PS200R THRU PS2010R

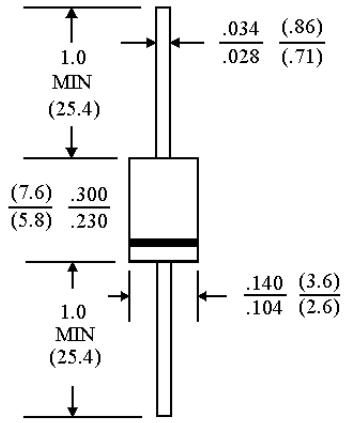
FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE - 50 to 1000 Volts CURRENT - 2.0 Amperes

FEATURES

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

DO-15



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case: Molded plastic , DO-15

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

Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 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%.

	PS200R	PS201R	PS202R	PS204R	PS206R	PS208R	PS2010R	UNITS
Peak Reverse Voltage, Repetitive; V_{RM}:	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	2.0							A
Peak Forward Surge Current, I_{FM}(surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	70.0							A
Maximum Forward Voltage at 2.0A DC	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
Typical Junction capacitance (Note 1) CJ	35							pF
Typical Thermal Resistance (Note 3) R £KJA	22							¢J/W
Maximum Reverse Recovery Time(Note 2)	150	150	150	150	250	500	500	ns
Operating and Storage Temperature Range T_J,T_{STG}	-55 TO +150							¢J

NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Reverse Recovery Test Conditions: I_F=.5A, I_R=1A, I_{rr}=.25A
3. Thermal Resistance from Junction to Ambient and from junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted.

RATING AND CHARACTERISTIC CURVES

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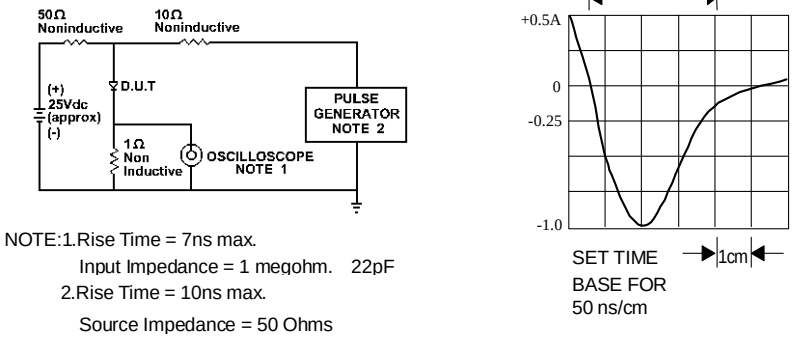

NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

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

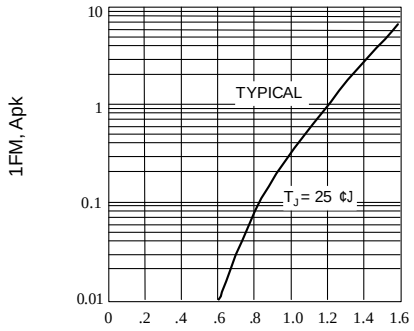

Fig. 2-FORWARD CHARACTERISTICS

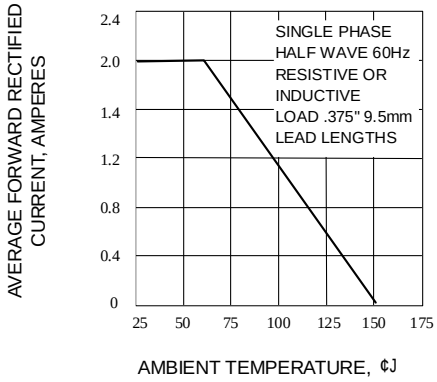

Fig. 3-FORWARD CURRENT DERATING CURVE

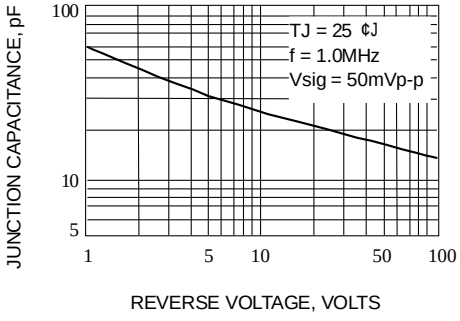

Fig. 4-TYPICAL JUNCTION CAPACITANCE

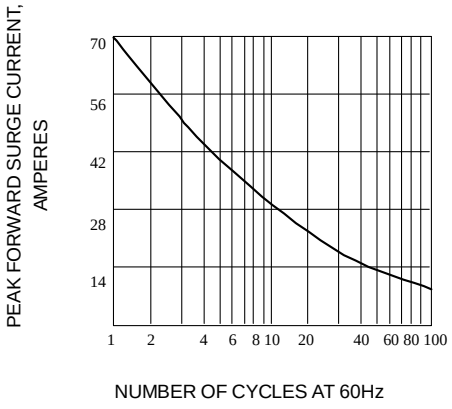

Fig. 5-PEAK FORWARD SURGE CURRENT