

**ULTRA FAST  
GLASS PASSIVATED RECTIFIER**

**REVERSE VOLTAGE – 1000 Volts  
FORWARD CURRENT – 1.0 Amperes**

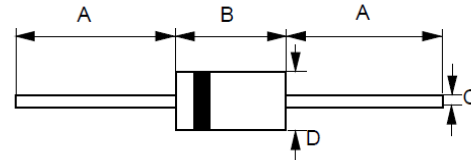
**FEATURES**

- 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 : Molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.004 ounces, 0.13 grams
- Mounting position : Any

**T-1**



T-1		
Dim	Min.	Max.
A	25.4	-
B	2.60	3.20
C	0.53 $\varnothing$	0.64 $\varnothing$
D	2.20 $\varnothing$	2.60 $\varnothing$
All Dimensions in millimeter		

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC Blocking Voltage	$V_{DC}$	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	$I_R$	5 100	$\mu$ A
Maximum Reverse Recovery Time (Note 4)	$t_{rr}$	75	ns
Typical Junction Capacitance (Note 5)	$C_T$	10	pF
Typical Thermal Resistance (Note 6)	$R_{thJC}$ $R_{thJA}$	20 100	$^{\circ}$ C/W
Storage / Operating Temperature Range	$T_J, T_{STG}$	-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 Case and Ambient.

**RATING AND CHARACTERISTIC CURVES  
UD7G**

FIG.1 - FORWARD CURRENT DERATING CURVE

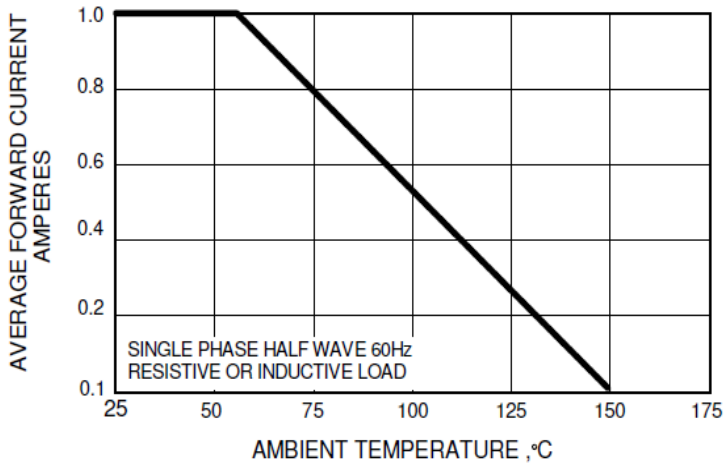


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

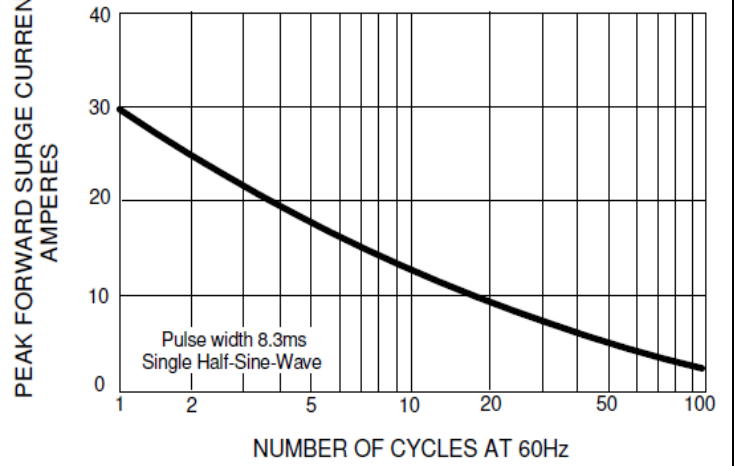


FIG.3 - TYPICAL JUNCTION CAPACITANCE

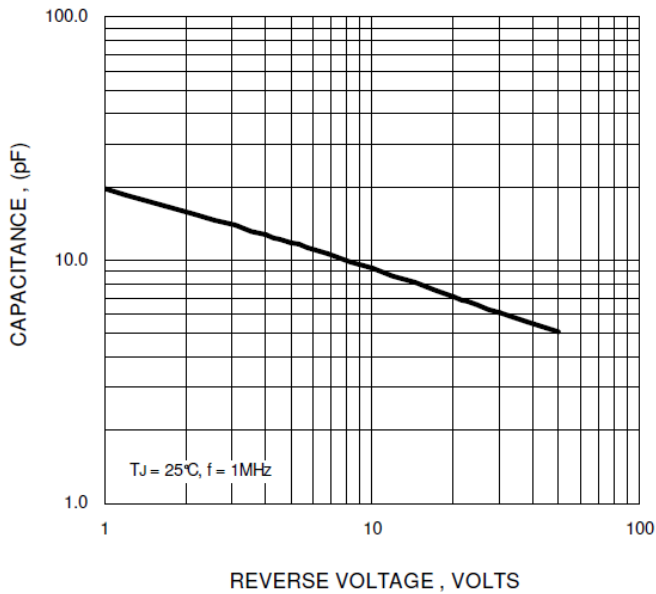


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

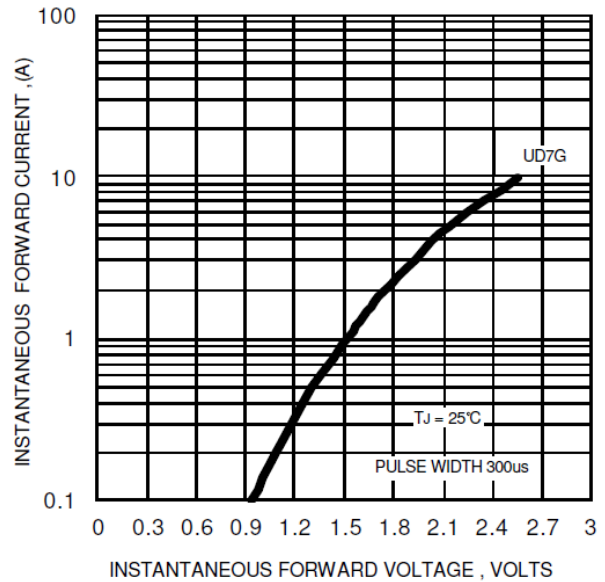
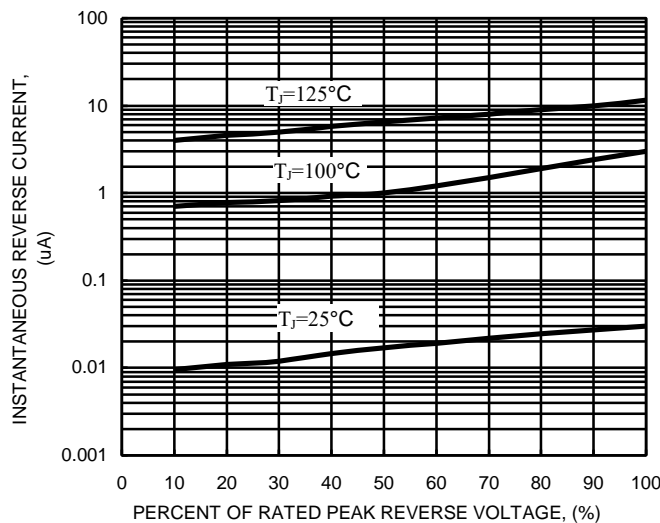


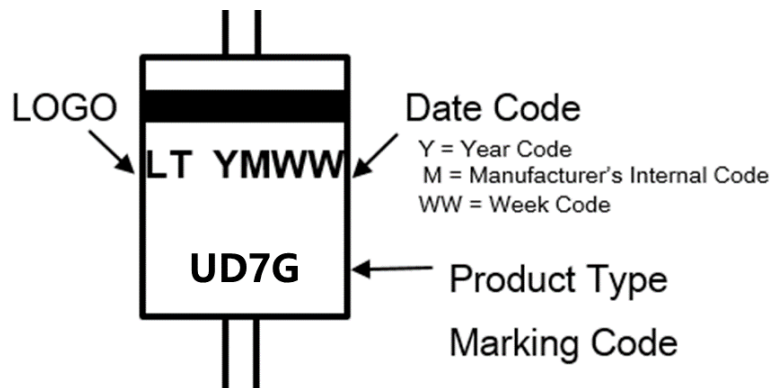
FIG.5 TYPICAL REVERSE CHARACTERISTICS



**Ordering Information :**

Part Number	Package	Packing	
		Qty.	Carrier
UD7G_HF	T-1	5000pcs	Tape & Reel

**Marking Information :**



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