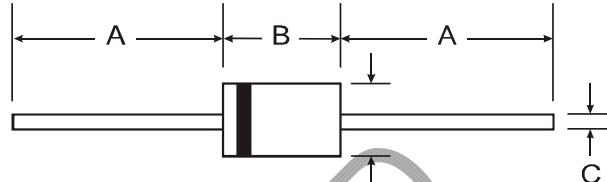


Features

- 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

@ $T_A = 25^\circ\text{C}$ 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_{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			3.0			A
@ $T_A = 55^\circ\text{C}$							
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}			125			A
Forward Voltage @ $I_F = 3.0\text{A}$	V_{FM}		0.95		1.25	1.7	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage (Note 5)	I_{RM}		5.0		100		μA
@ $T_A = 100^\circ\text{C}$							
Reverse Recovery Time (Note 3)	t_{rr}		50		75		ns
Typical Total Capacitance (Note 2)	C_T		60		30		pF
Typical Thermal Resistance		$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$		60 (Note 1)	15	10	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}			-65 to +150			$^\circ\text{C}$

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 $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{rr} = 0.25\text{A}$. 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.

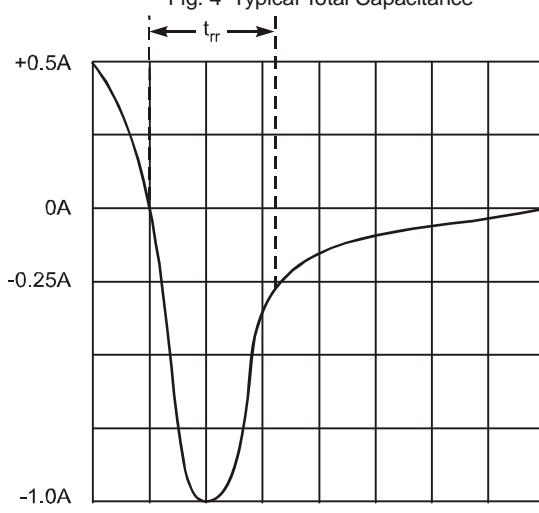
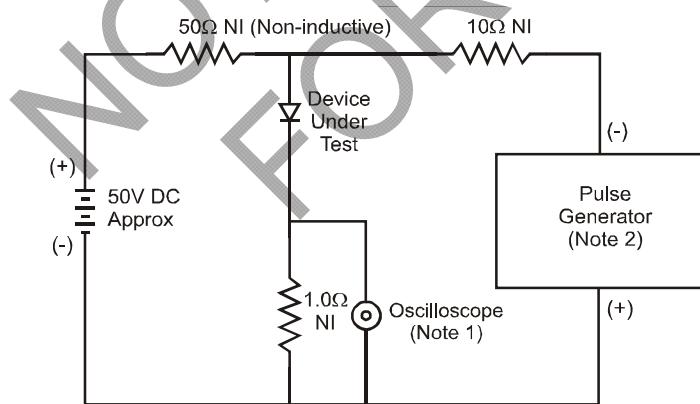
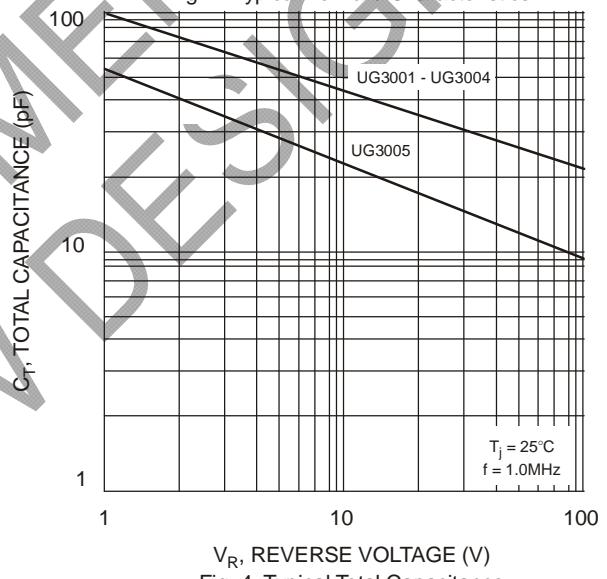
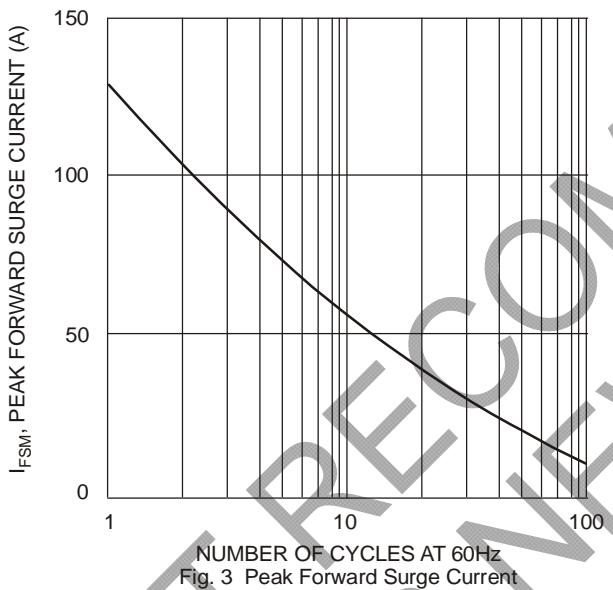
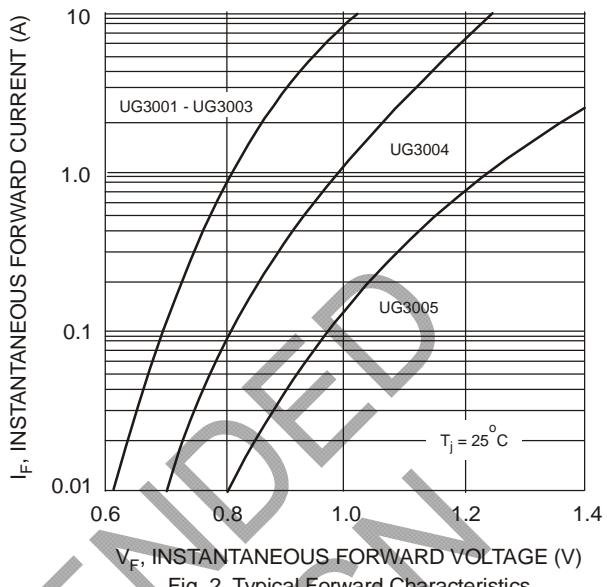
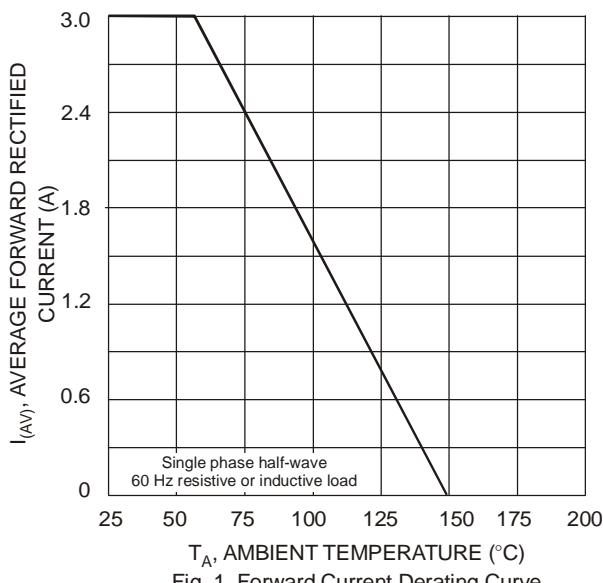


Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

Ordering Information (Note 6)

Device	Packaging	Shipping
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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