

# PR101~PR107

## FAST RECOVERY PLASTIC RECTIFIER

**VOLTAGE** 50 to 1000 Volt **CURRENT** 1.0 Ampere

DO-41

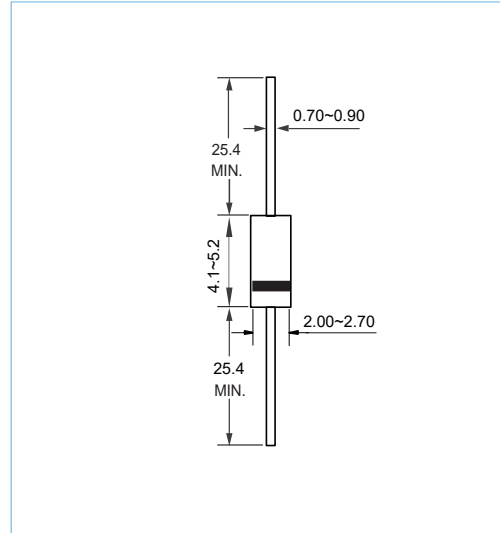
Unit:mm

### FEATURES

- Low Leakage Current
- High current capability
- High reliability
- Lead free in compliance with EU RoHS

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	PR101	PR102	PR103	PR104	PR105	PR106	PR107	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	7000	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Current (see FIG.1)	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum Forward Voltage at 1.0 A	$V_F$	1.30							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	5.0 100							$\mu A$
Maximum Reverse Recovery Time(Note 1)	$t_{rr}$	150				250	500		ns
Thermal Resistance	$R_{\theta JA}$	50							$^{\circ}C / W$
Typical Junction Capacitance (Note2)	$C_J$	15							pF
Operating Junction Temperature Range	$T_J$	-55 to +150							$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150							$^{\circ}C$

### NOTES:

1. Reverse Recovery Test Conditions:  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volt

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## RATING AND CHARACTERISTIC CURVES

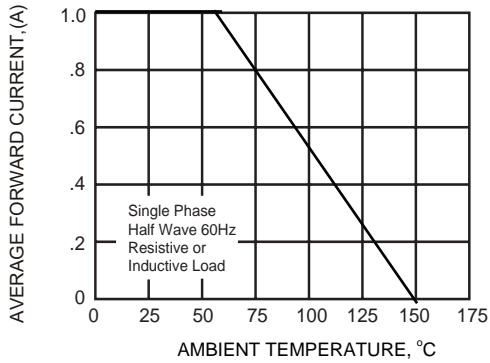


Fig. 1 Forward Current Derating Curve

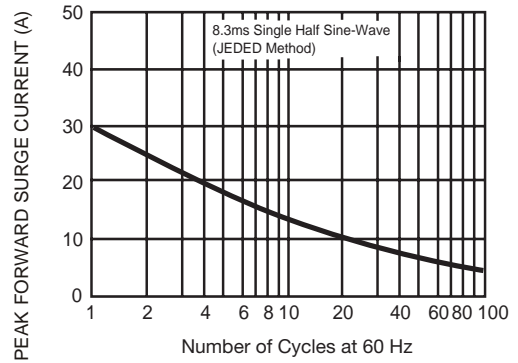


Fig. 2 Surge Current Derating Curve

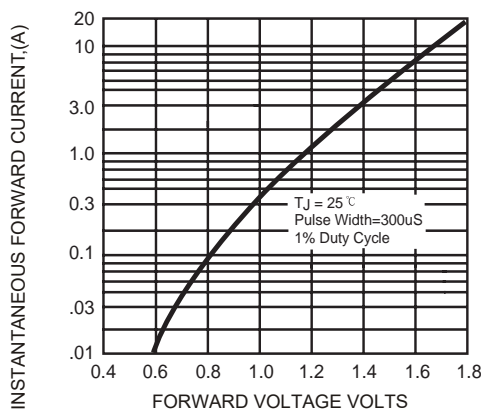


Fig. 3 Typical Forward Characteristics

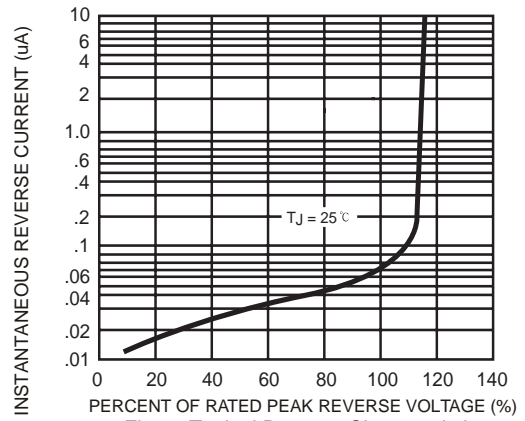


Fig. 4 Typical Reverse Characteristics

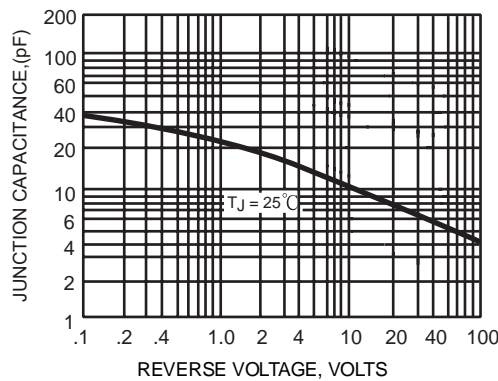
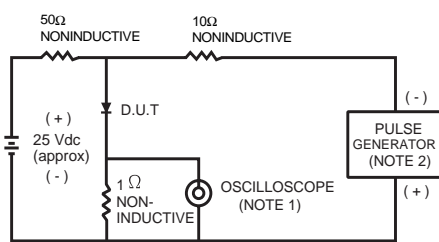


Fig. 5 Typical Junction Capacitance



NOTES:  
 3. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.  
 4. Rise time = 10 ns max; Source impedance = 50 ohms.

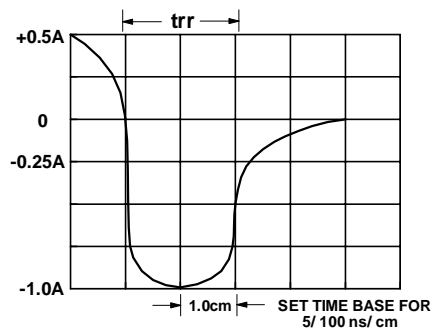


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit

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### ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
PR101~PR107	DO-41	13 Inch	5000