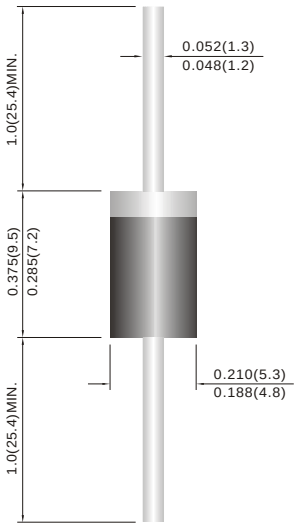
ER500~ER506

SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 600 Volts **CURRENT** 5.0 Amperes

Green

DO-201AD Unit: inch(mm)



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.
- Lead free in comply with EU RoHS 2002/95/EC directives

MECHANICALDATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-750,Method 2026
- Polarity: Color Band denotes cathode end
- Mounting Position: Any

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°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}	130							A
Maximum Forward Voltage at 5.0A	V_F	0.95				1.25		1.70	V
Maximum DC Reverse Current T_J=25°C at Rated DC Blocking Voltage T_J=100°C	I_R	5.0 100							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							°C / W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°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

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RATING AND CHARACTERISTIC CURVES

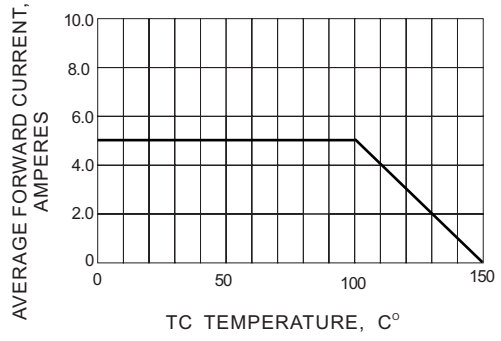

Fig.1-FORWARD CURRENT DERATING CURVE

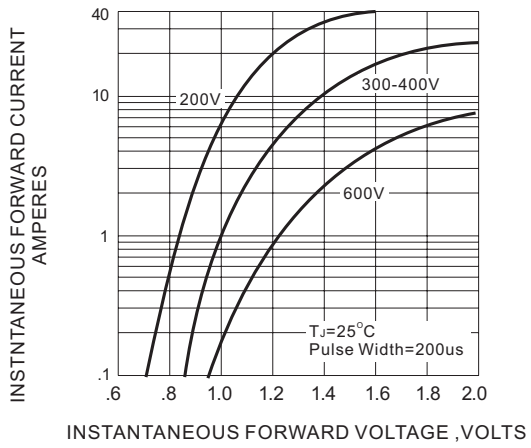

Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

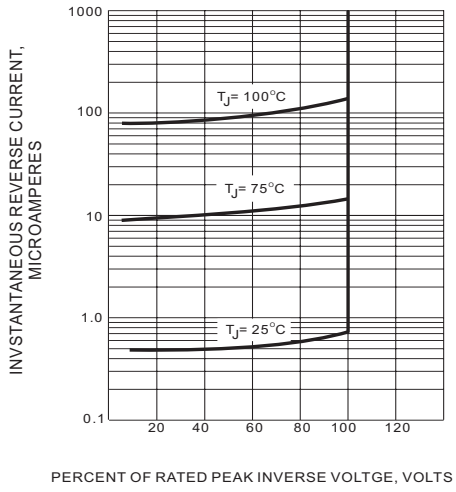

Fig.3-TYPICAL REVERSE CHARACTERISTICS

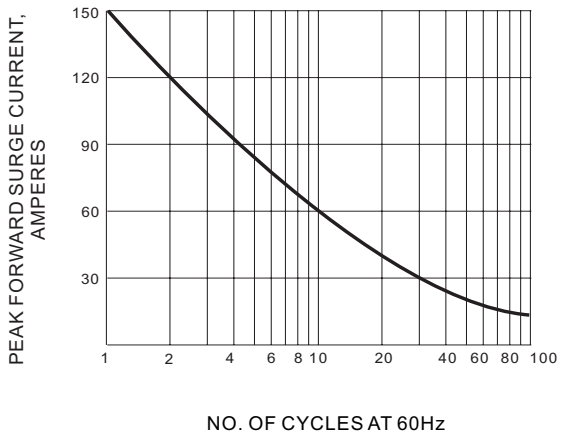

Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

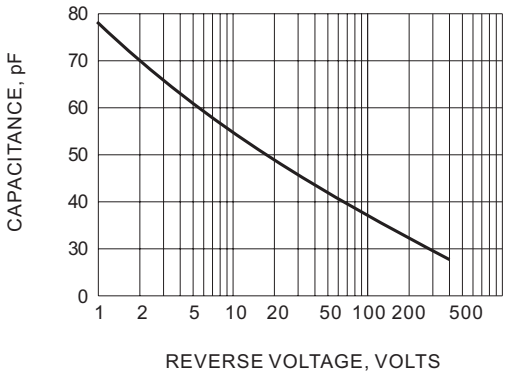

Fig.5-TYPICAL JUNCTION CAPACITANCE