



UF4001THRU UF4007 GAIATECH

ULTRA FAST RECTIFIER

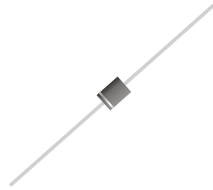
Reverse Voltage: 50 to 1000 Volts
Forward Current:1.0Ampere

FEATURES

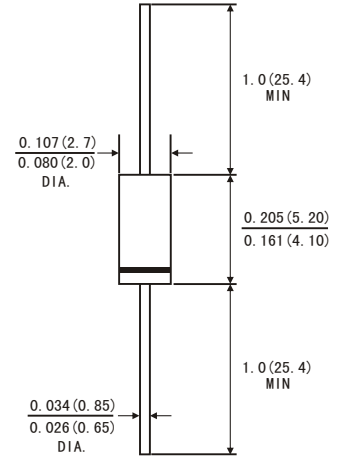
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability, High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching, Low leakage
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- **Case:** JEDED DO-41 molded plastic body
- **Epoxy:** UL94V-0 rate flame retardant
- **Lead:** Plated axial leads, solderable per MIL-STD-750,method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any
- **Weight:** 0.012ounce, 0.33 gram



DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 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	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	Units
Maximum Recurrent 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°C		I _(AV)	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I _{FSM}	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A		V _F	1.0				1.7			Volts
Maximum DC Reverse Current at rated DC blocking voltage	T _A =25 °C	I _R	5.0							μA
	T _A =100 °C		100							
Maximum reverse recovery time(Note1)		T _{rr}	50				75			ns
Typical junction capacitance(Note2)		C _J	15				12			pF
Operating junction and storage temperature range		T _J T _{STG}	-65 to +150							°C

Note: 1. Test conditions: I_F=0.5A,I_R=1.0A,I_{RR}=0.25A.

2. Measured at 1MHz and applied reverse voltage of 4.0 Volts.



GAIA TECH

RATINGS AND CHARACTERISTIC CURVES UF4001 THRU UF4007

FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

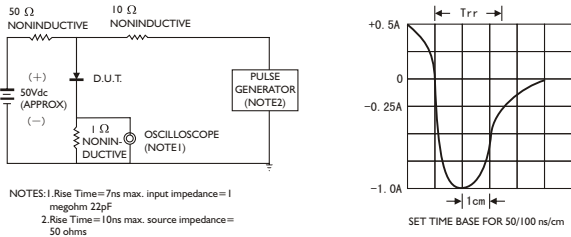


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

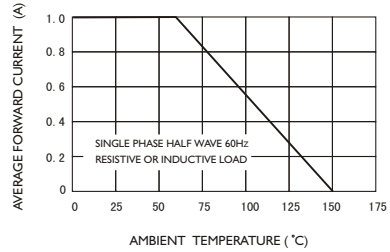


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

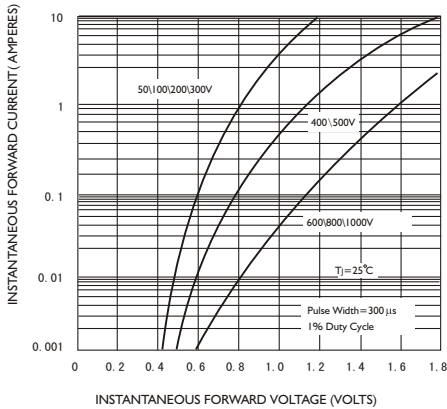


FIG.4-TYPICAL REVERSE CHARACTERISTICS

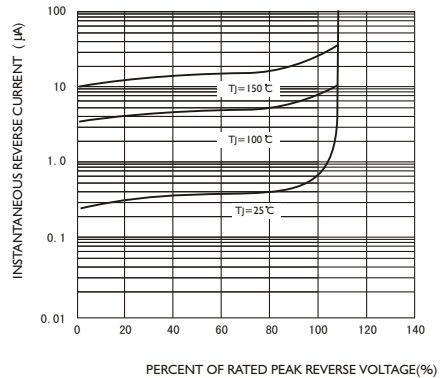


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

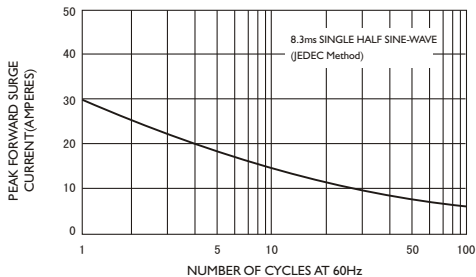


FIG.6-TYPICAL JUNCTION CAPACITANCE

