



# DATA SHEET

## PS150~PS1510

### PLASTIC SILICON RECTIFIER

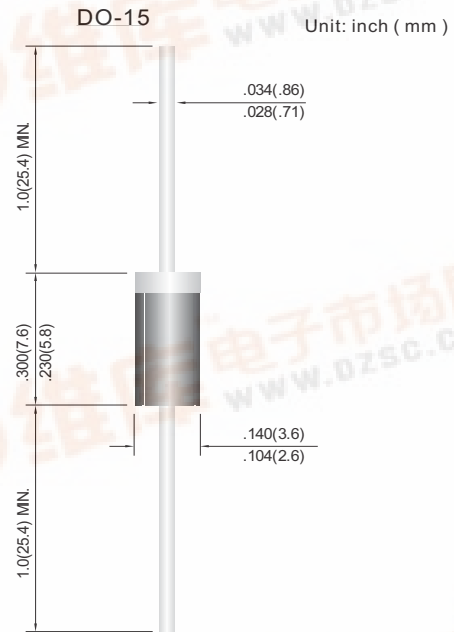
VOLTAGE 50 to 1000 Volts CURRENT - 1.5 Amperes

#### FEATURES

- Low cost
- High current capability
- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- 1.5 Ampere operation at  $T_A=50^{\circ}\text{C}$  with no thermal runaway.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage

#### 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.

	PS150	PS151	PS152	PS154	PS156	PS158	PS1510	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 $T_A=60^{\circ}\text{C}$	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 DC	1.10							V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=25^{\circ}\text{C}$	5.0							$\mu\text{A}$
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A=100^{\circ}\text{C}$	500							$\mu\text{A}$
Typical Junction capacitance (Note 1)	25.0							pF
Typical Junction Resistance(Note 2) $R_{\theta JA}$	45.0							$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range $T_J, T_{STG}$	-55 to +150							$^{\circ}\text{C}$

NOTES: 1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC

2. Thermal resistance from junction to ambient and from junction to lead length 0.375"(9.5mm) P.C.B. mounted





**RATING AND CHARACTERISTIC CURVES**

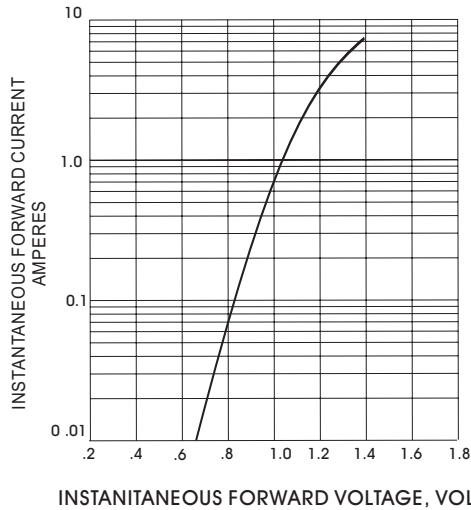


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

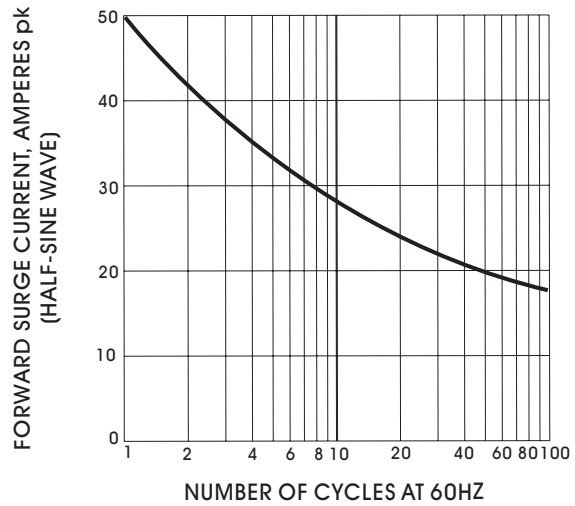


Fig.2-MAXIMUM OVERLOAD SURGE-CURRENT

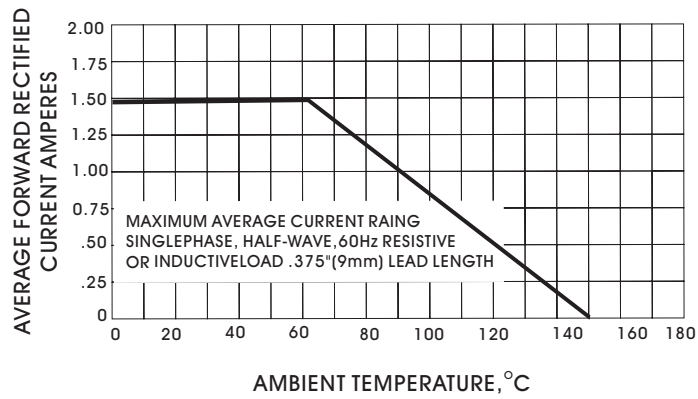


Fig.3-FORWARD DERATING CURVE

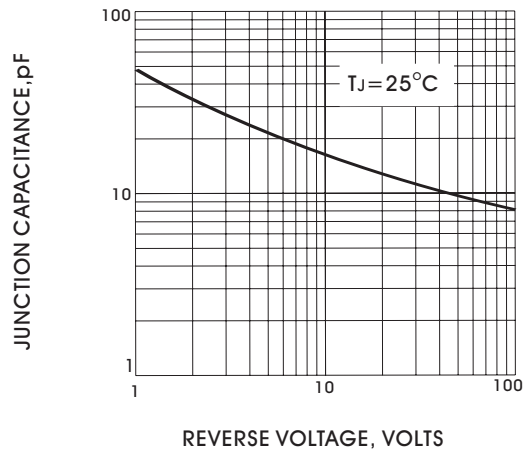


Fig.4- TYPICAL JUNCTION CAPACITANCE