



ULTRA FAST RECTIFIER

UF4001 THRU UF4007

VOLTAGE RANGE
CURRENT

50 to 1000 Volts
1.0Ampere

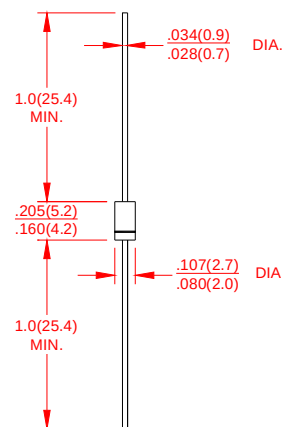
DO-41

FEATURES

- Low coat construction
- Fast switching for high efficiency.
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/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



Dimensions in inches and (millimeters)

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%

		SYMBOLS	UF 4001	UF 4002	UF 4003	UF 4004	UF 4005	UF 4006	UF 4007	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	850	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 °C		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 °C	I _R	10							μA
	T _A = 125 °C		50							
Maximum Reverse Recovery Time T _J = 25 °C(NOTE 1)		trr	50				75			ns
Typical Thermal Resistance (NOTE 2)		C _J	15							PF
Typical Thermal Resistance(NOTE 3)		R _{θJA}	60							°C/W
Operating Junction Temperature Range		T _J , T _{STG}	(-55 to +150)							°C

Notes:

- 1 Test Condition: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $IRR = 0.25\text{A}$
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. .

RATING AND CHARACTERISTIC CURVES UF4001 THRU UF4007

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

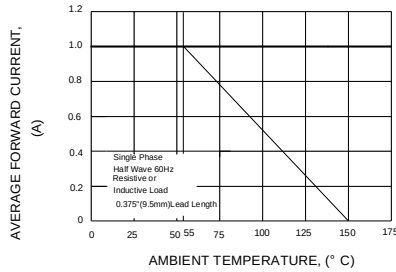


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

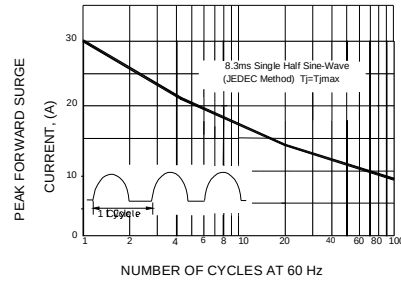


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

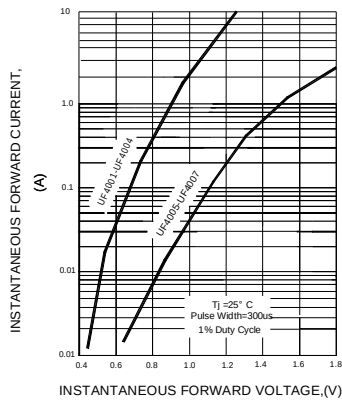


FIG.4-TYPICAL REVERSE CHARACTERISTICS

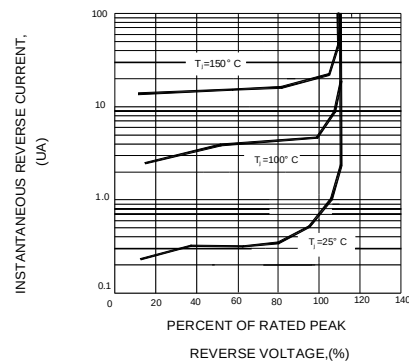


FIG.5-TYPICAL JUNCTION CAPACITANCE

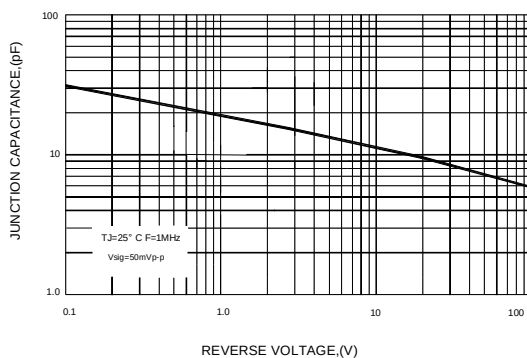


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

