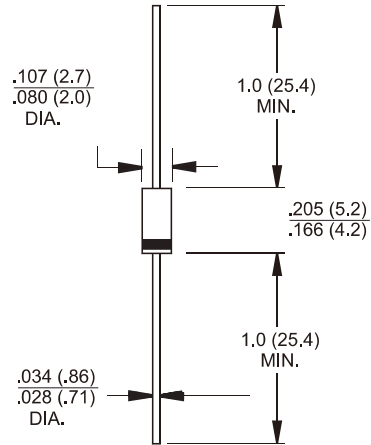


UF4001 - UF4007

1.0 AMP. Glass Passivated High Efficient Rectifiers

DO-41/DO-204AL



Features

- ◇ Plastic package has Underwriters Laboratory Flammability Classification 94V0
- ◇ Glass passivated chip junction
- ◇ Low cost
- ◇ Ultrafast recovery time for high efficiency
- ◇ High efficiency, low VF
- ◇ Low leakage current
- ◇ High surge current capability
- ◇ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ◇ Case: JEDEC DO-204AL molded plastic body over passivated chip
- ◇ Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026
- ◇ Polarity: Color band denotes cathode
- ◇ Mounting Position: Any
- ◇ High temperature soldering guaranteed: 260°C/10 seconds/.375" (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ◇ Weight: 0.34 grams

Dimensions in inches and (millimeters)



Marking Diagram

- UF400X = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	Units
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current .375 (9.5mm) Lead Length @T _A = 75 °C	I _{F(AV)}	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30							A
Maximum Instantaneous Forward Voltage @1.0A	V _F	1.0			1.7			V	
Maximum DC Reverse Current at @ T _A =25 °C Rated DC Blocking Voltage(Note 1)@T _A =125 °C	I _R				5.0 150			uA uA	
Maximum Reverse Recovery Time (Note 4)	T _{rr}	50			75			nS	
Typical Junction Capacitance (Note 2)	C _j	17							pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJL}				60 15			°C/W	
Operating/Storage Temperature Range	T _J , T _{STG}	-65 to + 150							°C

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.
3. Thermal Resistance from junction to ambient and from Junction to Lead Length .375"(9.5mm), P.C.B. Mounted.
4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (UF4001 THRU UF4007)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

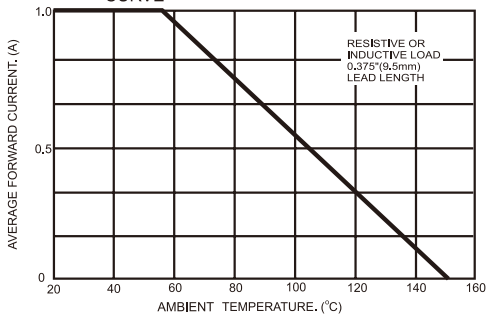


FIG.2- TYPICAL FORWARD CHARACTERISTICS

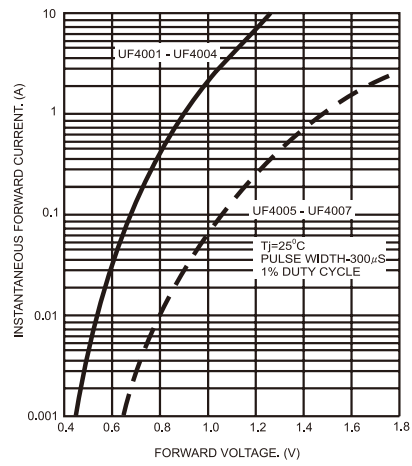


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

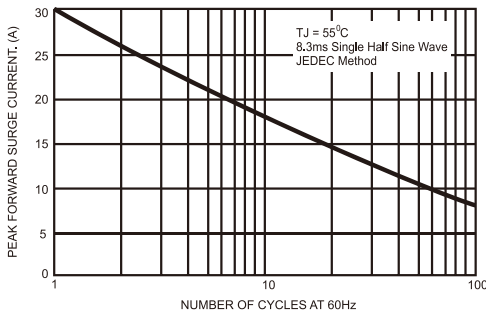


FIG.5- TYPICAL REVERSE CHARACTERISTICS

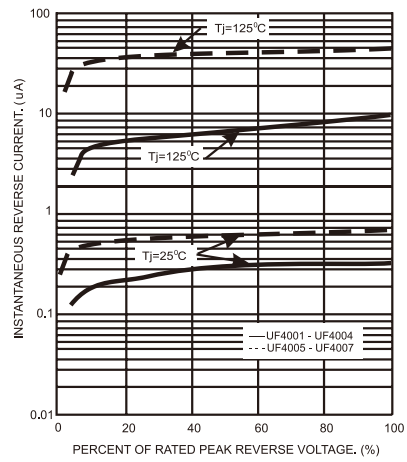


FIG.4- TYPICAL JUNCTION CAPACITANCE

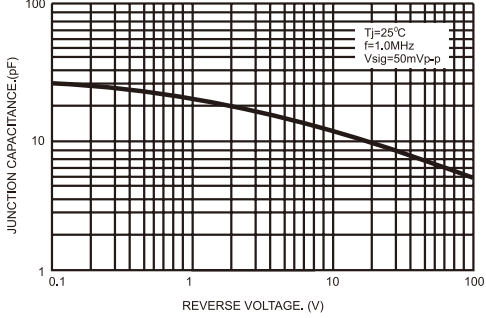
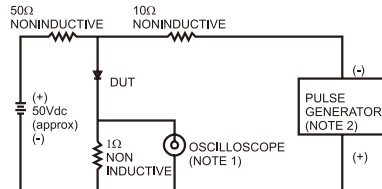


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



- NOTES: 1. Rise Time = 7ns max. Input Impedance = 1 megohm 22pF
 2. Rise Time = 10ns max. Source Impedance = 50 ohms

