ER300 THRU ER306

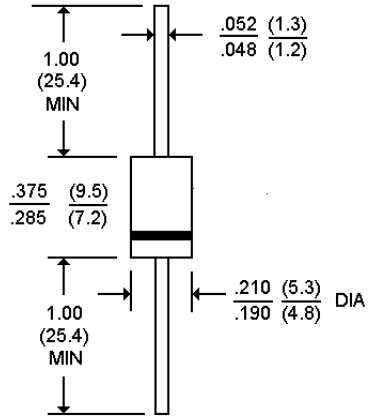
SUPERFAST RECOVERY RECTIFIERS

VOLTAGE - 50 to 600 Volts CURRENT - 3.0 Amperes

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

DO-201AD



Dimensions in inches and (millimeters)

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 ¢J ambient temperature unless otherwise specified.
Resistive or inductive load, 60Hz.

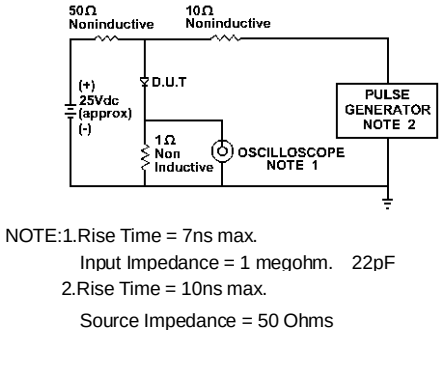
	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	320	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Current .375"(9.5mm) lead length at T_A=55 ¢J	3.0							A
Peak Forward Surge Current, I_{FM} (surge): 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	125.0							A
Maximum Forward Voltage at 3.0A DC	.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0							£g A
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=125 ¢J	300							£g A
Maximum Reverse Recovery Time(Note 1)	35.0							ns
Typical Junction capacitance (Note 2)	35							pF
Typical Junction Resistance(Note 3) R £KJA	20.0							¢J/W
Operating and Storage Temperature Range T_J	-55 to +150							¢J

NOTES:

1. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, Irr=.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

RATING AND CHARACTERISTIC CURVES

ER300 THRU ER306



NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

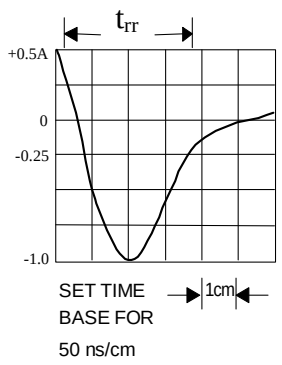


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

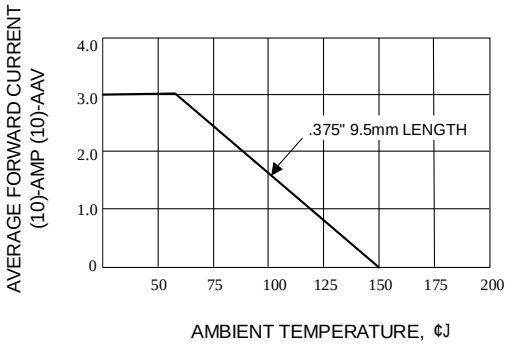


Fig. 2-MAXIMUM AVERAGE FORWARD CURRENT RATING

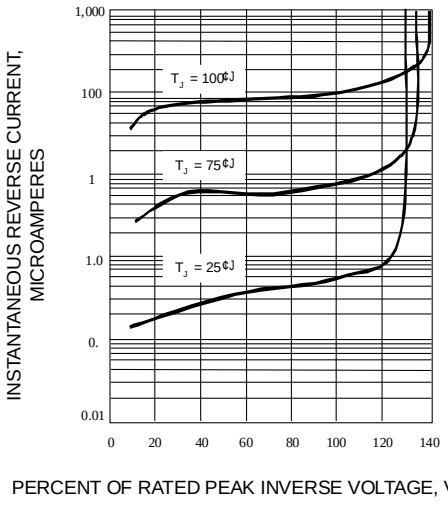


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

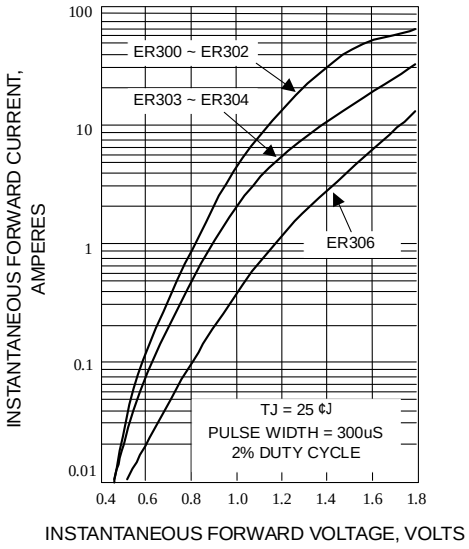


Fig. 4-FORWARD CURRENT DERATING CURVE

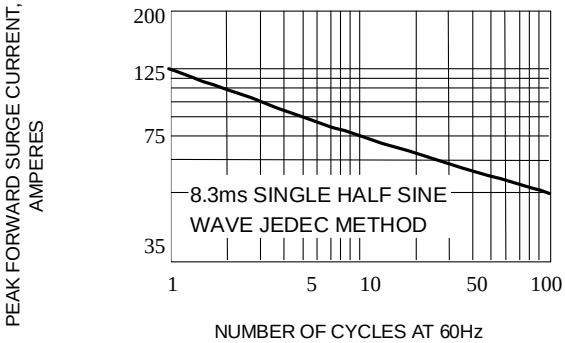


Fig. 5-MAXIMUM NON-REPETITIVE SURGE CURRENT

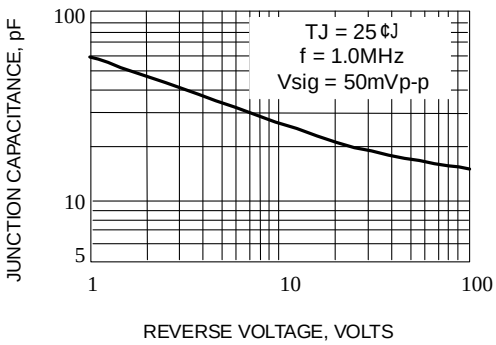


Fig. 6-TYPICAL JUNCTION CAPACITANCE