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With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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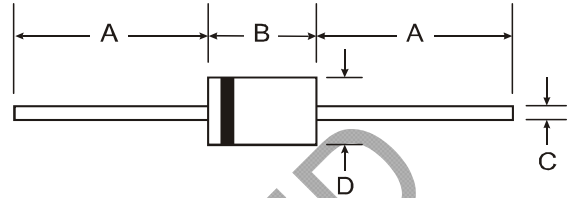
Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Features

- Diffused Junction
- Fast Switching for High Efficiency
- Surge Overload Rating to 50A 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
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.6
All Dimensions in mm		

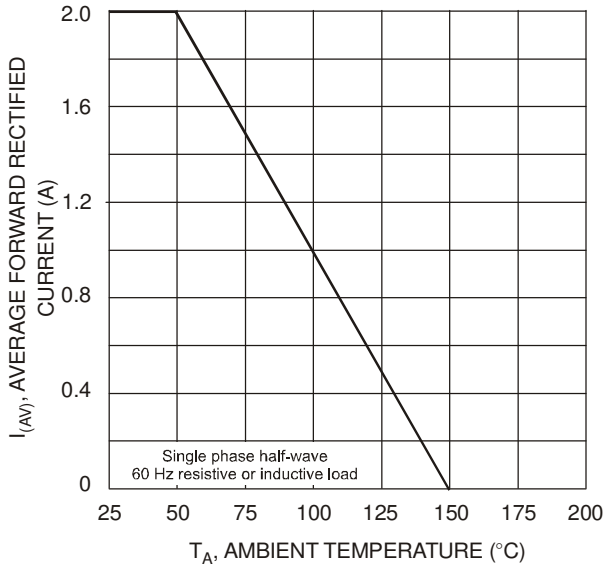
Maximum Ratings and Electrical Characteristics

@T_A = 25°C unless otherwise specified

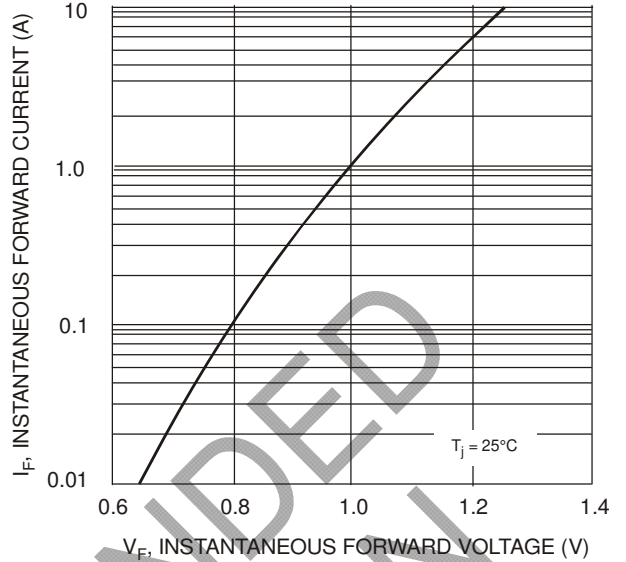
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	PR 2001	PR 2002	PR 2003	PR 2004	PR 2005	Unit	
Peak Repetitive Reverse Voltage	V _{RRM}							
Working Peak Reverse Voltage	V _{RWM}	50	100	200	400	600	V	
DC Blocking Voltage (Note 5)	V _R							
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	V	
Average Rectified Output Current (Note 1)	I _O	2.0						A
		@ T _A = 50°C						
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	50						A
Forward Voltage @ I _F = 2.0A	V _{FM}	1.2						V
Peak Reverse Current @ T _A = 25°C	I _{RM}	5.0						μA
at Rated DC Blocking Voltage (Note 5) @ T _A = 100°C		100						
Reverse Recovery Time (Note 3)	t _{rr}	150				250		ns
Typical Total Capacitance (Note 2)	C _T	35				15		pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	50						°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150						°C

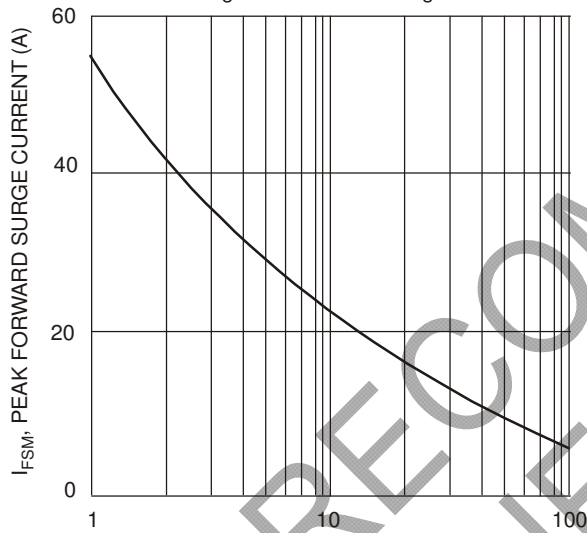
- Notes:
1. Valid provided that leads are maintained at ambient temperature at a distance of 9.5mm from the case.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0 V DC.
 3. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.
 4. RoHS revision 13.2.2003. High temperature solder exemption applied, see EU Directive Annex Note 7.
 5. Short duration pulse test used to minimize self-heating effect.



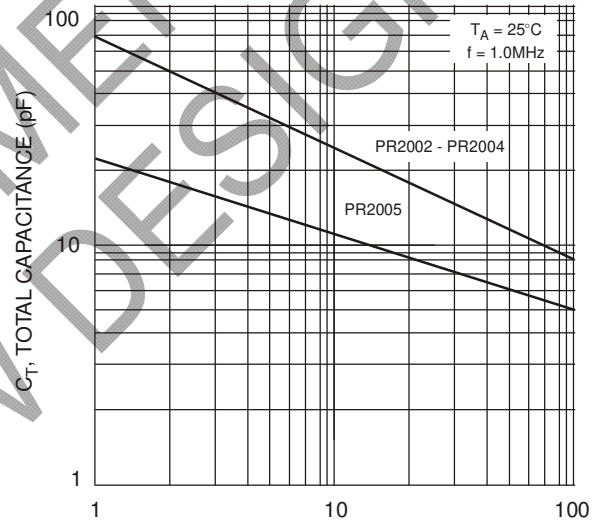
T_A , AMBIENT TEMPERATURE (°C)
Fig. 1 Forward Derating Curve



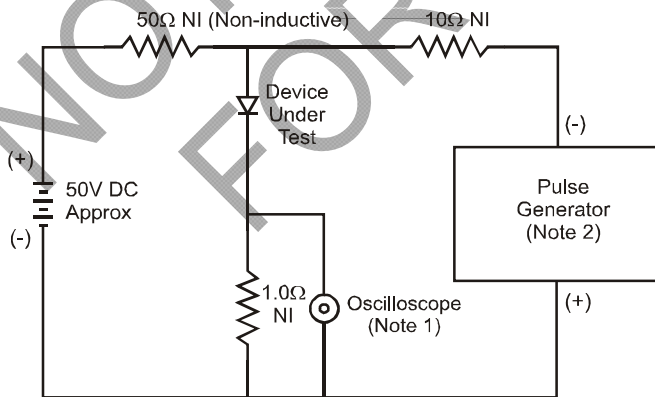
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



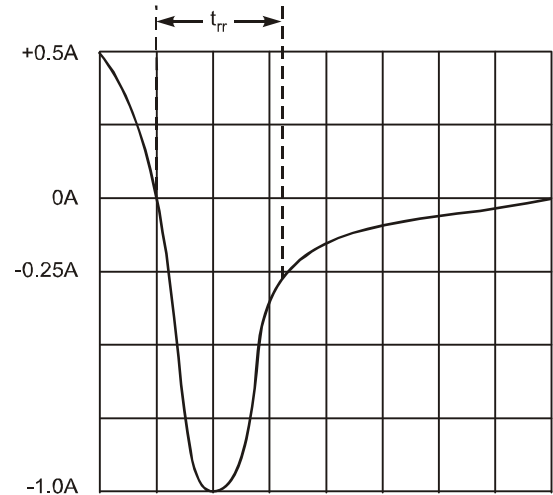
NUMBER OF CYCLES AT 60Hz
Fig. 3 Peak Forward Surge Current



V_R , REVERSE VOLTAGE (V)
Fig. 4 Typical Total Capacitance



- Notes:
1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.



Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

Ordering Information (Note 6)

Device	Packaging	Shipping
PR2001-T	DO-15	4K/Tape & Reel, 13-inch
PR2002-T	DO-15	4K/Tape & Reel, 13-inch
PR2003-T	DO-15	4K/Tape & Reel, 13-inch
PR2004-T	DO-15	4K/Tape & Reel, 13-inch
PR2005-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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