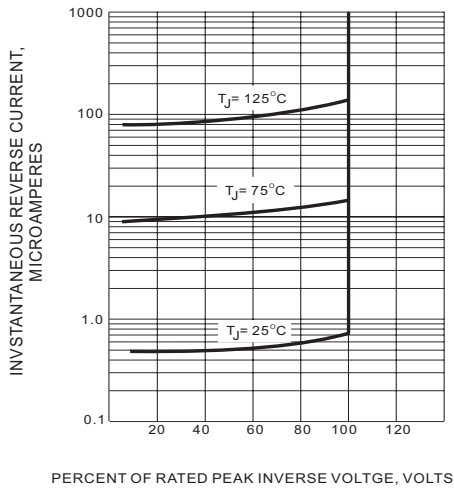


Fig.3-TYPICAL REVERSE CHARACTERISTICS

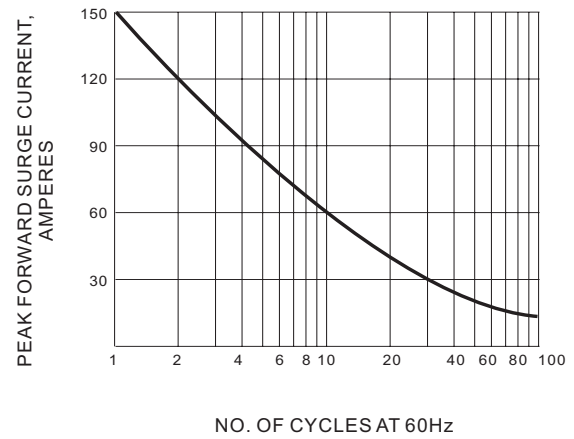


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

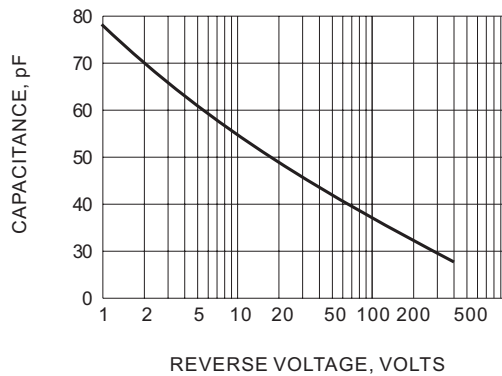


Fig.5-TYPICAL JUNCTION CAPACITANCE