

ER501 THRU ER508

Superfast Recovery Rectifiers

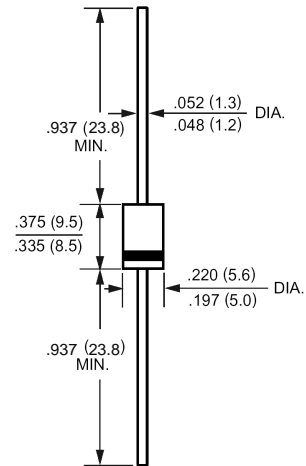
FEATURES

- Glass Passivated chip junction
- 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 compliance with EU RoHS 2011/65/EU directive

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

DO-201AD(DO-27)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	ER501	ER502	ER503	ER504	ER506	ER508	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	200	300	400	600	800	V
Maximum RMS Voltage	V_{RMS}	70	140	210	280	420	610	V
Maximum DC Blocking Voltage	V_{DC}	100	200	300	400	600	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	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	1.0		1.25		1.70	1.85	V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=125^\circ\text{C}$	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						$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150						$^\circ\text{C}$

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

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

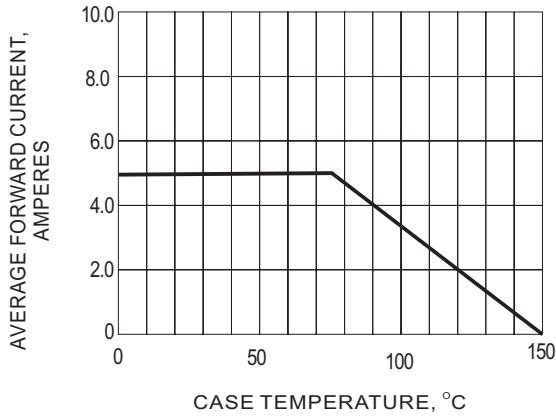


FIG.2 TYPICAL JUNCTION CAPACITANCE

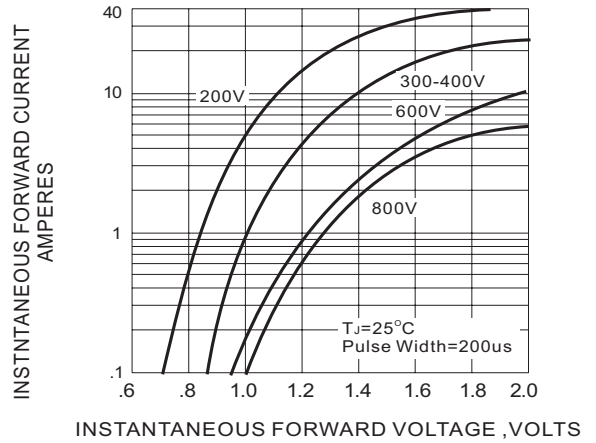


FIG.3 TYPICAL JUNCTION CAPACITANCE

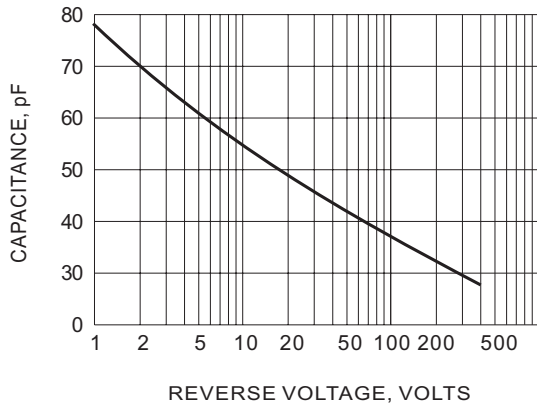


FIG.4 TYPICAL JUNCTION CAPACITANCE

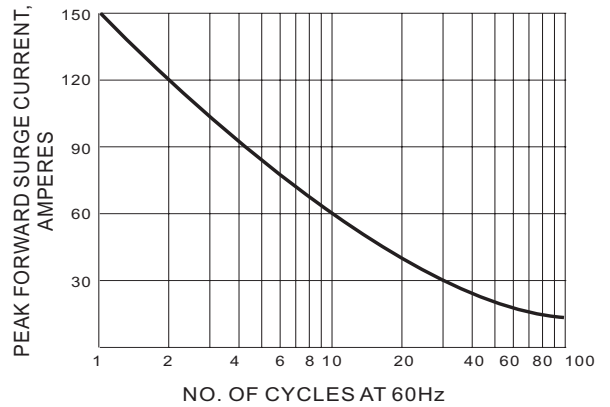


FIG.5 TYPICAL REVERSE CHARACTERISTICS

