

ER500~ER506

GLASS PASSIVATED JUNCTION SUPERFAST RECOVERY RECTIFIERS

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

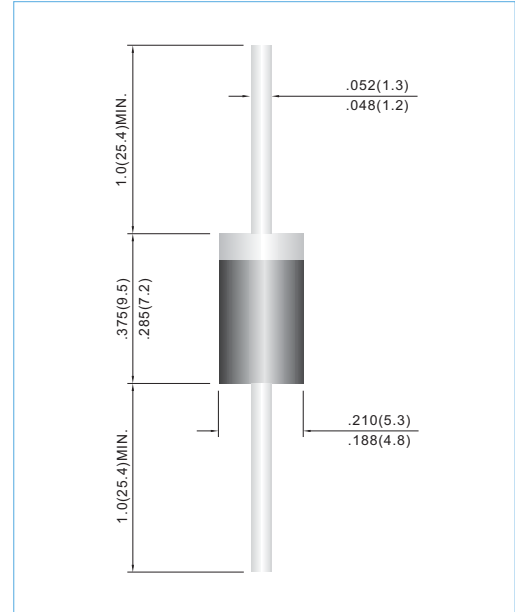
DO-201AD	Unit: inch(mm)
-----------------	----------------

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.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- Mounting Position: Any
- Weight: 0.0395 ounce, 1.122 gram



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}	150							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 =125°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 _{θJA}	20							°C / W
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to +150							°C

NOTES:1. Reverse Recovery Test Conditions: $I_F=5\text{A}$, $I_R=1\text{A}$, $I_{rr}=25\text{A}$

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

ER500~ER506

RATING AND CHARACTERISTIC CURVES

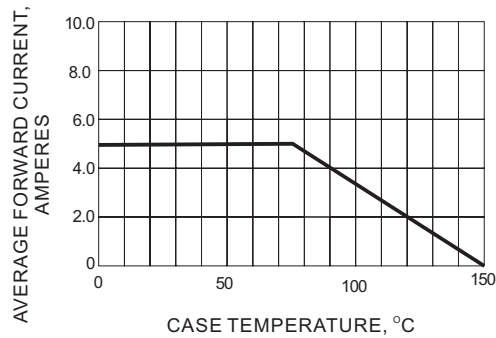


Fig.1-FORWARD CURRENT DERATING CURVE

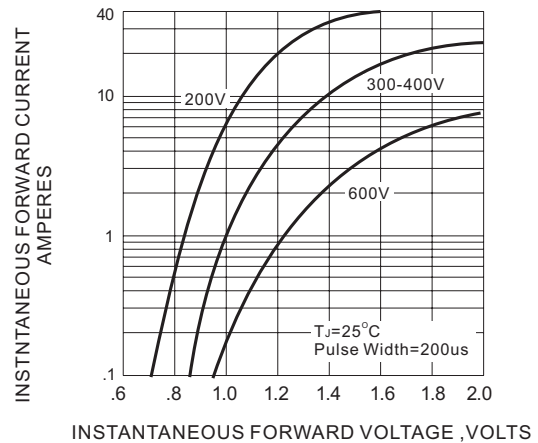


Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

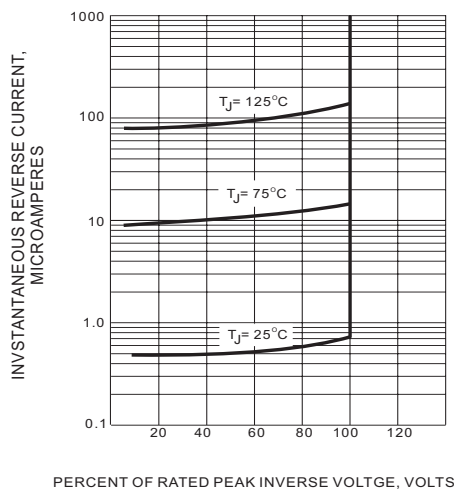


Fig.3-TYPICAL REVERSE CHARACTERISTICS

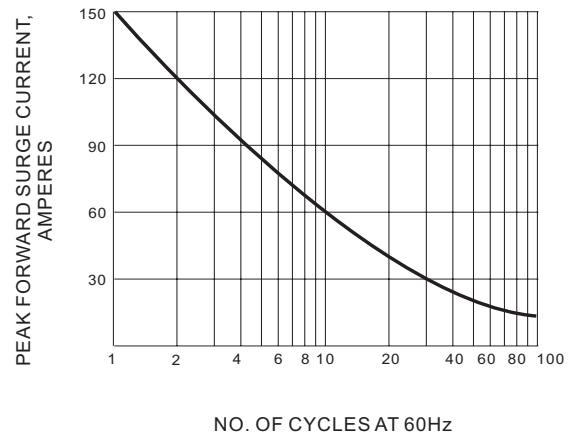


Fig.4-MAXIMUM NON-REPETITIVE SURGE CURRENT

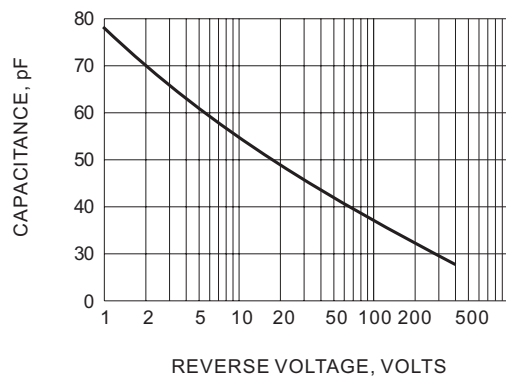


Fig.5-TYPICAL JUNCTION CAPACITANCE