

# PR1001/L - PR1005/L

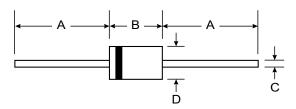
## **1.0A FAST RECOVERY RECTIFIER**

### Features

- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

### **Mechanical Data**

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- DO-41 Weight: 0.35 grams (approx.)
- A-405 Weight: 0.2 grams (approx.)



	DO-41	Plastic	A-405				
Dim	Min	Max	Min	Max			
Α	25.40	_	25.40	_			
В	4.06	5.21	4.10	5.20			
С	0.71	0.864	0.53	0.64			
D	2.00	2.72	2.00	2.70			
All Dimensions in mm							

"L" Suffix Designates A-405 Package No Suffix Designates DO-41 Package

### Maximum Ratings and Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Characteristic	Symbol	PR 1001/L	PR 1002/L	PR 1003/L	PR 1004/L	PR 1005/L	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	v
RMS Reverse Voltage		35	70	140	280	420	V
Average Rectified Output Current (Note 1) $@ T_A = 75^{\circ}C$		1.0					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)		30					A
Forward Voltage Drop @ $I_F = 1.0$	A V <sub>FM</sub>	1.2					V
Peak Reverse Current@ $T_A = 25^{\circ}C$ at Rated DC Blocking Voltage@ $T_A = 100^{\circ}C$		5.0 100					μA
Reverse Recovery Time (Note 3)		150 250				250	ns
Typical Junction Capacitance (Note 2)		15 8.0				8.0	pF
Typical Thermal Resistance Junction to Ambient		75					K/W
Operating and Storage Temperature Range		-65 to +150					°C

Notes: 1. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.

- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. Measured with  $I_F$  = 0.5A,  $I_R$  = 1A,  $I_{rr}$  = 0.25A. See figure 5.

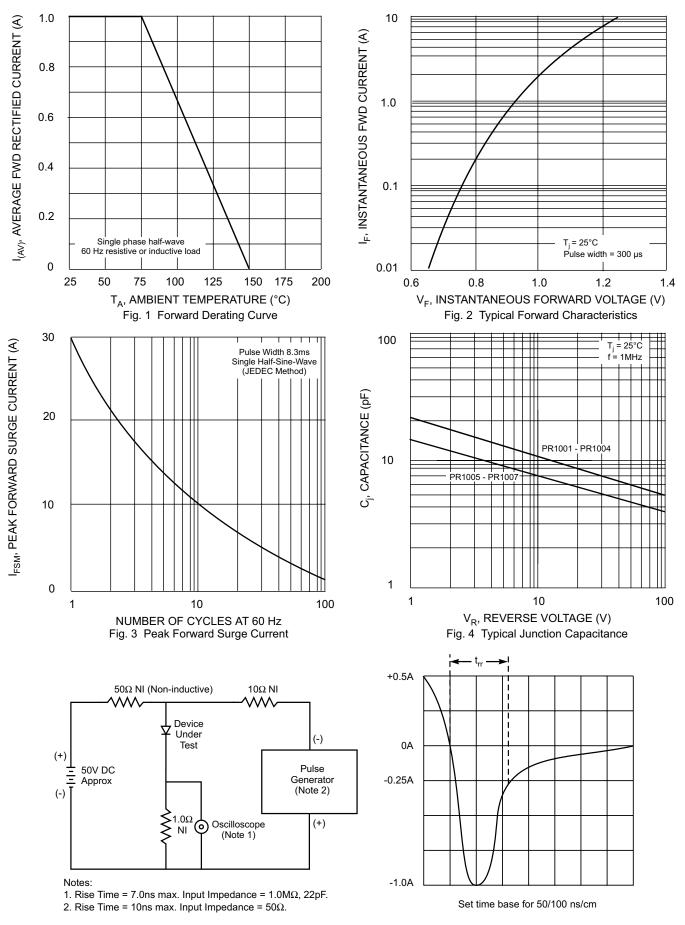


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit