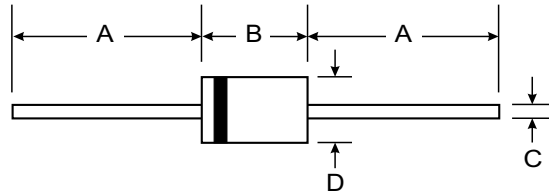


Features

- Glass Passivated Die Construction
- Diffused Junction
- Ultra-Fast Switching for High Efficiency
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 30A Peak
- Low Reverse Leakage Current
- Plastic Material: UL Flammability Classification Rating 94V-0



Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.35 grams (approx.)
- Mounting Position: Any

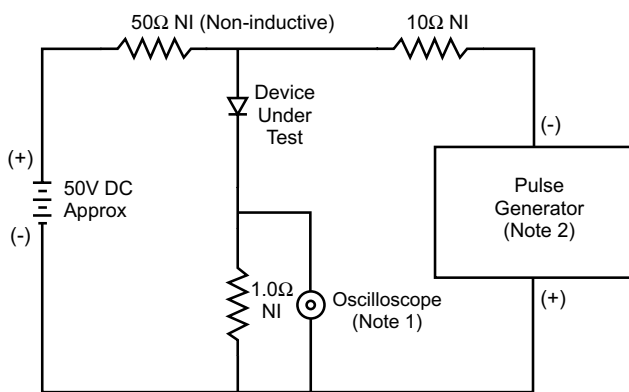
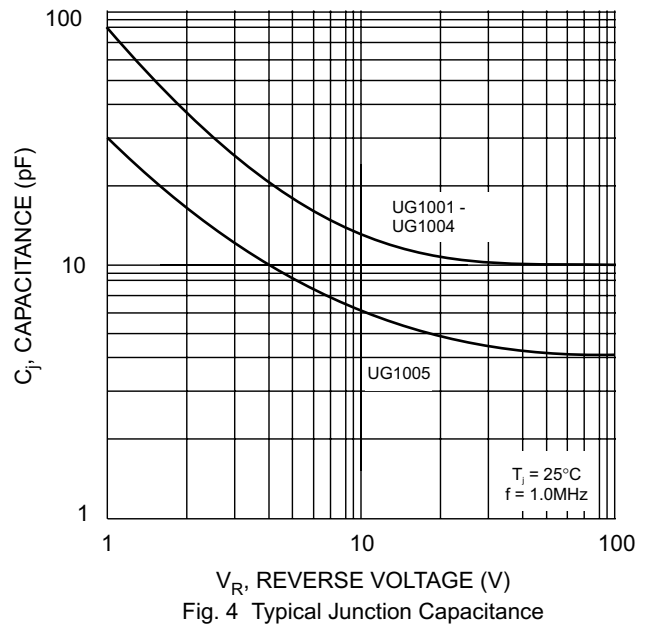
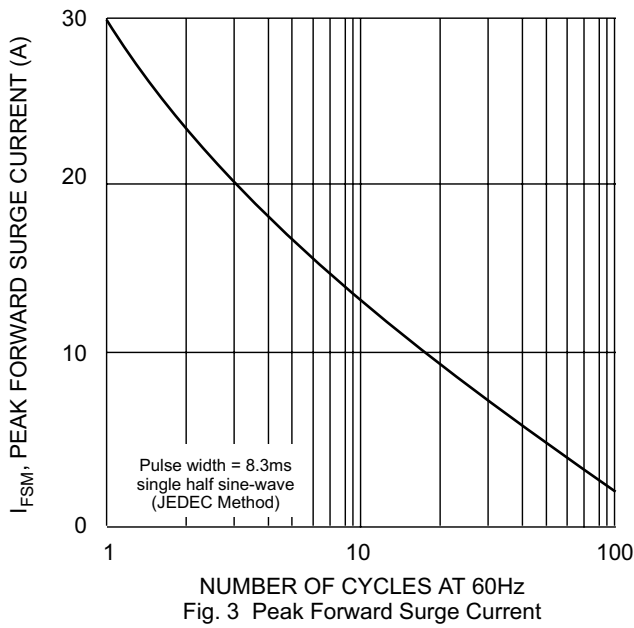
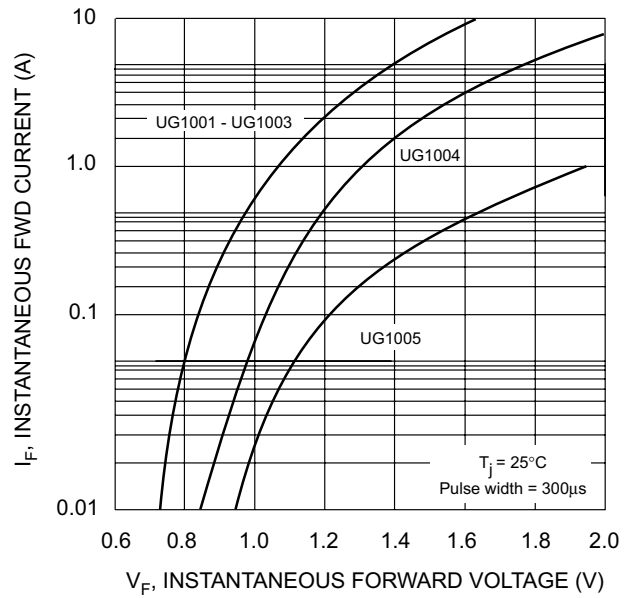
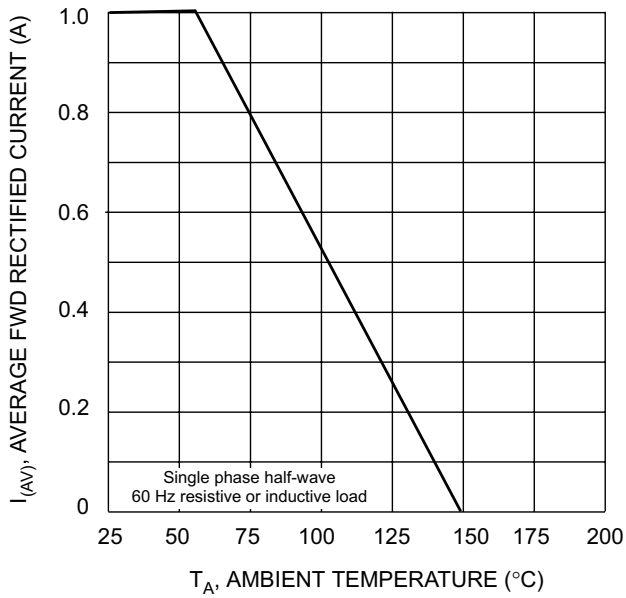
DO-41		
Dim	Min	Max
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

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

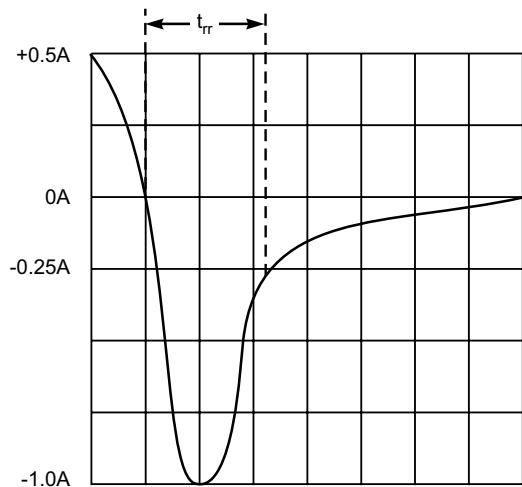
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	UG1001	UG1002	UG1003	UG1004	UG1005	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	50	100	200	400	600	V
Working Peak Reverse Voltage	V _{RWM}						
DC Blocking Voltage	V _R						
RMS Reverse Voltage	V _{R(RMS)}	35	70	140	280	420	V
Average Rectified Output Current (Note 1)	I _o	1.0					A
		@ T _A = 55°C					
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on Rated Load (JEDEC Method)	I _{FSM}	30					A
Forward Voltage	V _{FM}	1.0			1.3	1.7	V
		@ I _F = 1.0A					
Peak Reverse Current	I _{RM}	5.0					μA
		@ T _A = 25°C					
		@ T _A = 100°C					
Reverse Recovery Time (Note 3)	t _{rr}	50				75	ns
Typical Junction Capacitance (Note 2)	C _j	20				10	pF
Typical Thermal Resistance Junction to Ambient	R _{θJA}	95					K/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 4.0V DC.
 3. Measured with I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A. See figure 5.



- 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