



DATA SHEET

ER300~ER306

SUPERFAST RECOVERY RECTIFIERS

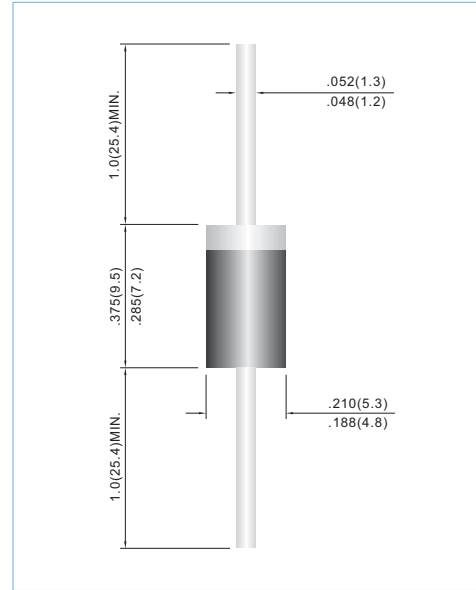
VOLTAGE 50 to 600 Volts **CURRENT** 3.0 Ampere

DO-201AD

Unit: inch(mm)

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.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request



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 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	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	600	V	
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V	
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	600	V	
Maximum Average Forward Current .375"(9.5mm) lead length at TA=55°C	I _{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	V	
Maximum DC Reverse Current at TA=25°C Rated DC Blocking Voltage TA=125°C	I _R	5.0				300				uA
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}	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



RATING AND CHARACTERISTIC CURVES

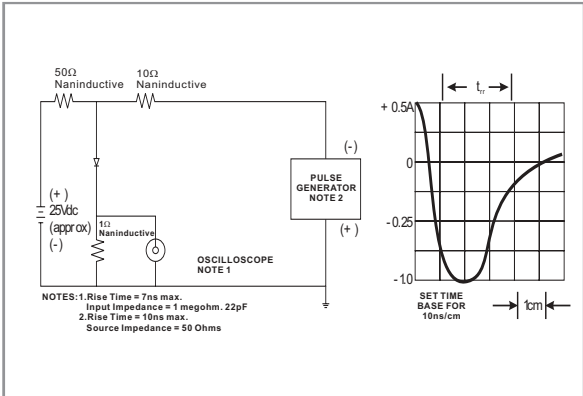


FIG. 1 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

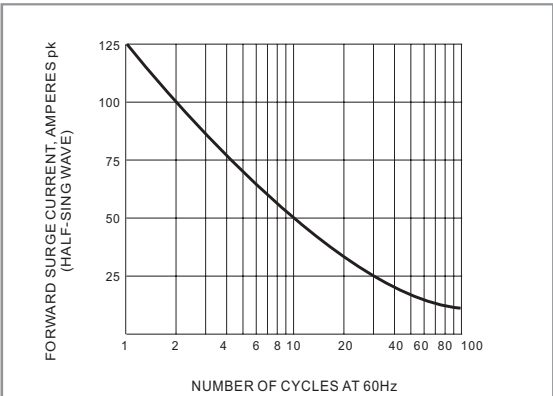


FIG. 2 MAXIMUM NON-REPEITIVE SURGE CURRENT

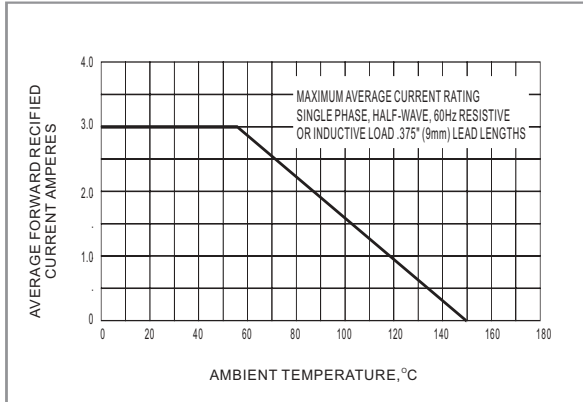


FIG. 3 MAXIMUM AVERAGE FORWARD CURRENT RATING

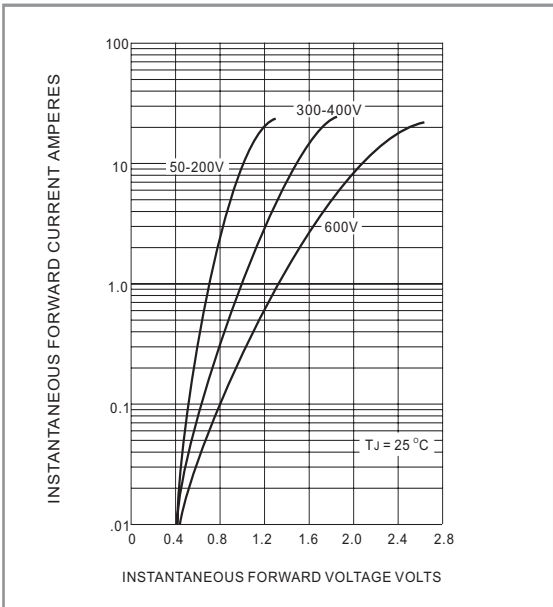


FIG. 4 TYPICAL JUNCTION CAPACITANCE

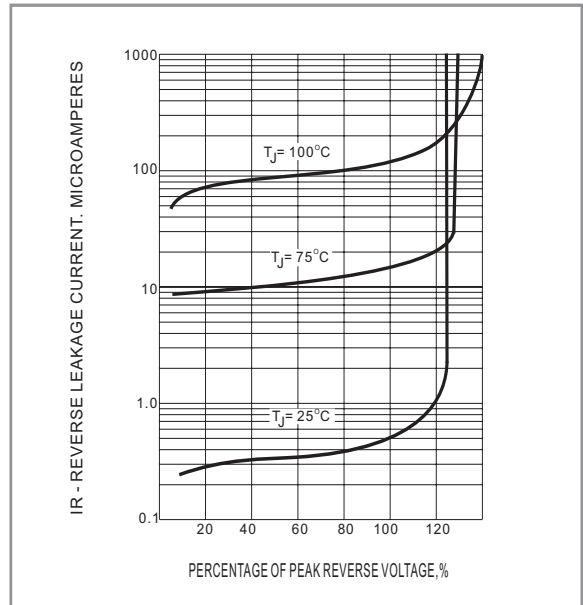


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

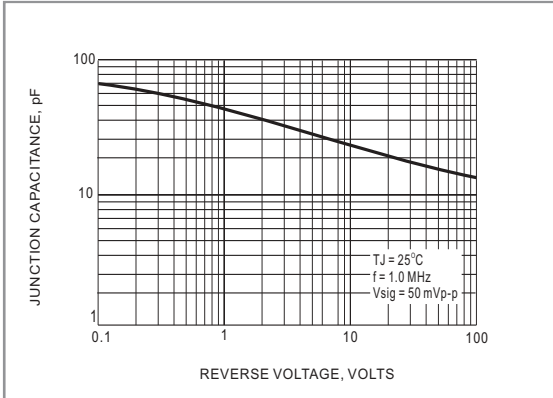


FIG. 6 TYPICAL JUNCTION CAPACITANCE