

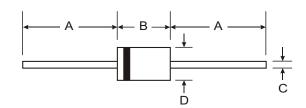
# PR2001G - PR2007G

# 2.0A FAST RECOVERY GLASS PASSIVATED RECTIFIER

### **Features**

Glass Passivated Die Construction Fast Switching for High Efficiency Surge Overload Rating to 80A Peak Low Reverse Leakage Current

Lead Free Finish, RoHS Compliant (Note 4)



## **Mechanical Data**

Case: DO-15

Case Material: Molded Plastic. UL Flammability Classification

Rating 94V-0

Moisture Sensitivity: Level 1 per J-STD-020C

Terminals: Finish - Tin. Solderable per MIL-STD-202,

Method 208 (e3) Polarity: Cathode Band Marking: Type Number

Ordering Information: See Page 3 Weight: 0.4 grams (approximate)

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

#### **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 2001G	PR 2002G	PR 2003G	PR 2004G	PR 2005G	PR 2006G	PR 2007G	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage (Note 5)		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	Io				2.0				Α
Non-Repetitive Peak Forward Surge Currer 8.3ms Single half sine-wave Superimposed	nt on Rated Load	I <sub>FSM</sub>				80				Α
Forward Voltage Drop	$@ I_F = 2.0A$	A V <sub>FM</sub>		1.3						V
Peak Reverse Current at Rated DC Blocking Voltage (Note 5)	@ T <sub>A</sub> = 25 C @ T <sub>A</sub> = 100 C	I <sub>RM</sub>	5.0 100			Α				
Reverse Recovery Time (Note 3)		t <sub>rr</sub>		15	50		250	50	00	ns
Typical Total Capacitance (Note 2)		Ст	35					pF		
Typical Thermal Resistance Junction to Ambient		R <sub>JA</sub>	50						°C/W	
Operating and Storage Temperature Range		T <sub>j</sub> , T <sub>STG</sub>	-65 to +150						С	

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.
- 4. RoHS revision 13.2.2003. Glass and high temperature solder exemptions applied, see EU Directive Annex Notes 5 and 7.
- 5. Short duration pulse test used to minimize self-heating effect.

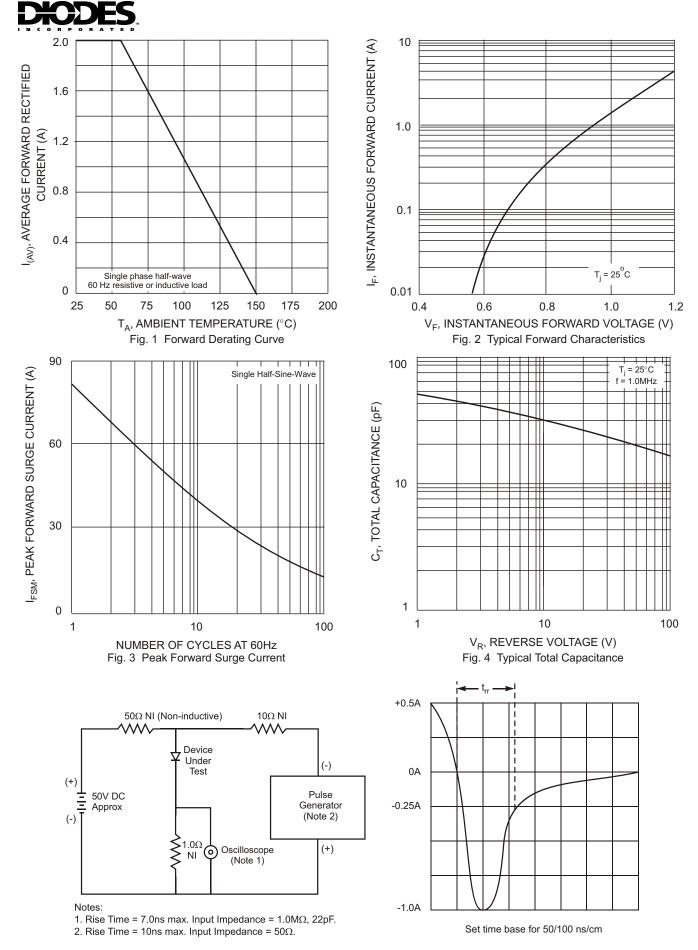


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit



# Ordering Information (Note 6)

Device	Packaging	Shipping
PR2001G-T	DO-15	4K/Tape & Reel, 13-inch
PR2002G-T	DO-15	4K/Tape & Reel, 13-inch
PR2003G-T	DO-15	4K/Tape & Reel, 13-inch
PR2004G-T	DO-15	4K/Tape & Reel, 13-inch
PR2005G-T	DO-15	4K/Tape & Reel, 13-inch
PR2006G-T	DO-15	4K/Tape & Reel, 13-inch
PR2007G-T	DO-15	4K/Tape & Reel, 13-inch

Notes:

6. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.

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