



ER300 THRU ER308

Superfast Recovery Rectifiers

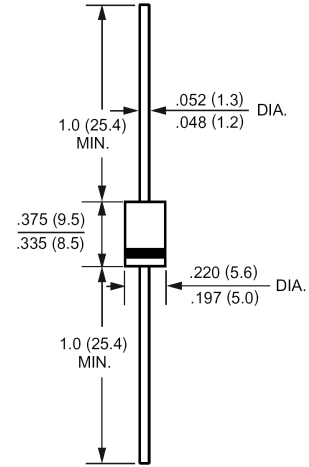
FEATURES

- 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

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	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	ER306A	ER308	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	700	800	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	490	560	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	700	800	V
Maximum Average Forward Current .375"(9.5mm) lead length at T _A =55°C	I _{F(AV)}	3.0									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I _{FSM}	125									A
Maximum Forward Voltage at 3.0A DC	V _F	0.95				1.25		1.70	2.0	2.5	V
Maximum DC Reverse Current at T _J =25°C 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					35					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: $I_F=.5A$, $I_R=1A$, $I_{rr}=.25A$
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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RATINGS AND CHARACTERISTIC CURVES

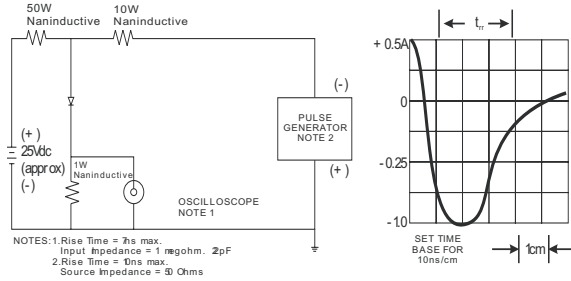


FIG.1 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

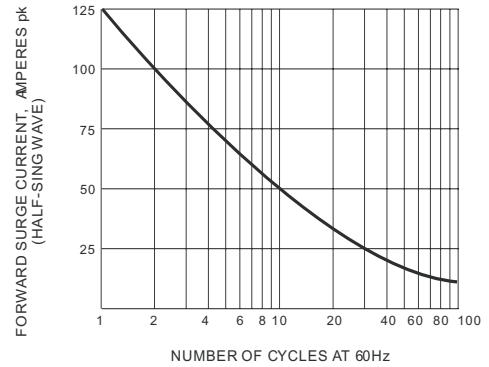


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

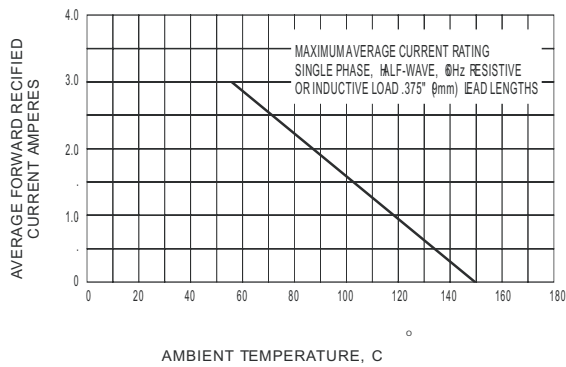


FIG.3 MAXIMUM AVERAGE FORWARD CURRENT RATING

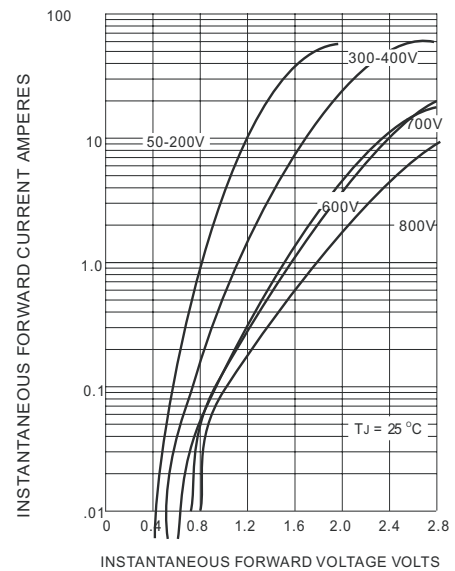


FIG.4 TYPICAL JUNCTION CAPACITANCE

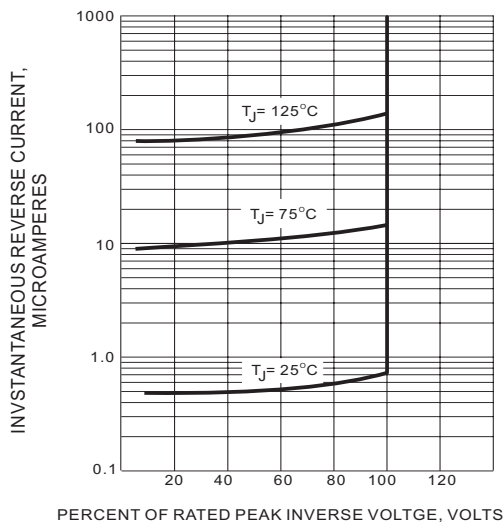


FIG.5 TYPICAL REVERSE CHARACTERISTICS

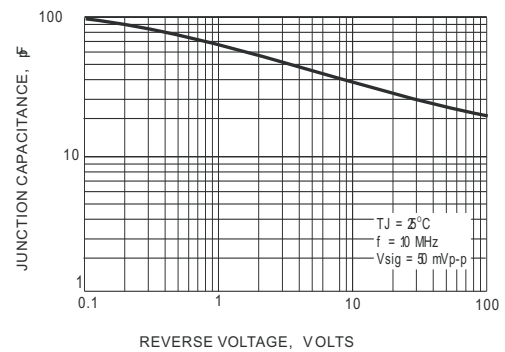


FIG.6 TYPICAL JUNCTION CAPACITANCE