



UD7G(LS)

ULTRA FAST GLASS PASSIVATED RECTIFIER

REVERSE VOLTAGE – 1000 Volts FORWARD CURRENT – 1.0 Amperes

FEATURES

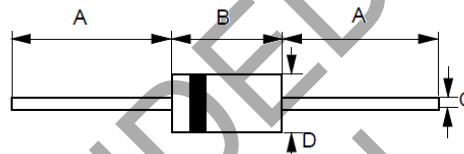
- Glass passivated chip
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Qualified according to AEC-Q101 Rev_C
- Easily cleaned with Freon, Alcohol, Chlorothene and similar solvents
- Plastic material has UL flammability classification 94V-0
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**
- **For automotive applications requiring specific change control (i.e. parts qualified to AEC-Q100/101/104/200, PPAP capable, and manufactured in IATF 16949 certified facilities), please [contact us](#) or your local Diodes representative.**

<https://www.diodes.com/quality/product-definitions/>

MECHANICAL DATA

- Package: T-1
- Package Material: Molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.004 ounces, 0.13 grams (Approximate)
- Mounting position: Any

T-1



T-1		
Dim	Min.	Max.
A	25.4	-
B	2.60	3.20
C	0.53 ϕ	0.64 ϕ
D	2.20 ϕ	2.60 ϕ
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	μA
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	$^{\circ}C$

Notes :

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

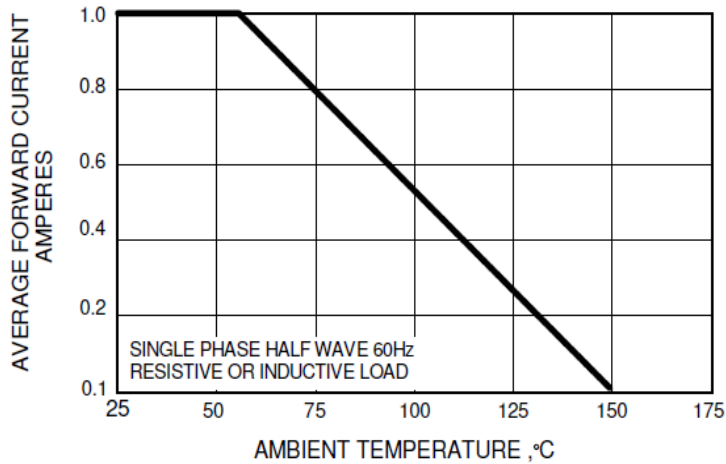


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

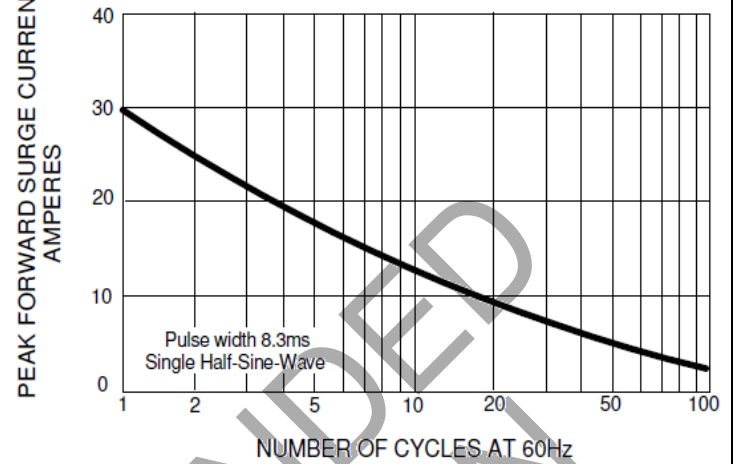


FIG.3 - TYPICAL JUNCTION CAPACITANCE

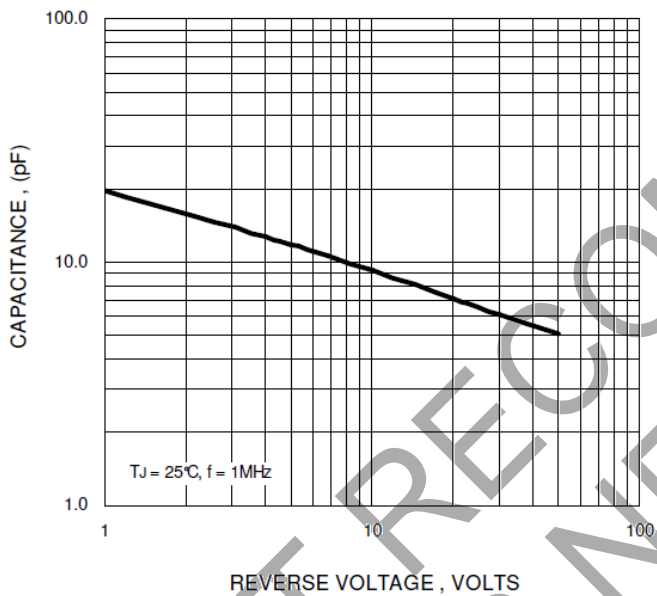


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

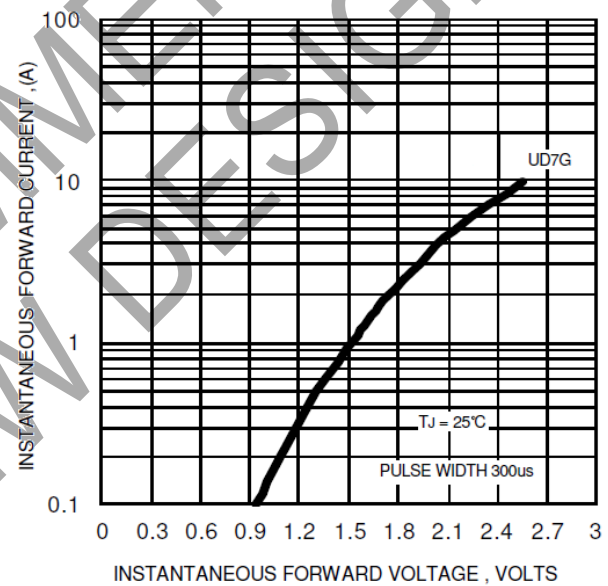
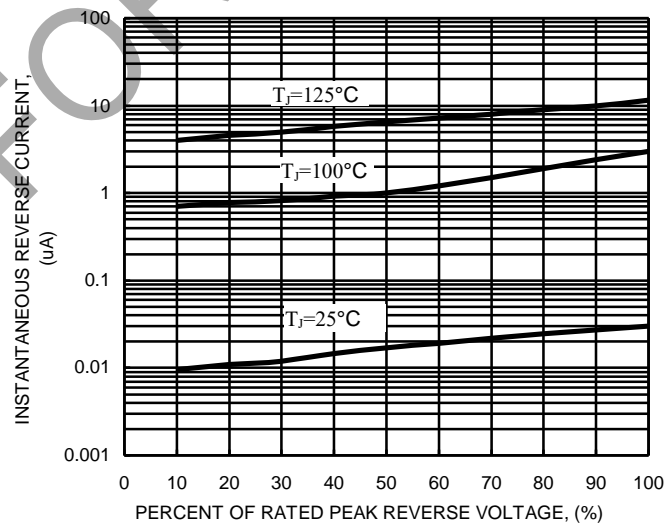


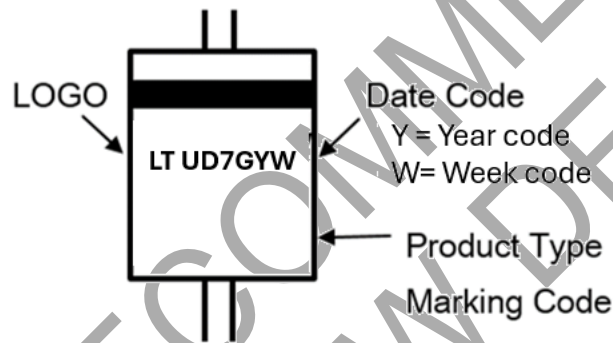
FIG.5 TYPICAL REVERSE CHARACTERISTICS



Ordering Information :

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

Marking Information :



Y = Year code

Week	Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
W01-W26	K	M	O	Q	S	U	W	Y	A	C	E	
W27-W52	L	N	P	R	T	V	X	Z	B	D	F	

W = Week code

Week	Code	Week	Code	Week	Code	Week	Code
W01	A	W14	N	W27	A	W40	N
W02	B	W15	O	W28	B	W41	O
W03	C	W16	P	W29	C	W42	P
W04	D	W17	Q	W30	D	W43	Q
W05	E	W18	R	W31	E	W44	R
W06	F	W19	S	W32	F	W45	S
W07	G	W20	T	W33	G	W46	T
W08	H	W21	U	W34	H	W47	U
W09	I	W22	V	W35	I	W48	V
W10	J	W23	W	W36	J	W49	W
W11	K	W24	X	W37	K	W50	X
W12	L	W25	Y	W38	L	W51	Y
W13	M	W26	Z	W39	M	W52	Z

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