

Features

- ✧ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✧ 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 plate, lead free, solderable per MIL-STD-750, Method 2026
- ✧ Polarity: Color band denotes cathode
- ✧ Mounting Position: Any
- ✧ High temperature soldering guaranteed: 260°C/10s
- ✧ Weight: 0.34 grams

Ordering Information (example)

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
UF4001	DO-41	3K / AMMO box	52mm	A0	A0G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	I _{F(AV)}	1							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 (Note 1) @ 1 A	V _F	1.0				1.7			V
Maximum Reverse Current @ Rated VR T _A =25 °C T _A =125 °C	I _R	5 150							uA
Maximum Reverse Recovery Time (Note 2)	T _{rr}	50				75			nS
Typical Junction Capacitance (Note 3)	C _j	17							pF
Typical Thermal Resistance	R _{θjA} R _{θjL}	60 15							°C/W
Operating Temperature Range	T _J	- 55 to + 150							°C
Storage Temperature Range	T _{STG}	- 55 to + 150							°C

Note 1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note 2: Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $IRR=0.25\text{A}$

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

RATINGS AND CHARACTERISTIC CURVES (UF4001 THRU UF4007)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

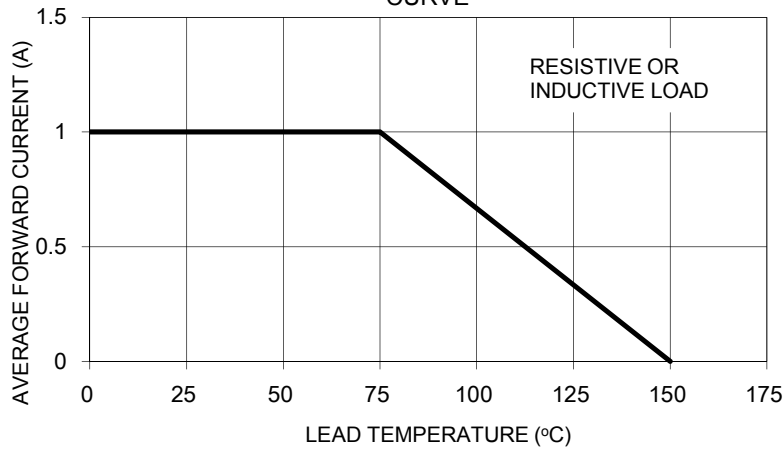


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

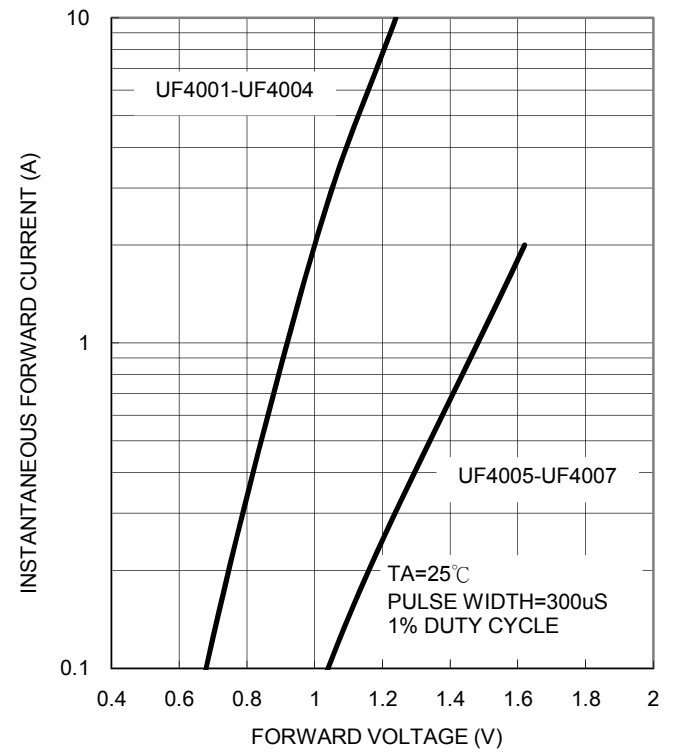


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

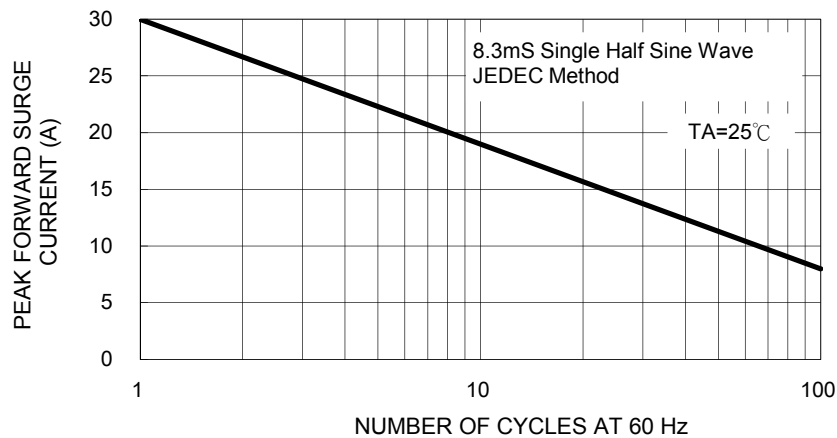


FIG. 4 TYPICAL JUNCTION CAPACITANCE

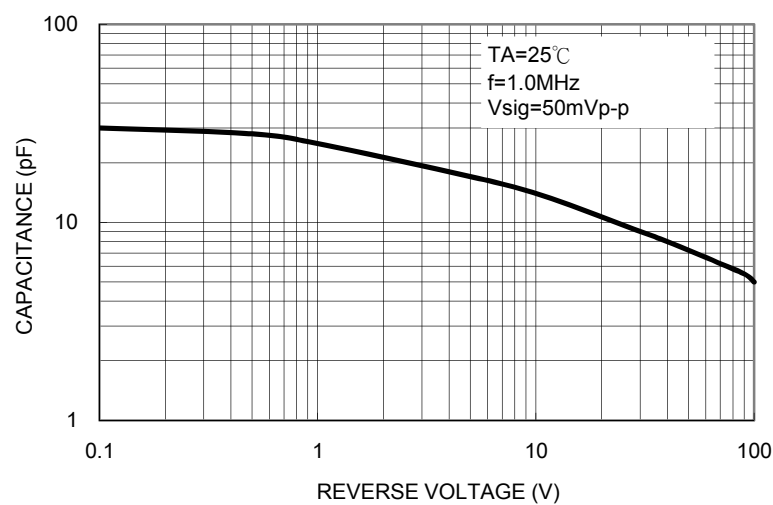


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

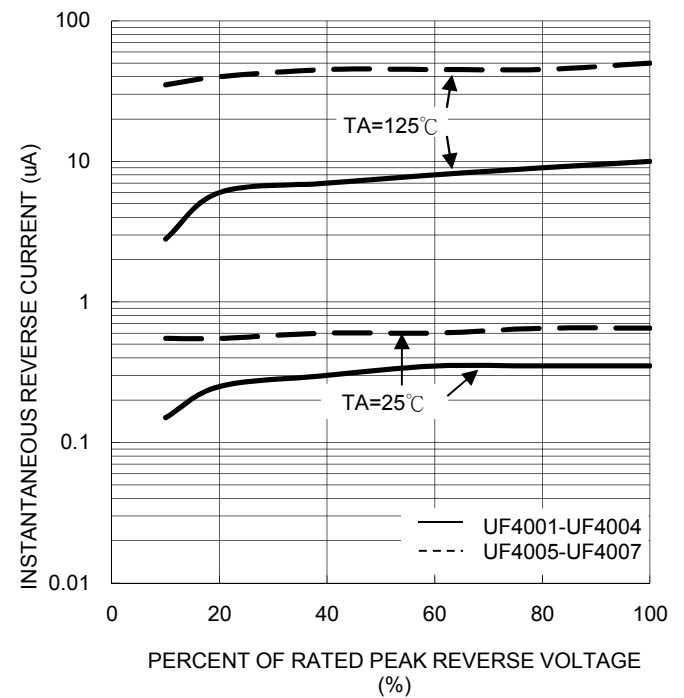
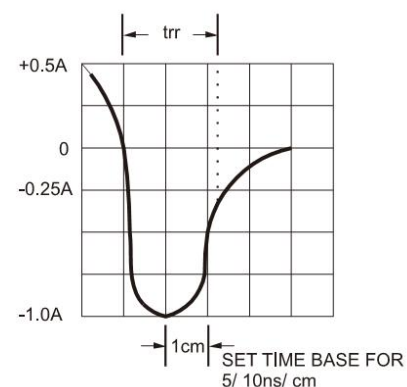
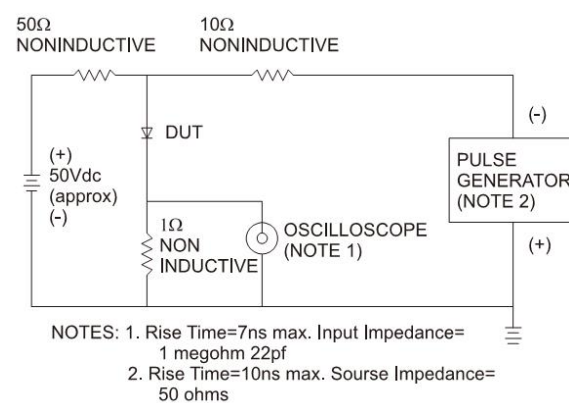


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

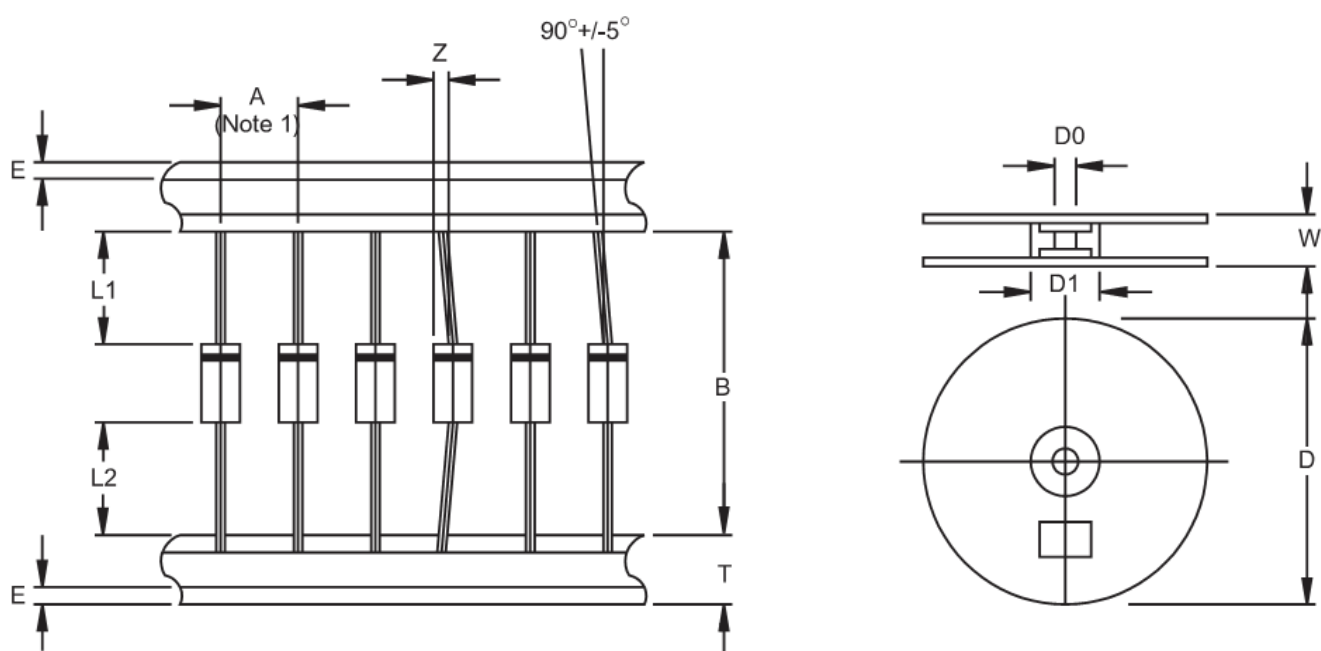


Ordering information

Part No.	Package	Packing	INNER TAPE	Packing code	Packing code (Green)
UF400x	DO-41	3K / AMMO box	52mm	A0	A0G
	DO-41	3K / AMMO box	26mm	A1	A1G
	DO-41	5K / 13" Reel	52mm	R0	R0G
	DO-41	5K / 13" Reel	52mm	R1	R1G
	DO-41	1K / Bulk packing		B0	B0G

Note: "x" is Device Code from "1" thru "7".

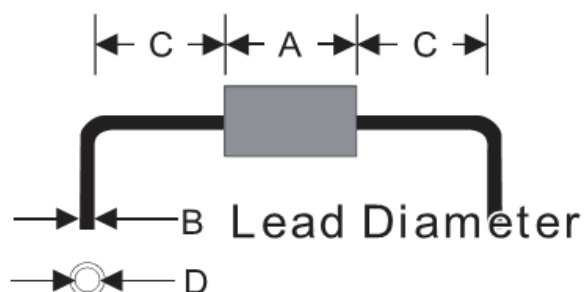
AXIAL LEAD TAPING SPECIFICATIONS



Outline	A	B	Z	T	E	L1-L2	D	D1	D0	W
	±0.5	±1.5	MAX	±0.4	MAX	MAX		±0.3	±0.4	±1.0
DO-41	5	52.4	1.2	6	0.8	1	330	85.7	16.6	76

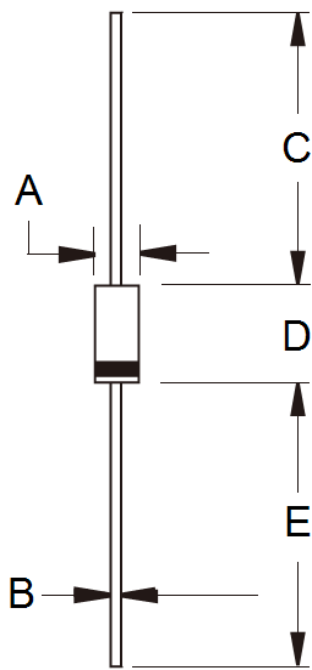
Unit (mm)

Suggested Mounting Hole Rule



Symbol	Unit(mm)
A	5.1
B	0.8
C	3.0
D	1.2

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.00	2.70	0.079	0.106
B	0.71	0.86	0.028	0.034
C	25.40	-	1.000	-
D	4.20	5.20	0.165	0.205
E	25.40	-	1.000	-

Marking Diagram



- P/N

= Specific Device Code
- G

= Green Compound
- YWW

= Date Code
- F

= Factory Code