PS300R THRU PS3010R

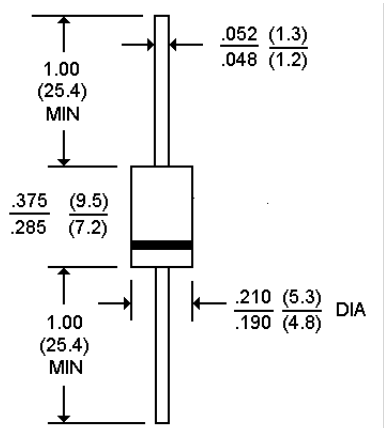
FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 3.0 Amperes

FEATURES

- High surge current capability
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Void-free Plastic in DO-201AD package
- 3 ampere operation at T_A=55 ¢J with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- Fast switching for high efficiency

DO-201AD



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic , DO-201AD

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Band denotes cathode

Mounting Position: Any

Weight: 0.04 ounce, 1.1 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ¢J ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

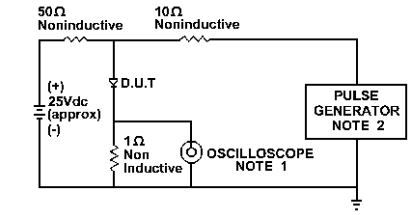
	PS300R	PS301R	PS302R	PS304R	PS306R	PS308R	PS3010R	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at T_A=55 ¢J	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	200							A
Maximum Forward Voltage at 3.0A	1.3							V
Maximum Reverse Current T_J=25 ¢J at Rated DC Blocking Voltage T_J=100 ¢J	5.0 500							£g A £g A
Maximum Reverse Recovery Time(Note 1)	150	150	150	150	250	500	500	ns
Typical Junction capacitance (Note 2) CJ	60							pF
Typical Thermal Resistance (Note 3) R £KJA	22							¢J/W
Operating and Storage Temperature Range	-55 TO +150							¢J

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 at 0.375"(9.5mm) lead length with both leads equally heatsink.

RATING AND CHARACTERISTIC CURVES

PS300R THRU PS3010R



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

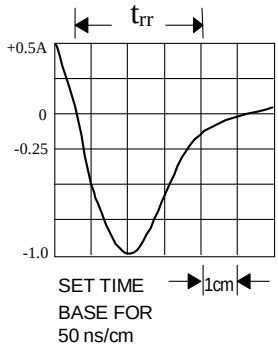


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

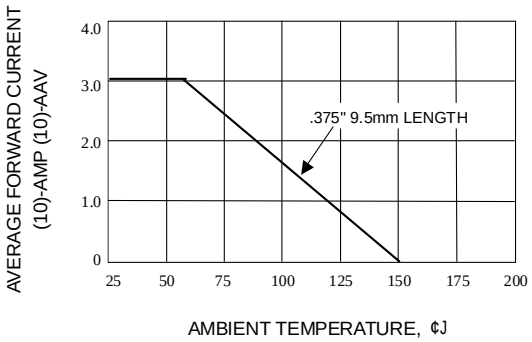


Fig. 2-FORWARD CURRENT DERATING CURVE

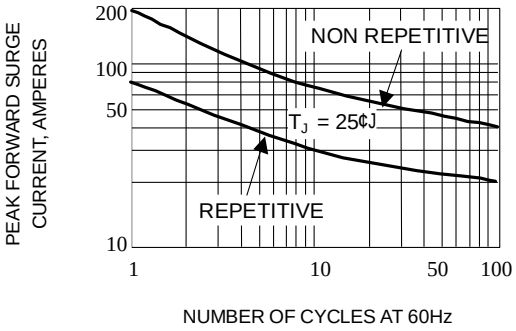


Fig. 3-PEAK FORWARD SURGE CURRENT

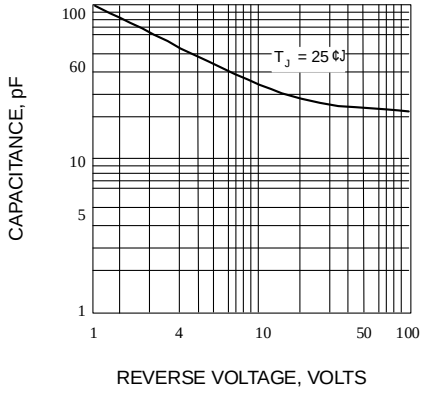


Fig. 4-TYPICAL JUNCTION CAPACITANCE

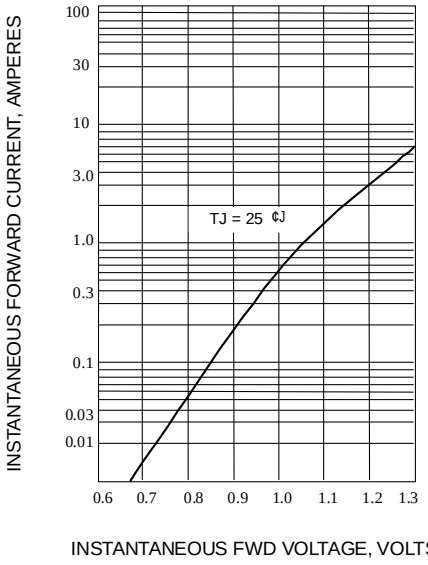


Fig. 5-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS