

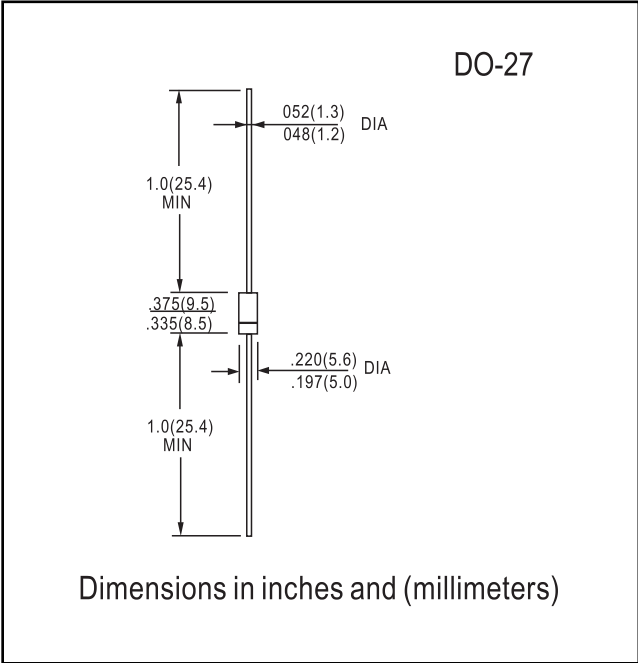


FEATURES

- 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

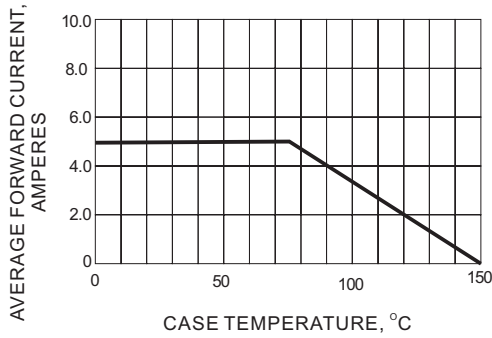
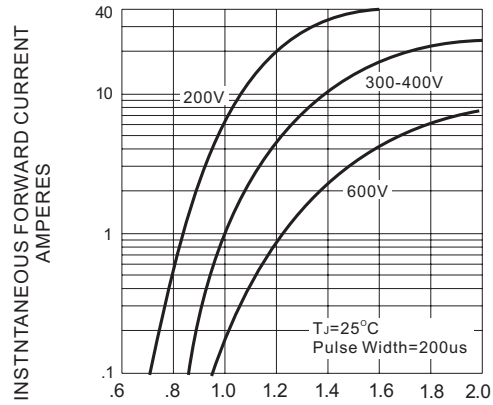
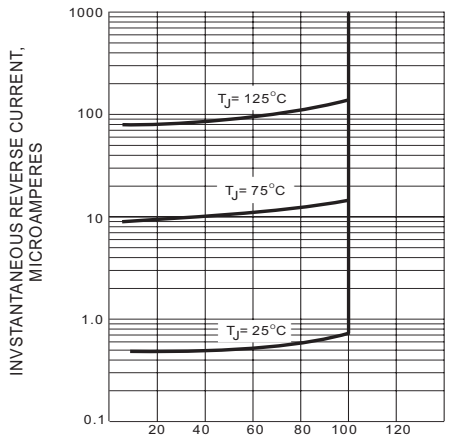


Fig.1-FORWARD CURRENT DERATING CURVE



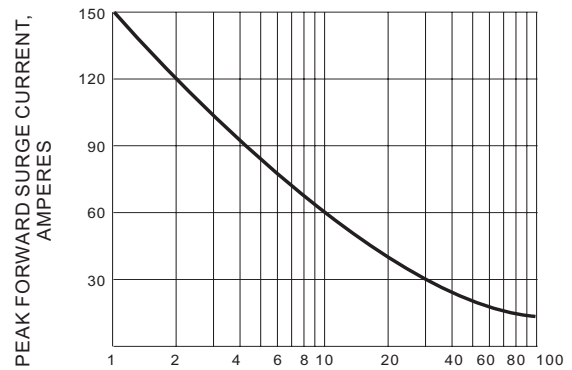
INSTANTANEOUS FORWARD VOLTAGE ,VOLTS

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC



PERCENT OF RATED PEAK INVERSE VOLTGE, VOLTS

Fig.3-TYPICAL REVERSE CHARACTERISTICS



NO. OF CYCLES AT 60Hz

Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

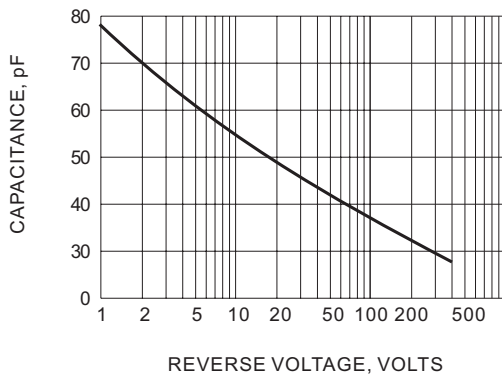


Fig.5-TYPICAL JUNCTION CAPACITANCE