

ER300~ER308

GLASS PASSIVATED SUPERFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 800 Volt **CURRENT** 3 Ampere

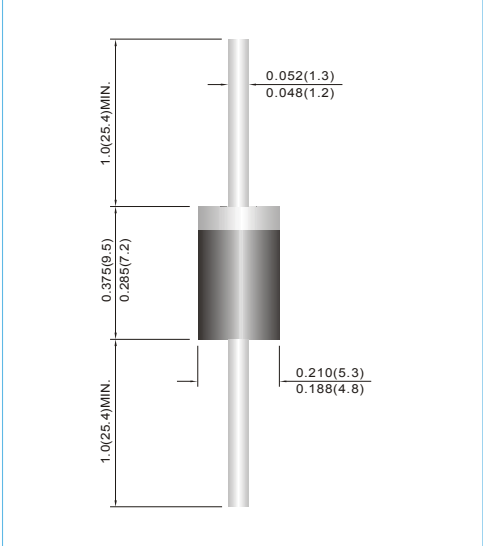
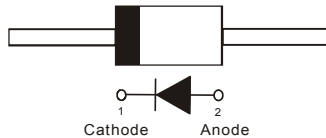
DO-201AD Unit : inch(mm)

FEATURES

- Superfast recovery times-epitaxial construction.
- Low forward voltage, high current capability.
- 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 2.0

MECHANICAL DATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.04 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	ER300	ER301	ER301A	ER302	ER303	ER304	ER306	ER306A	ER308	UNIT	
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 0.375"(9.5mm) lead length at $T_A=55^\circ C$	$I_{F(AV)}$	3									A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	125									A	
Maximum Forward Voltage at 3A DC	V_F	0.95			1.25		1.7	2	2.5		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ C$ $T_J=125^\circ C$	I_R					1 300						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)	$R_{\theta JA}$					20						$^\circ C / W$
Operating and Storage Temperature Range	T_J, T_{STG}					-55 to +150						$^\circ C$

NOTES:1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=-1A$, $I_{rr}=-0.25A$

2. Measured at 1 MHz and applied reverse voltage of 4 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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RATING AND CHARACTERISTIC CURVES

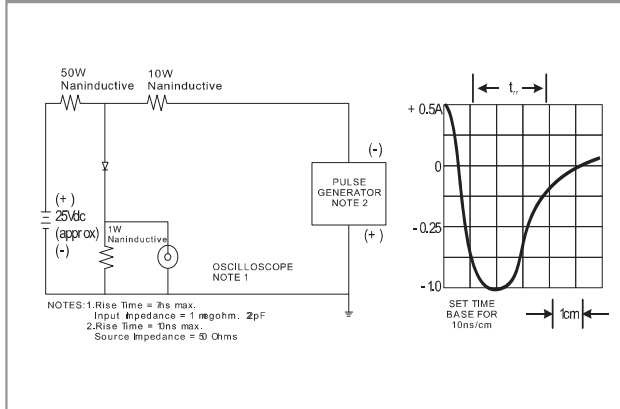


FIG.1 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

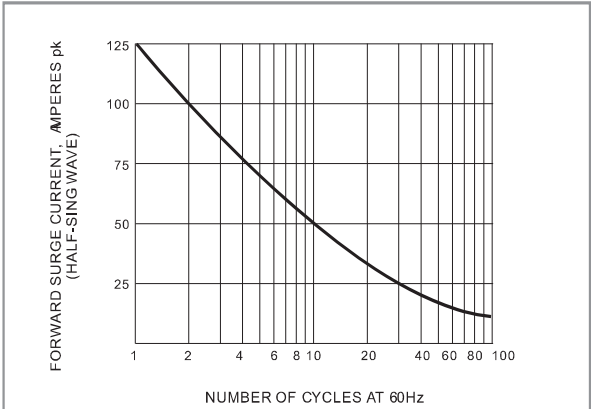


FIG.2 MAXIMUM NON-REPEITIVE SURGE CURRENT

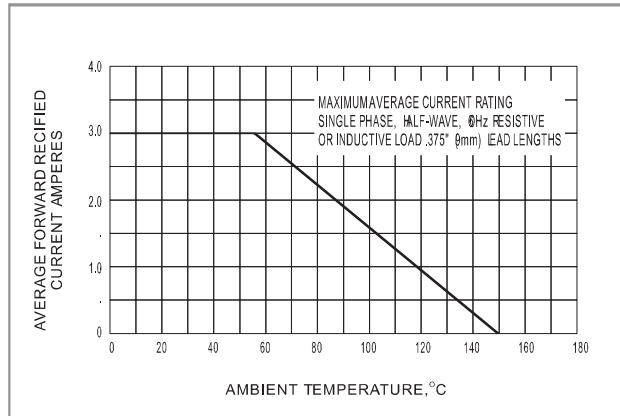


FIG.3 MAXIMUM AVERAGE FORWARD CURRENT RATING

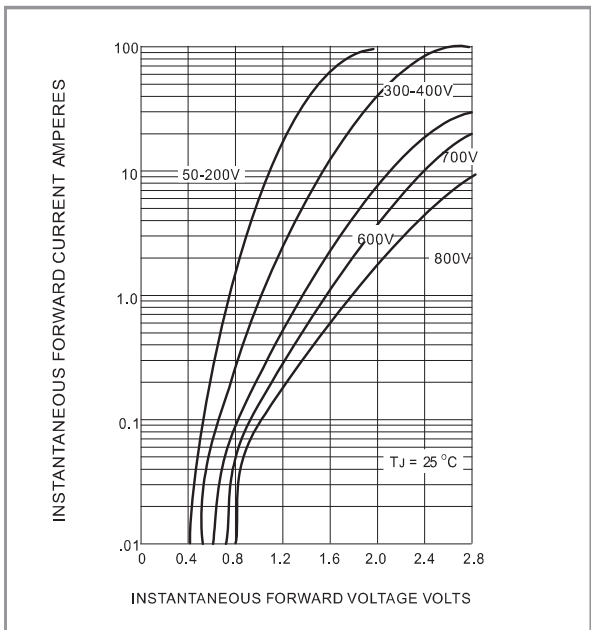


FIG.4 TYPICAL FORWARD VOLTAGE

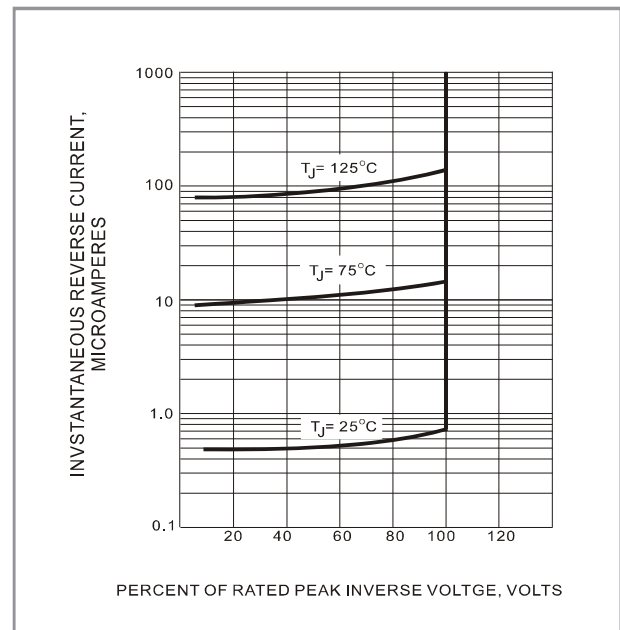


FIG.5 TYPICAL REVERSE CHARACTERISTICS

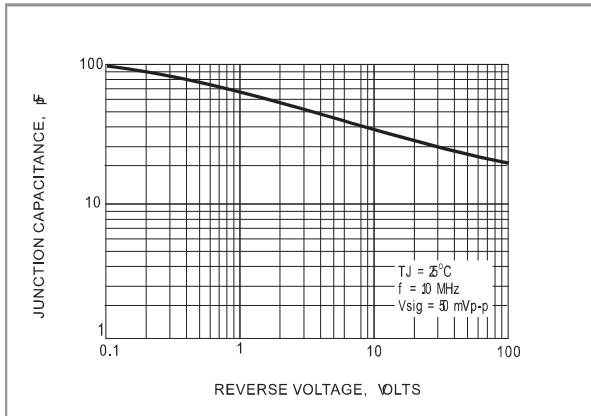


FIG.6 TYPICAL JUNCTION CAPACITANCE

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Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ER30xx	DO-201AD	1250pcs / Ammo	ER30xx
ER30xx	DO-201AD	500pcs / Box	ER30xx
ER30xx	DO-201AD	1250pcs / 13" reel	ER30xx

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