

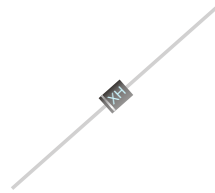


### FEATURES

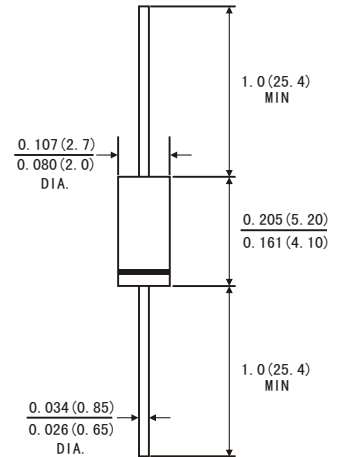
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drop
- High current capability, High reliability
- Low power loss, high efficiency
- High surge current capability
- High speed switching, Low leakage
- High temperature soldering guaranteed: 260 °C/10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

### MECHANICAL DATA

- Case: JEDEC 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 <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm)lead length @ T <sub>A</sub> =55°C	I(AV)	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	30.0							Amps
Maximum Instantaneous Forward Voltage at 1.0 A	V <sub>F</sub>	1.0				1.7			Volts
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	5.0							μA
	T <sub>A</sub> =100°C	100							
Maximum reverse recovery time(Note1)	T <sub>rr</sub>	50				75			ns
Typical junction capacitance(Note2)	C <sub>J</sub>	15				12			pF
Operating junction and storage temperature range	T <sub>J</sub> T <sub>STG</sub>	-65 to +150							°C

Note: 1. Test conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A.

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



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

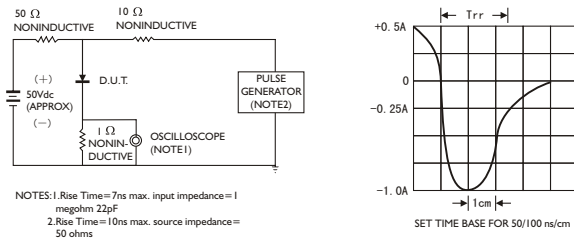


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

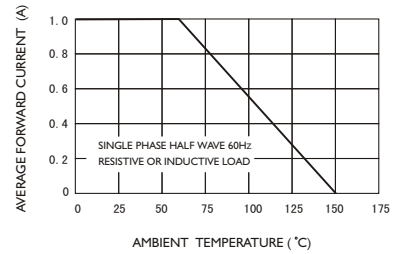


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

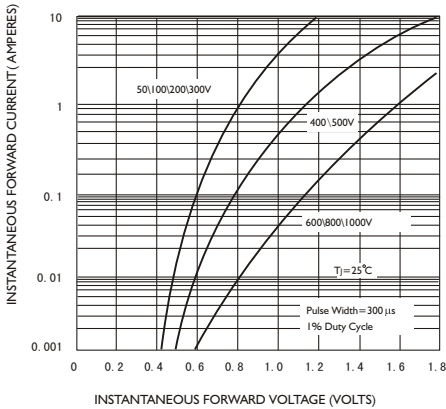


FIG.4-TYPICAL REVERSE CHARACTERISTICS

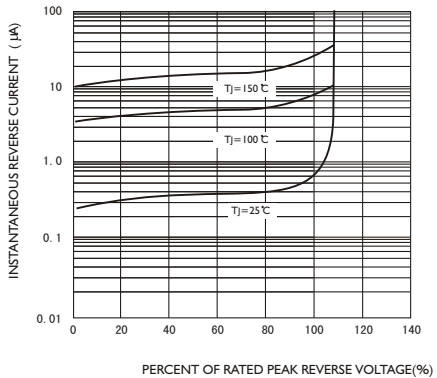


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

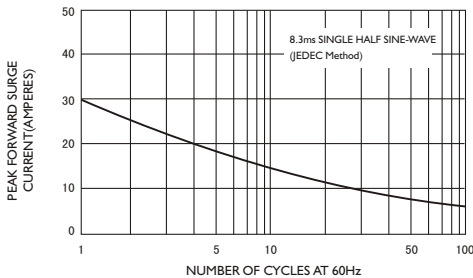


FIG.6-TYPICAL JUNCTION CAPACITANCE

