



# PS150~PS1510

## PLASTIC SILICON RECTIFIER

**VOLTAGE** 50 to 1000 Volts **CURRENT** 1.5 Amperes

**DO-15**

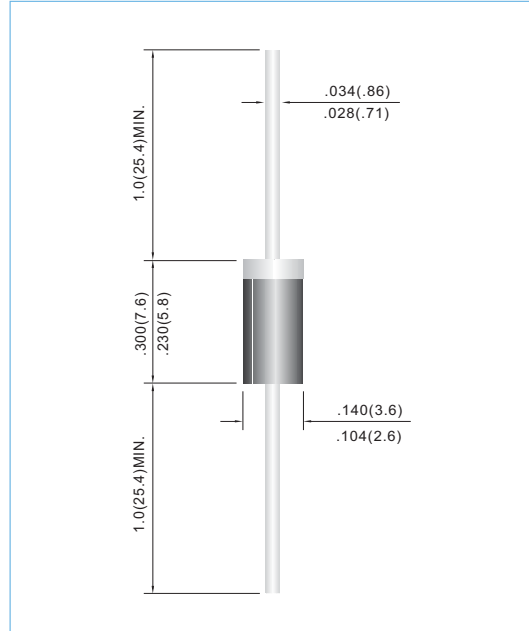
Unit: inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratories Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, DO-15
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- 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, Single phase, half wave, For capacitive load, derate current by 20%

| PARAMETER  | SYMBOL                             | PS150       | PS151 | PS152 | PS154 | PS156 | PS158 | PS1510 | UNITS                       |
|--|------------------------------------|-------------|-------|-------|-------|-------|-------|--------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$                          | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                           |
| Maximum RMS Voltage  | $V_{RMS}$                          | 35          | 70    | 140   | 280   | 420   | 560   | 700    | V                           |
| Maximum DC Blocking Voltage  | $V_{DC}$                           | 50          | 100   | 200   | 400   | 600   | 800   | 1000   | V                           |
| Maximum Average Forward Current .375" (9.5mm) lead length at $T_A=60^\circ\text{C}$                    | $I_{F(AV)}$                        | 1.5         |       |       |       |       |       |        | A                           |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)       | $I_{FSM}$                          | 50          |       |       |       |       |       |        | A                           |
| Maximum Forward Voltage at 1.5A  | $V_F$                              | 1.1         |       |       |       |       |       |        | V                           |
| Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$ | $I_R$                              | 5.0<br>500  |       |       |       |       |       |        | $\mu\text{A}$               |
| Typical Junction capacitance (Note 1)  | $C_J$                              | 25          |       |       |       |       |       |        | pF                          |
| Typical Thermal Resistance(Note 2)   | $R_{\theta JA}$<br>$R_{\theta JL}$ | 45<br>28    |       |       |       |       |       |        | $^\circ\text{C} / \text{W}$ |
| Operating Junction 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



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## RATING AND CHARACTERISTIC CURVES

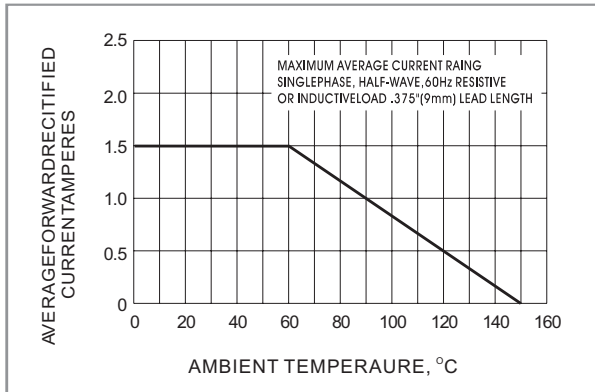


Fig.1- FORWARD CURRENT DERATING CURVE

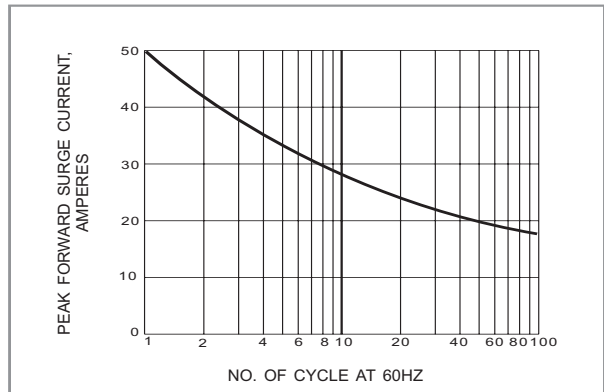


Fig.2- MAXIMUM OVERLOAD SURGE CURRENT

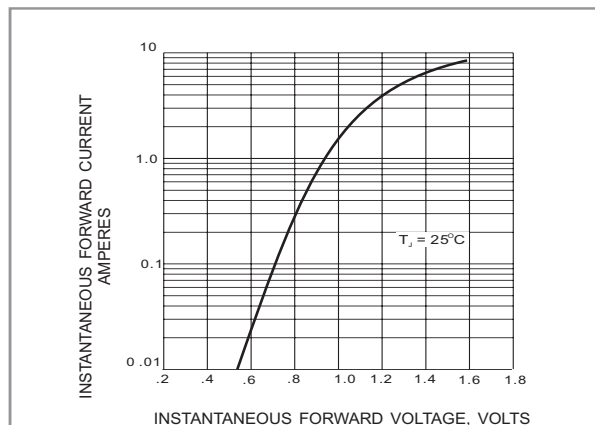


Fig.3- TYPICAL FORWARD CHARACTERISTIC

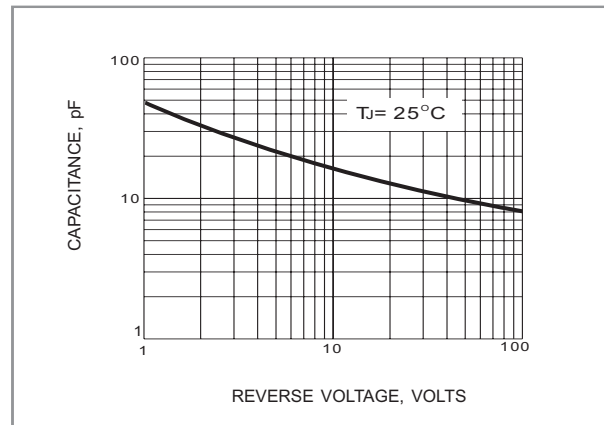


Fig.4- TYPICAL JUNCTION CAPACITANCE

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