

## PR2001 - PR2007 FAST RECOVERY RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V CURRENT: 2.0 A

## **Features**

- Glass Passivated Die Construction
- Diffused Junction
- Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0

## **Mechanical Data**

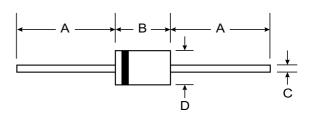
Case: DO-15Molded Plastic

 Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band
Marking: Type Number
Weight: 0.4 grams (approx.)







DO-15							
Dim	Min	Max					
Α	25.40	_					
В	5.50	7.62					
C	0.686	0.889					
D	2.60	3.60					
All Dimensions in mm							

## Maximum Ratings and Electrical Characteristics @ TA = 25°C unless otherwise specified

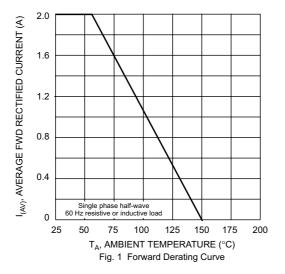
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

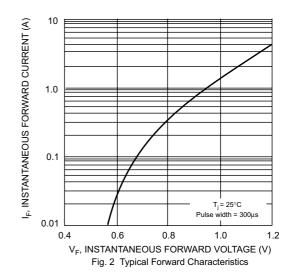
Characteristic		Symbol	PR 2001	PR 2002	PR 2003	PR 2004	PR 2005	PR 2006	PR 2007	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	100	200	400	600	800	1000	٧
RMS Reverse Voltage		V <sub>R(RMS)</sub>	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1) @ T <sub>A</sub> = 55°C		I <sub>O</sub>	2.0							Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed on Rated Load (JEDEC Method)		I <sub>FSM</sub>	80						А	
Forward Voltage Drop	@ I <sub>F</sub> = 2.0A	V <sub>FM</sub>	1.3					V		
Peak Reverse Current at Rated DC Blocking Voltage	@ T <sub>A</sub> = 25°C @ T <sub>A</sub> = 100°C	I <sub>RM</sub>	5.0 100					μА		
Reverse Recovery Time (Note 3)		t <sub>rr</sub>	150 250				50	00	ns	
Typical Junction Capacitance (Note 2)		Cj	35						pF	
Typical Thermal Resistance Junction to Ambient		$R_{\theta JA}$	50						K/W	
Operating and Storage Temperature Range		T <sub>j</sub> , T <sub>STG</sub>	-65 to +150						°C	

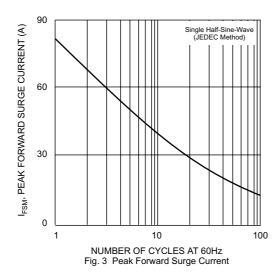
Notes:

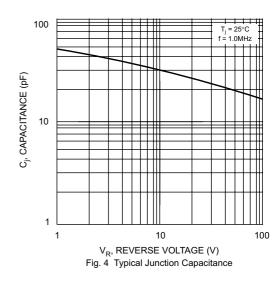
- 1. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
- 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
- 3. Measured with  $I_F$  = 0.5A,  $I_R$  = 1.0A,  $I_{rr}$  = 0.25A. See figure 5.

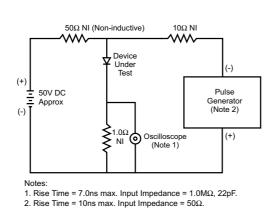












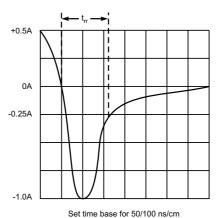


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit