1. DATA SHEET

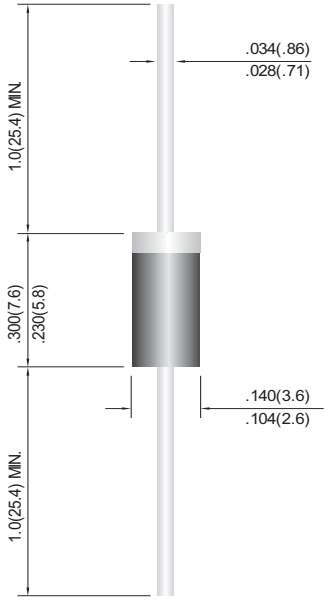
PS150R~PS1510R

FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE 50 to 1000 Volts CURRENT - 1.5 Amperes

DO-15

Unit: inch (mm)



FEATURES

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

MECHANICAL DATA

Case: Molded plastic, DO-15

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

Polarity: Color Band denotes cathode end

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load, 60Hz.

	PS150R	PS151R	PS152R	PS154R	PS156R	PS158R	PS1510R	UNIT
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 Current .375"(9.5mm) lead length at T_A=55°C	1.5							A
Peak Forward Surge Current, IFM (surge):8.3ms single half sine-wave superimposed on rated load(JEDEC method)	50.0							A
Maximum Forward Voltage at 1.5A	1.30							V
Maximum Full Load Reverse Current Full Cycle Average ,.375",9.5mm Lead Length at T_A=25°C	5.0							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=100°C	500							μA
Maximum Reverse Recovery Time(Note 1)	150				250	500		ns
Typical Junction capacitance (Note 2)	25							pF
Typical Junction Resistance(Note 3) RθJA	45							°C/ W
Operating and Storage Temperature Range T_J	-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

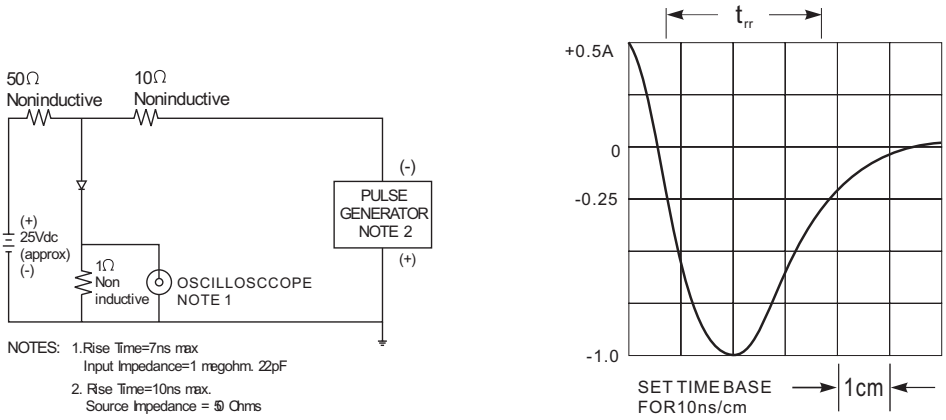


Fig.1 -REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

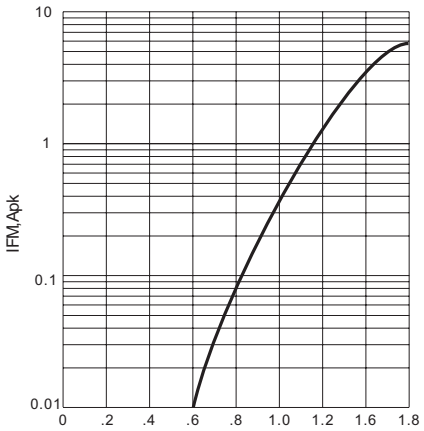


Fig.2 -FORWARD CHARACTERISTICS

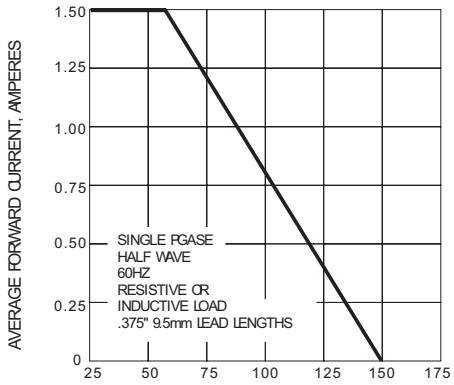


Fig.3 -FORWARD CURRENT DERATING CURVE

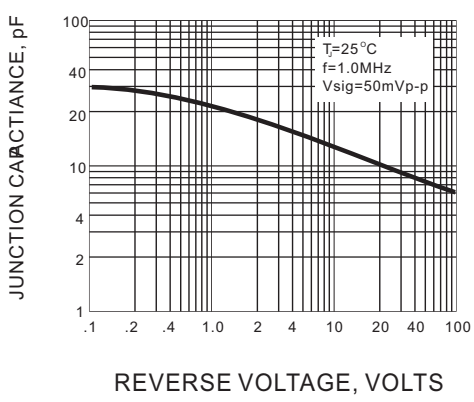


Fig.4 -TYPICAL JUNCTION CAPACITANCE vs. REVERSE VOLTAGE

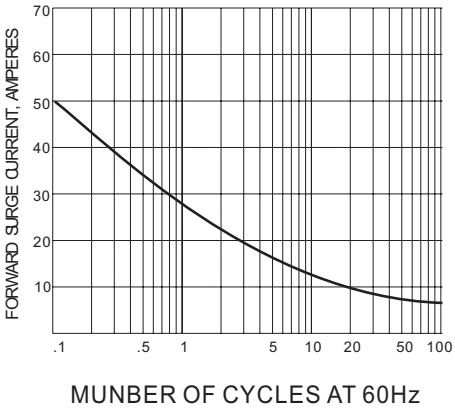


Fig.5 -PEAK FORWARD SURGE CURRENT