

FR4001-G Thru. FR4007-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

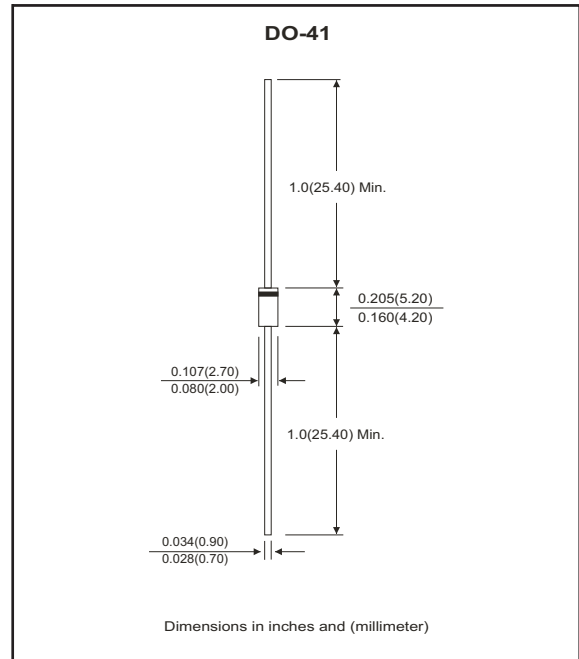


Features

- Low cost construction.
- Fast switching for high efficiency.
- Low reverse leakage.
- High forward surge current capability.
- High soldering temperature guarantee: 260 °C/10 seconds, 0.375"(9.5mm) lead length at 5lbs(2.3kg) tension.

Mechanical data

- Epoxy: UL 94V-0 rate flame retardant
- Case: transfer molded plastic, DO-41
- Lead: Plated axial lead, solderable per MIL-STD-202E, method 208C
- Polarity: Indicated by cathode band
- Mounting position: Any
- Weight: 0.33 grams



Electrical Characteristics (at T_A=25 °C unless otherwise noted)

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%.

Parameter		Symbol	UF4001 -G	UF4002 -G	UF4003 -G	UF4004 -G	UF4005 -G	UF4006 -G	UF4007 -G	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 0.375"(9.5mm) lead length @T _A =55 °C		I _(AV)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	30							A
Maximum forward voltage at 1.0A DC		V _F	1.0				1.7			V
Maximum reverse current at rated DC blocking voltage	T _A =25°C	I _R	10							μA
	T _A =125°C		50							
Maximum reverse recovery time (Note 3)		t _{rr}	50				75			nS
Typical junction capacitance (Note 1)		C _J	15							PF
Typical thermal resistance (Note 2)		R _{θJA}	60							°C/W
Operating Junction temperature range		T _J	-55 ~ +150							°C
Storage temperature range		T _{STG}	-55 ~ +150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0Volts.
2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C. board mounted.
3. Reverse recovery time test condition: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

Rating and Characteristic Curves (UF4001-G Thru. UF4007-G)

Fig.1- Typical Forward Current Derating Curve

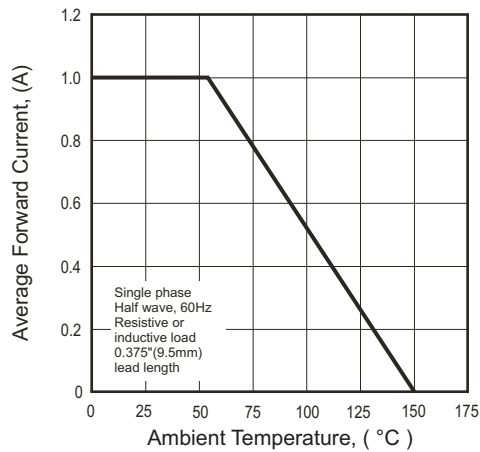


Fig.2 Max. Non-Repetitive Peak Forward Surge Current

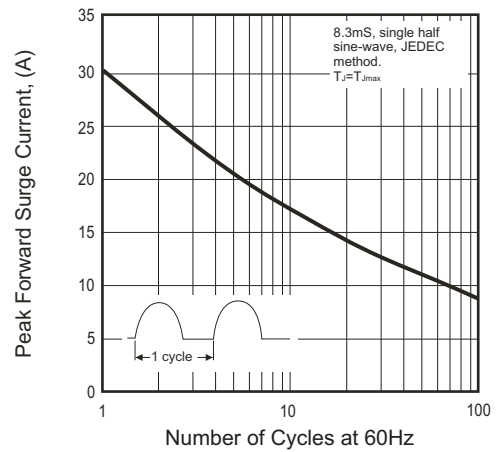


Fig.3- Typical Instantaneous Forward Characteristics

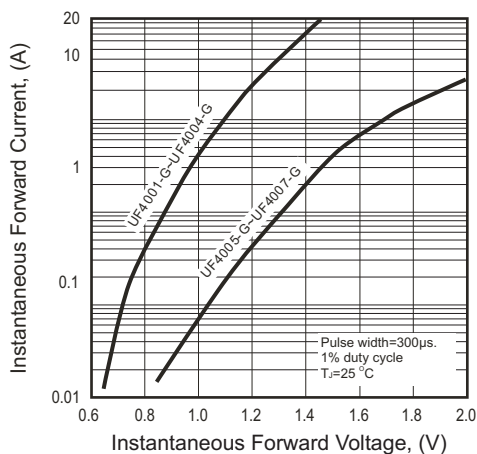


Fig.4- Typical Reverse Characteristics

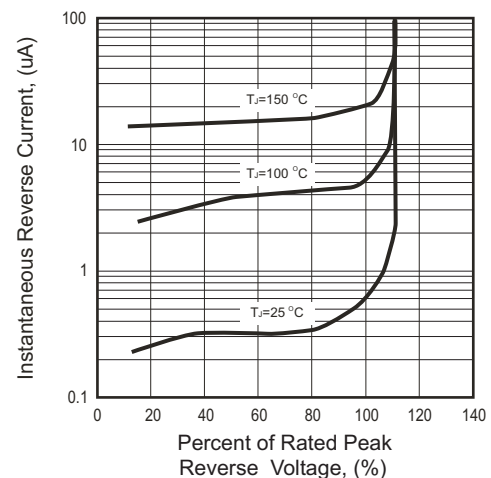


Fig.5- Typical Junction Capacitance

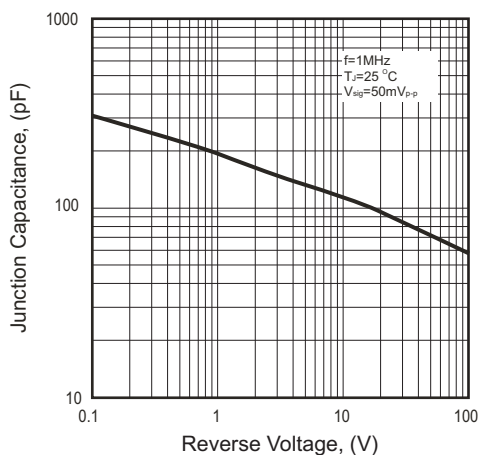
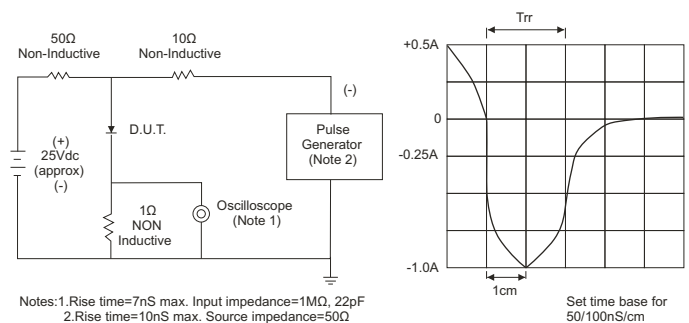
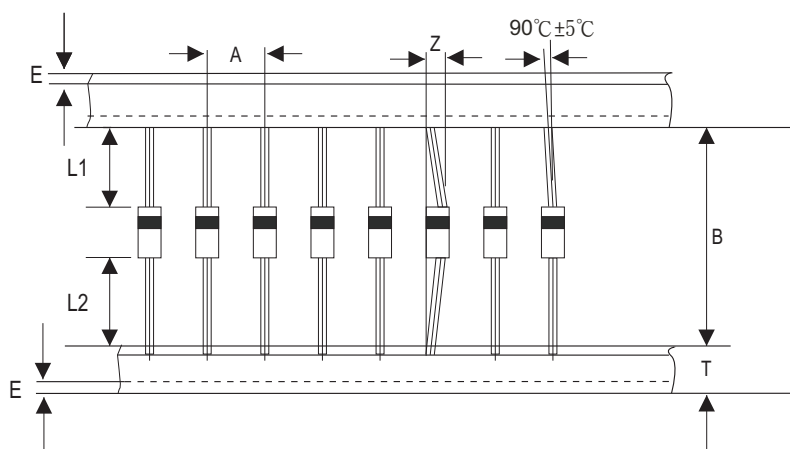


Fig.6 Test Circuit of Reverse Recovery Time Characteristics

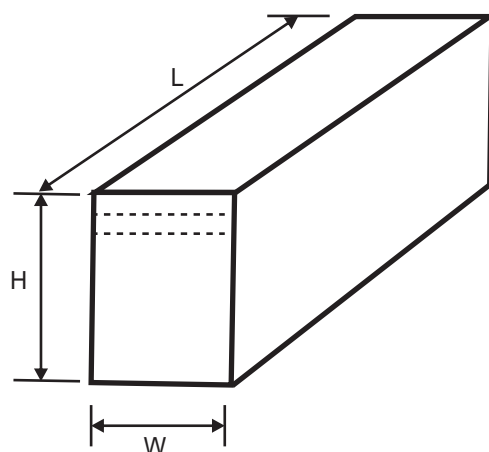


Ammo Box Packaging Specification For Axial- Lead Rectifiers



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.0 ± 0.5	52.4 ± 0.5	1.2 (max)	6.0 ± 0.4	0.8 (max)	1.0 (max)
	(inch)	0.197 ± 0.020	2.047 ± 0.020	0.048 (max)	0.236 ± 0.016	0.032 (max)	0.040 (max)

DO-41	SYMBOL	Box Length	Box Width	Box Height
	(mm)	260.0 ± 5.0	75.0 ± 5.0	142.0 ± 5.0
	(inch)	10.04 ± 0.197	3.07 ± 0.197	3.74 ± 0.197



Standard Package

Case Type	AMMO BOX		
	Inner Box (EA)	Box / Carton (EA)	CARTON (EA)
DO-41	5000	10	30000