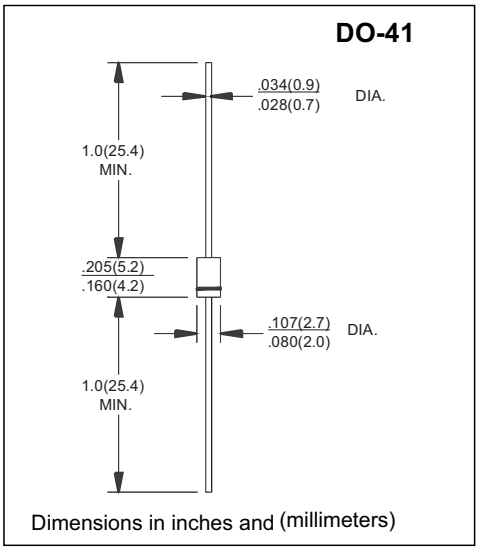
UF4001G - UF4007G

Voltage Range - 50 to 1000 V
Forward Current - 1 Ampere

GLASS PASSIVATED ULTRA FAST RECTIFIER

FEATURES

- Glass passivated Chip.
- Fast switching for high efficency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/ 10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension



MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012ounce, 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		SYMBOLS	UF 4001G	UF 4002G	UF 4003G	UF 4004G	UF 4005G	UF 4006G	UF 4007G	UNITS
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at T_A= 55℃		$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)		I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage @ 1.0A		V_F	1.0				1.7			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A = 25℃	I_R	10							µA
	T_A = 125℃		50							
Maximum Reverse Recovery Time T_J= 25℃(NOTE 1)		trr	50				75			ns
Typical Thermal Resistance (NOTE 2)		C_J	15							PF
Typical Thermal Resistance(NOTE 3)		$R_{\theta JA}$	60							℃/W
Operating Junction Temperature Range		T_J ,T_{STG}	(-55 to +150)							℃

Notes:
1 Test Condition:IF=0.5A,IR=1.0A,IRR=0.25A
2. Measured at 1.0 MHz and applied reverse of 4.0 volts.
3 Thermal resistance from junction to ambient with .375”(9.5mm)lead length, P.C.B. mounted. .

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RATING AND CHARACTERISTIC CURVES UF4001G - UF4007G

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

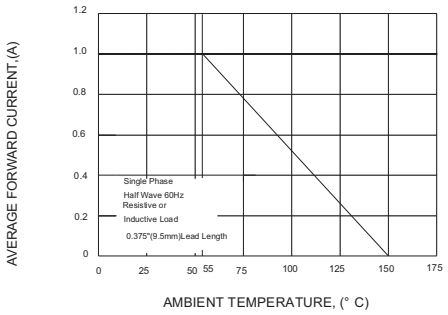


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

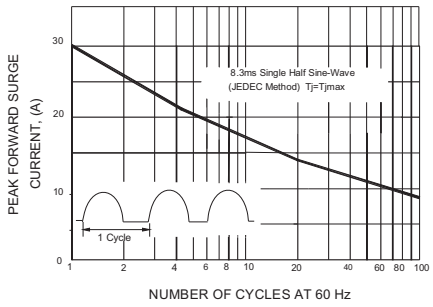


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

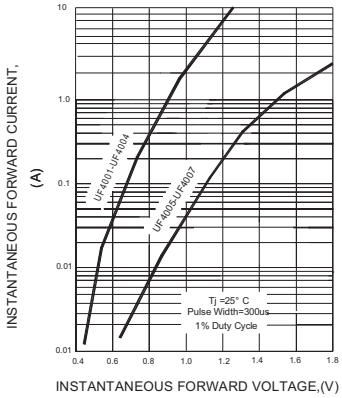


FIG.4-TYPICAL REVERSE CHARACTERISTICS

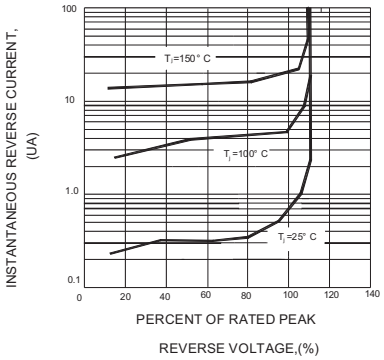


FIG.5-TYPICAL JUNCTION CAPACITANCE

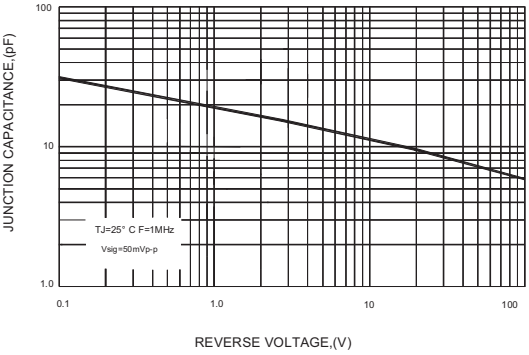
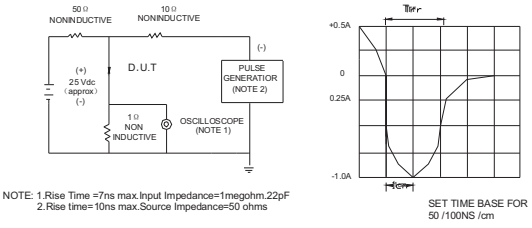


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.

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