

UF4001-G Thru. UF4007-G

Voltage: 50 to 1000 V

Current: 1.0 A

RoHS Device

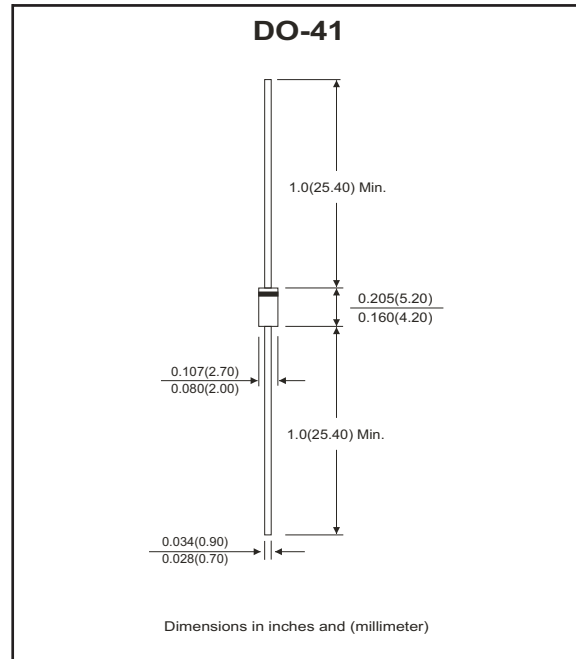


Features

- 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

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



Maximum Ratings and Electrical Characteristics

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 @ $T_A=55^\circ\text{C}$	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 $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	I_R	10 50							μA
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)	$R_{\theta JA}$	60							$^\circ\text{C/W}$
Operating temperature range	T_J	-55 ~ +150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ~ +150							$^\circ\text{C}$

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: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$.

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

Fig.1 Typical Forward Current Derating Curve

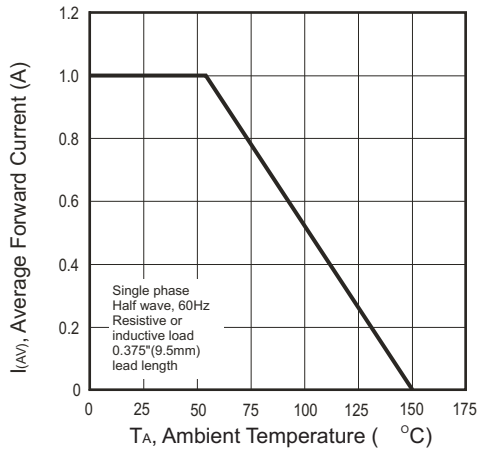


Fig.2 Max. Non-Repetitive Peak Forward Surge Current

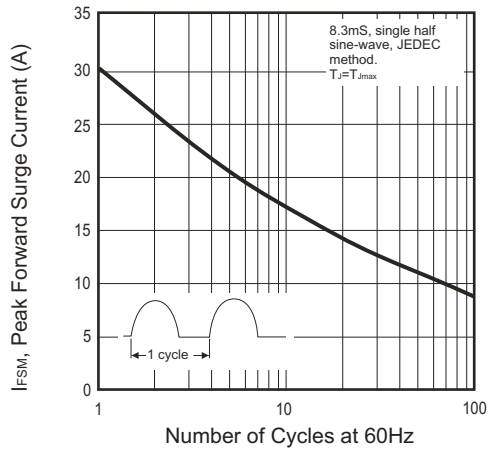


Fig.3 Typical Instantaneous Forward Characteristics

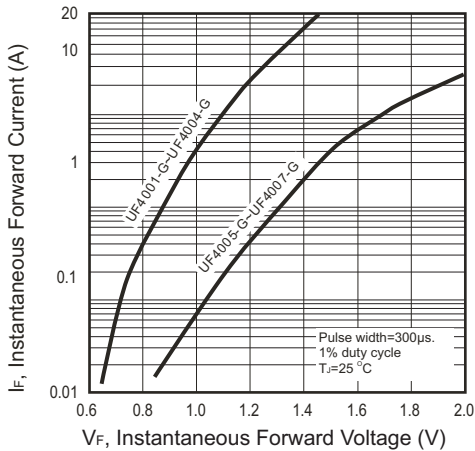


Fig.4 Typical Reverse Characteristics

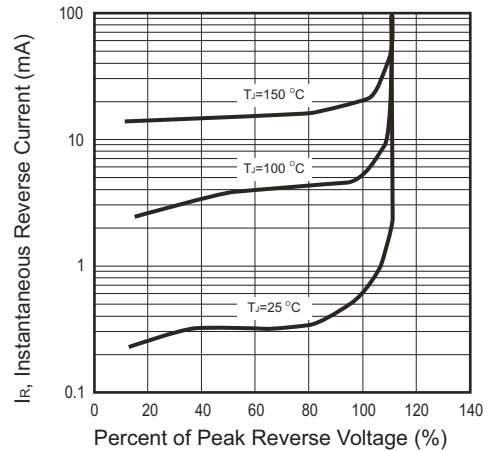


Fig.5 Typical Junction Capacitance

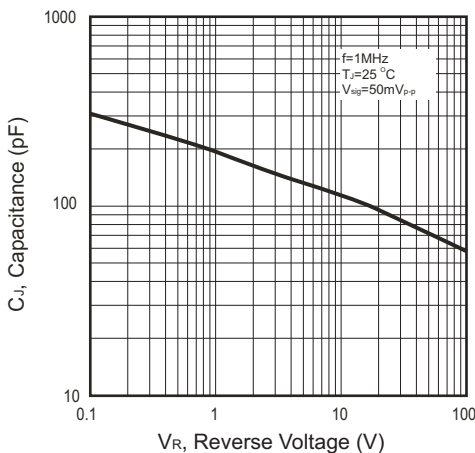
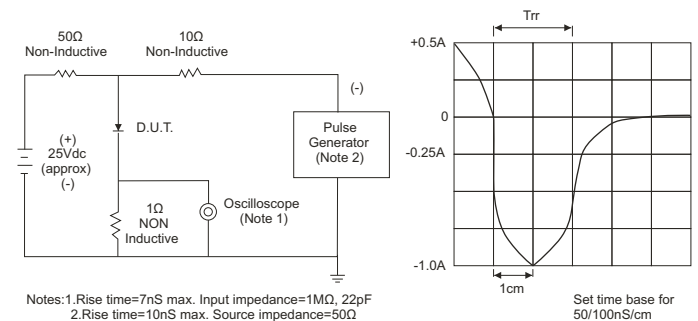
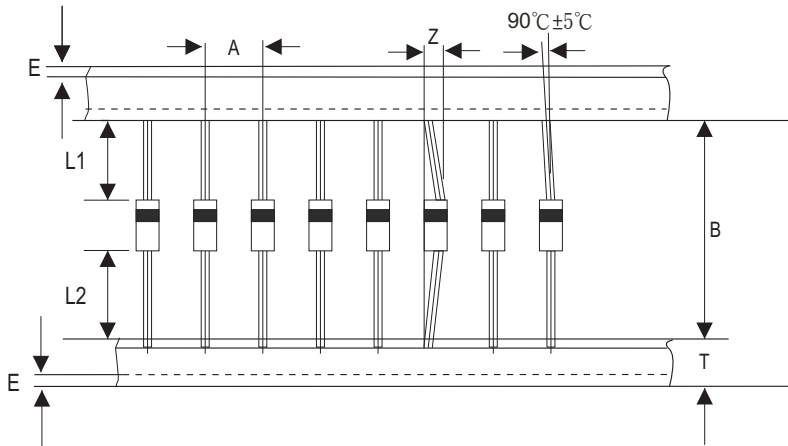


Fig.6 Test Circuit of Reverse Recovery Time Characteristics

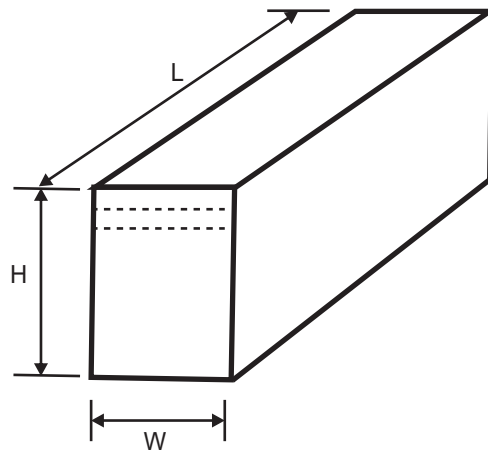


Ammo Box Packaging Specification For Axial- Lead Rectifiers



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.0±0.5	52.4±1.5	1.2	6.0±0.4	0.8(max)	1.0(max)
	(inch)	0.197±0.020	2.063±0.059	0.048	0.236±0.016	0.032(max)	0.040(max)

DO-41	SYMBOL	Box Length	Box Width	Box Height
	(mm)	245.0 ± 5.0	75.0 ± 5.0	90.0 ± 5.0
	(inch)	9.646 ± 0.197	2.953 ± 0.197	3.543 ± 0.197



Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
DO-41	2,500	45,000