



DATA SHEET

PS300R~PS3010R

FAST SWITCHING PLASTIC RECTIFIER

VOLTAGE 50 to 1000 Volts **CURRENT** 3.0 Amperes

DO-201AD

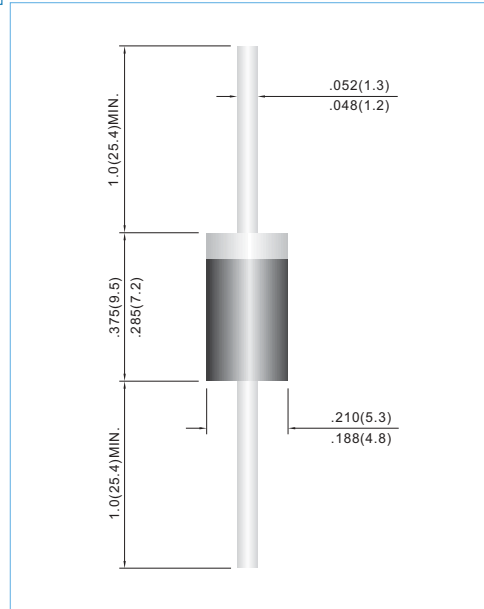
Unit: inch(mm)

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
- Fast switching for high efficiency.
- Both normal and Pb free product are available :
Normal : 80~95% Sn, 5~20% Pb
Pb free: 98.5% Sn above

MECHANICAL DATA

Case: Molded plastic, DO-201AD
Terminals: Axial leads, solderable to MIL-STD-202, Method 208
Polarity: Color Band denotes cathode end
Mounting Position: Any
Weight: 0.04 ounce, 1.1 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	PS 300R	PS 301R	PS 302R	PS 304R	PS 306R	PS 308R	PS 3010R	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 $T_A=55^\circ C$	I_{AV}	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	200							A
Maximum Forward Voltage at 3.0A	V_F	1.3							V
Maximum DC Reverse Current at $T_A=25^\circ C$ Rated DC Blocking Voltage $T_A=100^\circ C$	I_R	5.0 500							μA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	150				250	500		ns
Typical Junction capacitance (Note 2)	C_J	60							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	22							$^\circ C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 TO +150							$^\circ C$

- 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

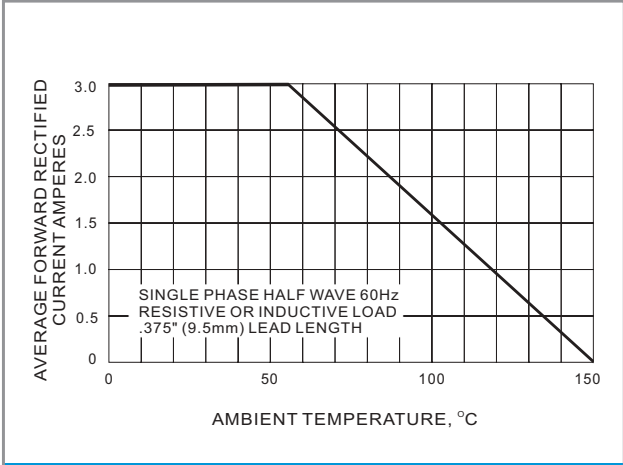


FIG.1 FORWARD CURRENT DERATING CURVE

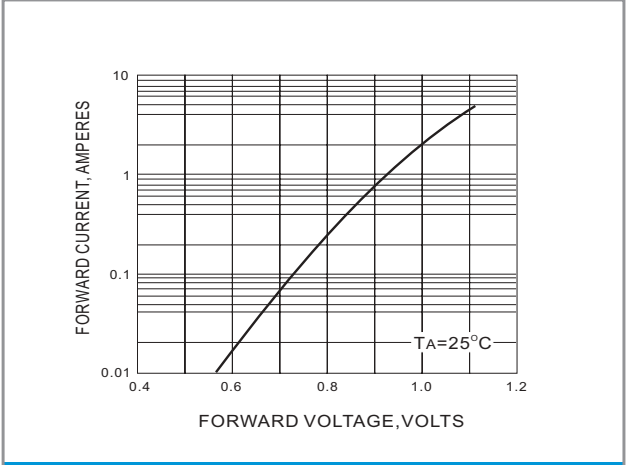


FIG.2 TYPICAL FORWARD CHARACTERISTIC

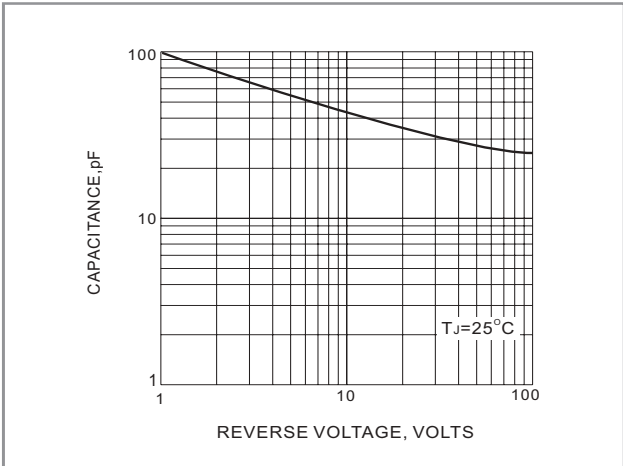


FIG.3 TYPICAL JUNCTION CAPACITANCE

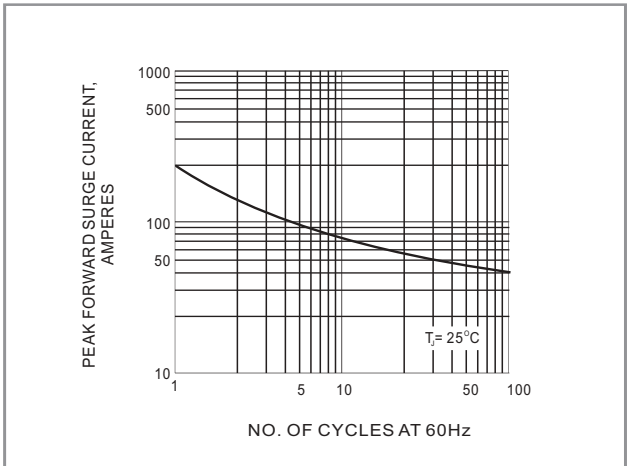


FIG.4 PEAK FORWARD SURGE CURRENT