

UG1005-UG1007(LS)

ULTRA FAST GLASS PASSIVATED RECTIFIERS

FEATURES

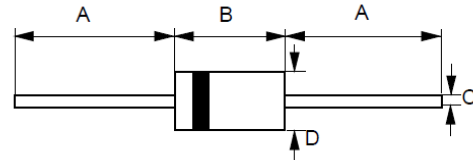
- Glass passivated chip
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Qualified according to AEC-Q101 Rev_C
- Easily cleaned with Freon, Alcohol, Chloroethene and similar solvents
- Plastic material has UL flammability classification 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Package : JEDEC DO-41 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position : Any

REVERSE VOLTAGE – 600 to 1000 Volts FORWARD CURRENT – 1.0 Ampere

DO-41



DO-41		
Dim	Min.	Max.
A	25.4	-
B	4.10	5.20
C	0.71 ϕ	0.86 ϕ
D	2.00 ϕ	2.70 ϕ
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

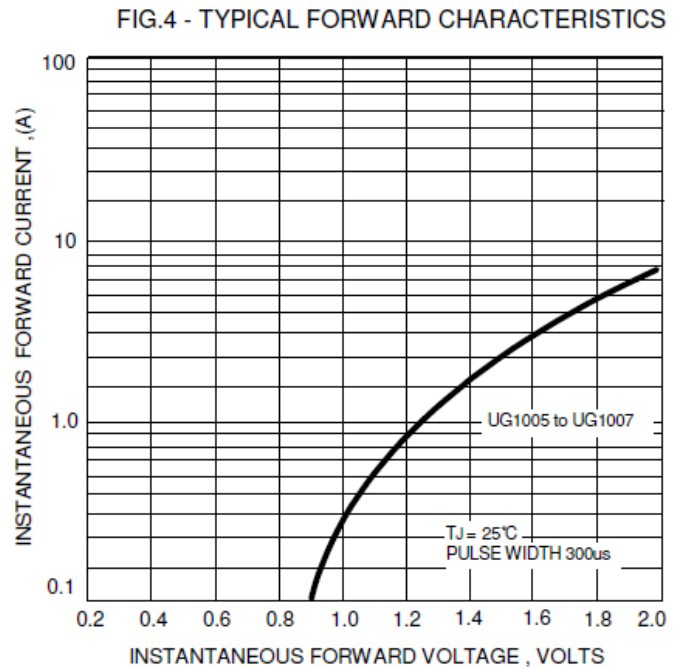
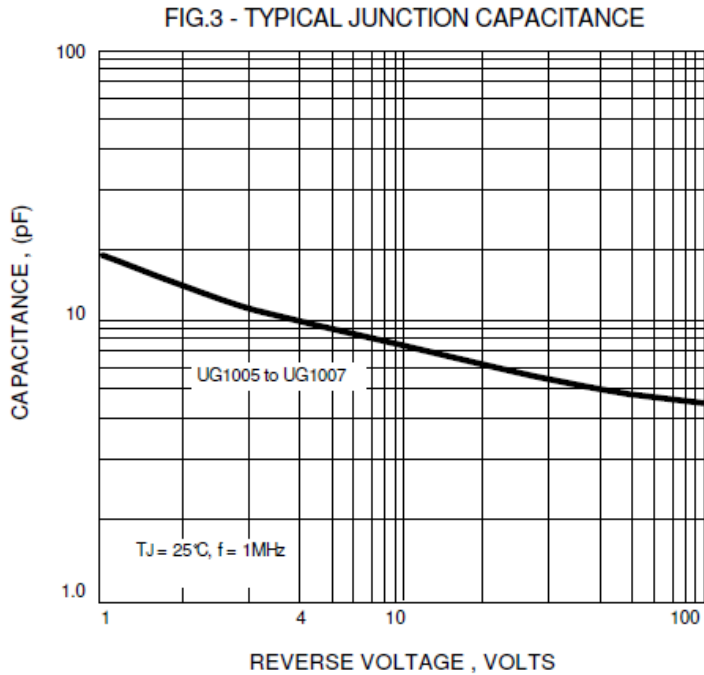
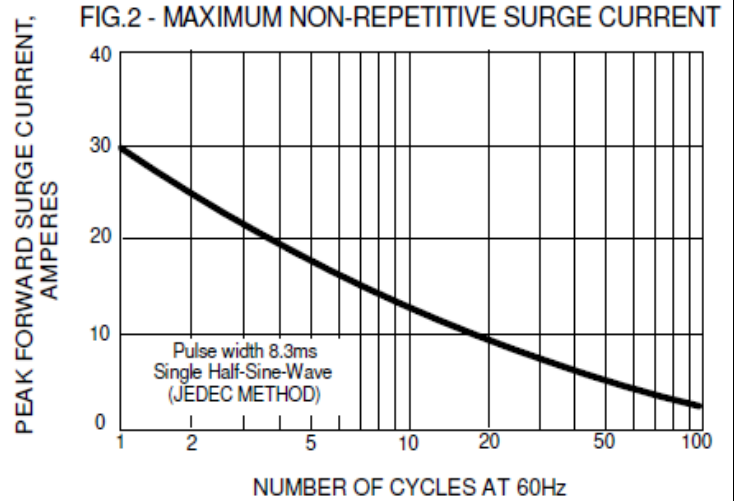
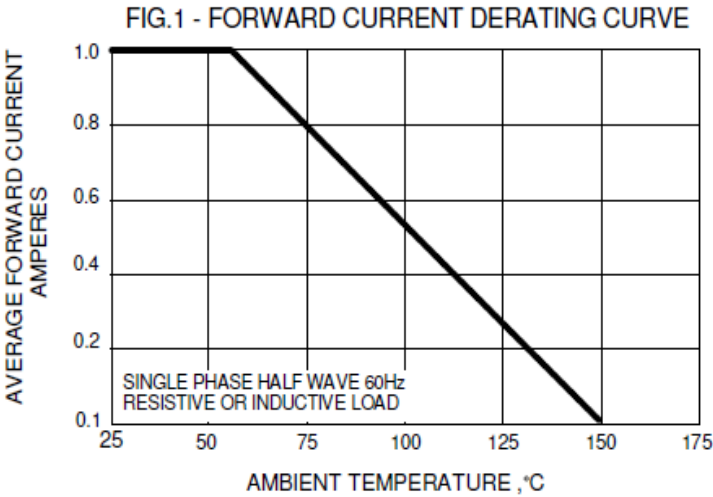
Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	UG1005	UG1007	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	600	1000	V
Maximum RMS Voltage	V_{RMS}	420	700	V
Maximum DC Blocking Voltage	V_{DC}	600	1000	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	1.0		A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	30		A
Maximum forward Voltage at 1.0A DC	V_F	1.7		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5		μ A
		100		
Maximum Reverse Recovery Time (Note 4)	t_{rr}	75		ns
Typical Junction Capacitance (Note 5)	C_T	10		pF
Typical Thermal Resistance (Note 6)	R_{thJA}	45		$^{\circ}$ C/W
	R_{thJL}	12		
	R_{thJC}	12		
Storage / Operating Temperature Range	T_{STG}, T_J	-55 to +150		$^{\circ}$ C

Note :

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Measured with $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$.
5. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
6. Thermal Resistance Junction to Ambient.

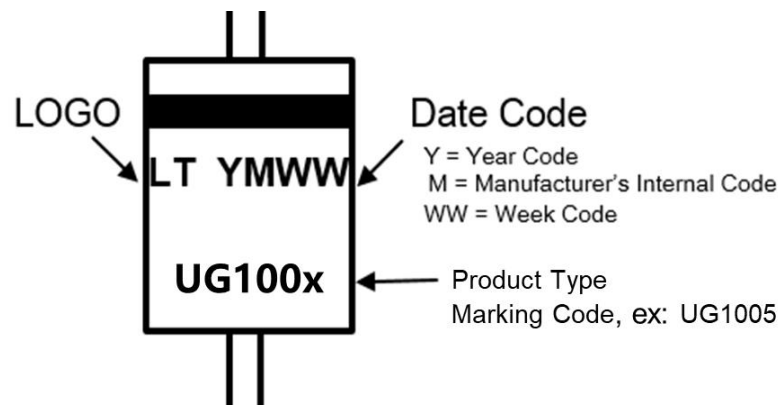
RATING AND CHARACTERISTIC CURVES
UG1005-UG1007



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
UG1005_HF	DO-41	5000pcs	Tape & Reel
UG1007_HF	DO-41	5000pcs	Tape & Reel
UG1007_HF-A52	DO-41	3000pcs	Ammo 52

Marking Information :



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