ER501G THRU ER508G

Superfast Recovery Rectitiers

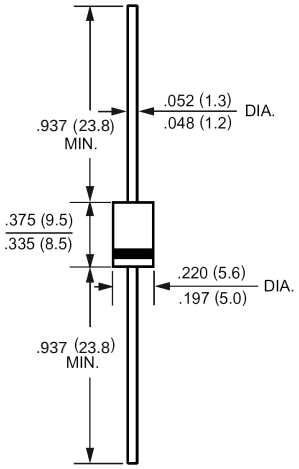
FEATURES

· 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	ER501G	ER502G	ER503G	ER504G	ER506G	ER508G	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°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°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)	$R_{\theta JA}$	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

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

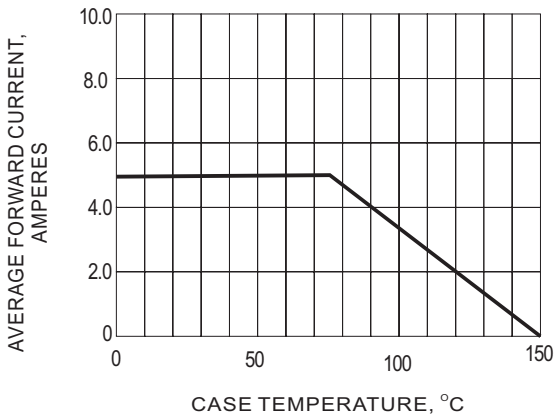


FIG.2 TYPICAL JUNCTION CAPACITANCE

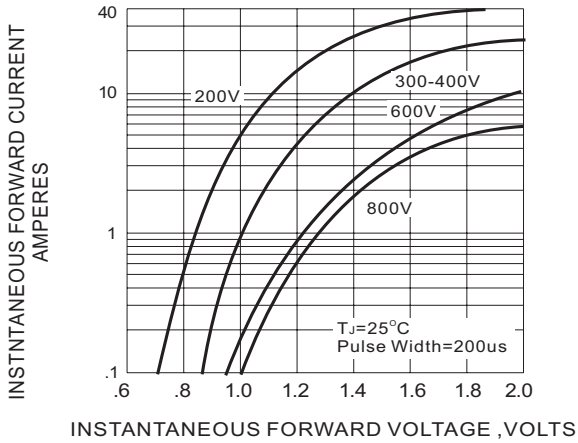


FIG.3 TYPICAL JUNCTION CAPACITANCE

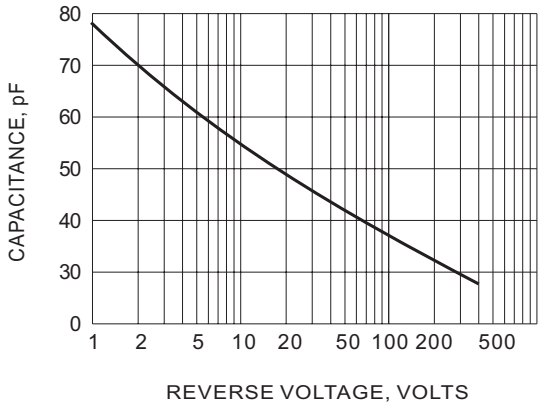


FIG.4 TYPICAL JUNCTION CAPACITANCE

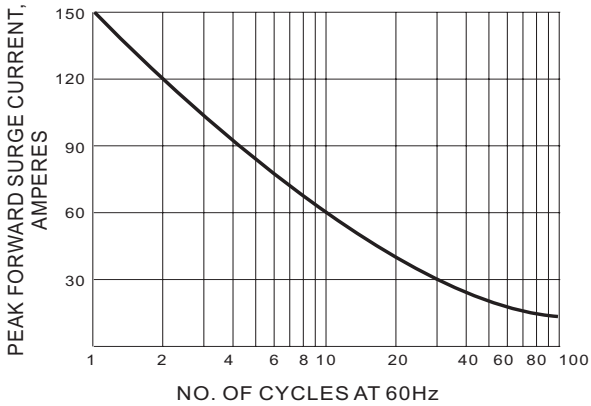


FIG.5 TYPICAL REVERSE CHARACTERISTICS