



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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!



## Contact us

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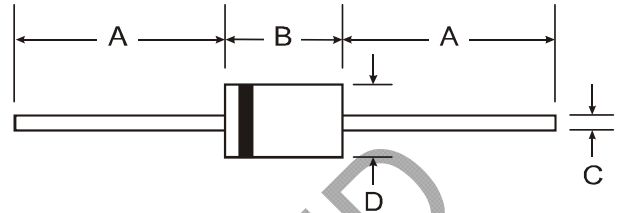
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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## Features

- Glass Passivated Die Construction
- Ultra-Fast Switching for High Efficiency
- Surge Overload Rating to 125A Peak
- Low Reverse Leakage Current
- **Lead Free Finish, RoHS Compliant (Note 4)**



## Mechanical Data

- Case: DO-201AD
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish — Tin. Plated Leads Solderable per MIL-STD-202, Method 208 **(e3)**
- Polarity: Cathode Band
- Marking: Type Number
- Ordering Information: See Page 3
- Weight: 1.1 grams (approximate)

DO-201AD		
Dim	Min	Max
A	25.40	—
B	7.20	9.50
C	1.20	1.30
D	4.80	5.30
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	UG3001	UG3002	UG3003	UG3004	UG3005	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Working Peak Reverse Voltage	V <sub>RWM</sub>						
DC Blocking Voltage (Note 5)	V <sub>R</sub>						
RMS Reverse Voltage	V <sub>R(RMS)</sub>	35	70	140	280	420	V
Average Rectified Output Current (Note 1)	I <sub>O</sub>	3.0					A
@ T <sub>A</sub> = 55°C							
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	125					A
Forward Voltage	V <sub>FM</sub>	0.95			1.25	1.7	V
@ I <sub>F</sub> = 3.0A							
Peak Reverse Current	I <sub>RM</sub>	5.0					μA
@ T <sub>A</sub> = 25°C							
at Rated DC Blocking Voltage (Note 5)							
@ T <sub>A</sub> = 100°C							
Reverse Recovery Time (Note 3)	t <sub>rr</sub>	50				75	ns
Typical Total Capacitance (Note 2)	C <sub>T</sub>	60				30	pF
Typical Thermal Resistance	R <sub>θJA</sub> R <sub>θJC</sub> R <sub>θJL</sub>	60 (Note 1) 15 10					°C/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<sub>F</sub> = 0.5A, I<sub>R</sub> = 1.0A, I<sub>rr</sub> = 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.



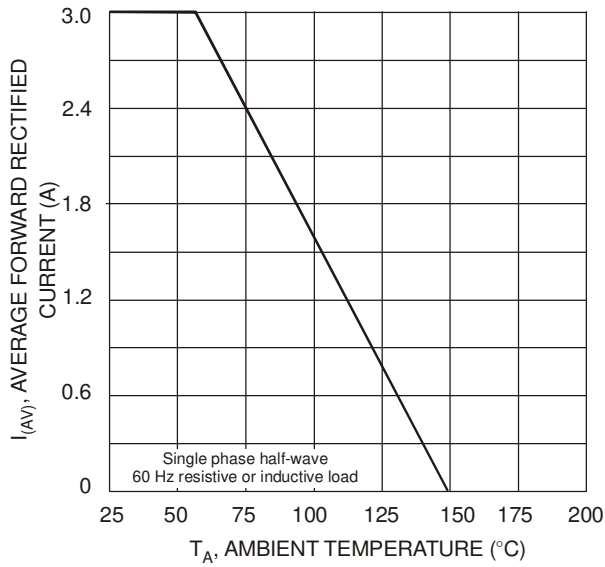


Fig. 1 Forward Current Derating Curve

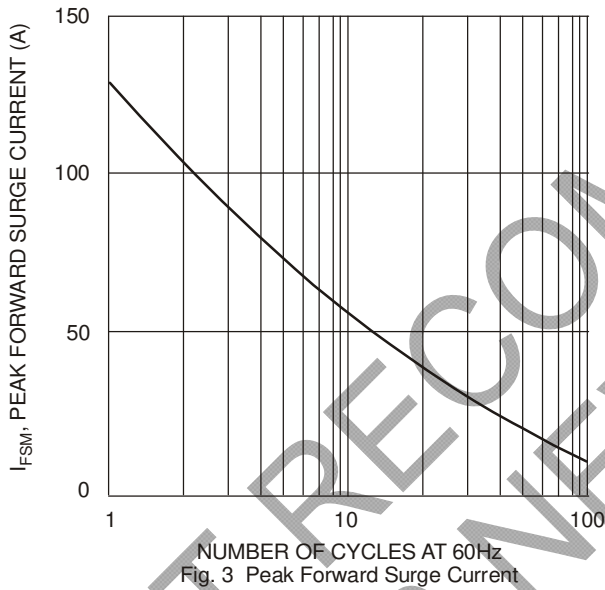


Fig. 3 Peak Forward Surge Current

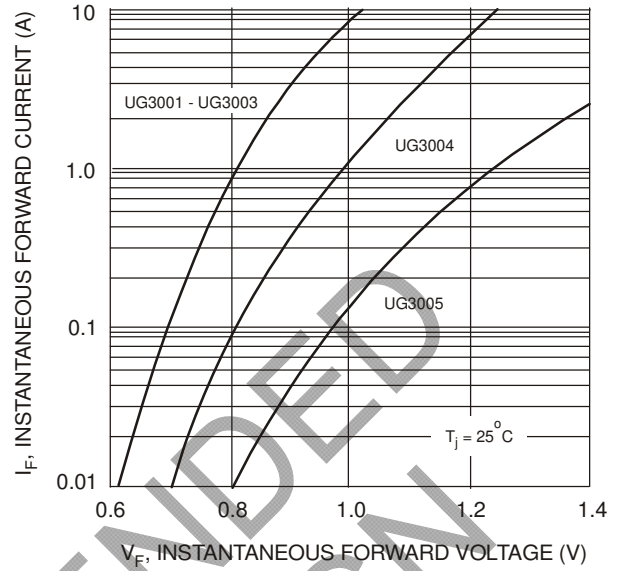


Fig. 2 Typical Forward Characteristics

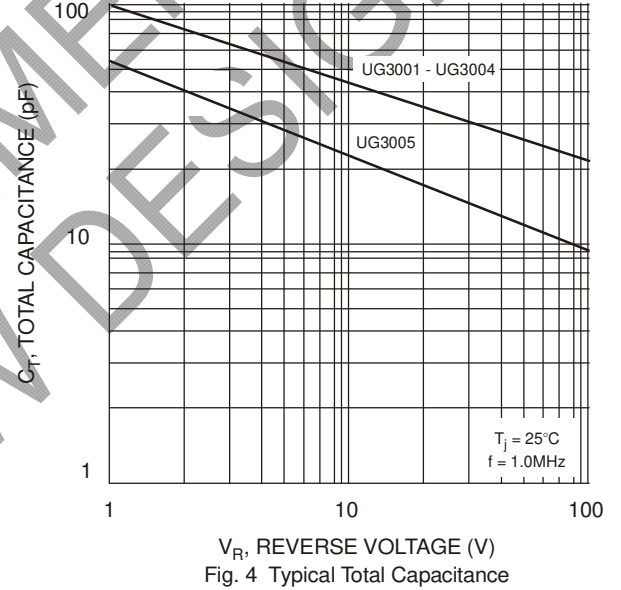
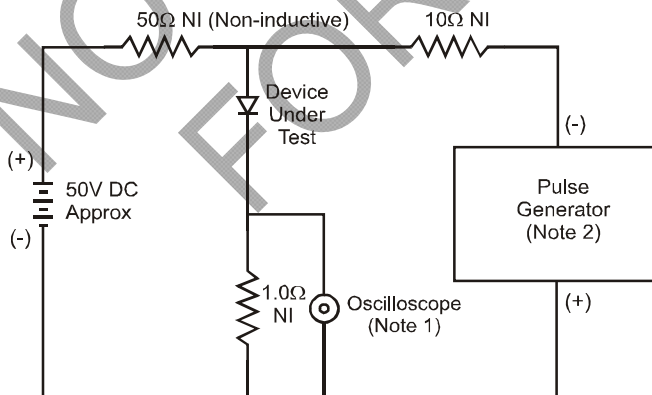
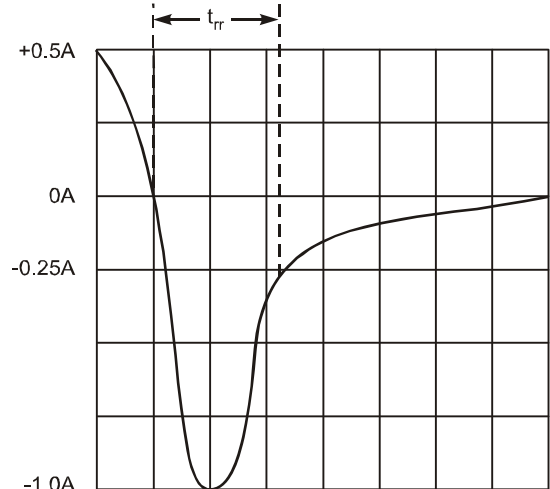


Fig. 4 Typical Total Capacitance



Notes:

1. Rise Time = 7.0ns max. Input Impedance =  $1.0\text{M}\Omega$ , 22pF.
2. Rise Time = 10ns max. Input Impedance =  $50\Omega$ .



Set time base for 50/100 ns/cm

Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

## Ordering Information (Note 6)

Device	Packaging	Shipping
UG3001-B	DO-201AD	500/Bulk
UG3001-T	DO-201AD	1.2K/Tape & Reel, 13-inch
UG3002-B	DO-201AD	500/Bulk
UG3002-T	DO-201AD	1.2K/Tape & Reel, 13-inch
UG3003-B	DO-201AD	500/Bulk
UG3003-T	DO-201AD	1.2K/Tape & Reel, 13-inch
UG3004-B	DO-201AD	500/Bulk
UG3004-T	DO-201AD	1.2K/Tape & Reel, 13-inch
UG3005-B	DO-201AD	500/Bulk
UG3005-T	DO-201AD	1.2K/Tape & Reel, 13-inch

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

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