

# UF5401 THRU UF5408



HIGH EFFICIENCY RECTIFIER  
Reverse Voltage: 50 to 1000 Volts  
Forward Current: 3.0 Amperes

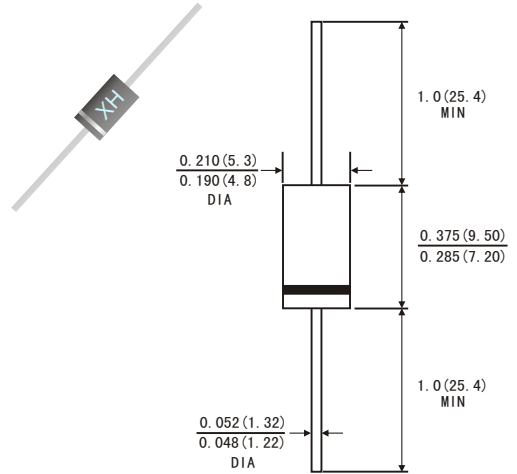
## FEATURES

- 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-201AD 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: 0.042ounce, 1.19 grams

## DO-201AD



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	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Units
Maximum Recurrent peak reverse voltage	V <sub>RRM</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Rectified Current 0.375"(9.5mm)lead length at T <sub>A</sub> =55°C	I <sub>(AV)</sub>	3.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150.0								Amps
Maximum Instantaneous Forward Voltage at 3.0 A	V <sub>F</sub>	1.0		1.3		1.7			Volts	
Maximum DC Reverse Current at rated DC blocking voltage	T <sub>A</sub> =25°C	10.0								μA
	T <sub>A</sub> =100°C	150								
Maximum reverse recovery time(Note1)	T <sub>rr</sub>	50					75			ns
Typical junction capacitance(Note2)	C <sub>J</sub>	70					50			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

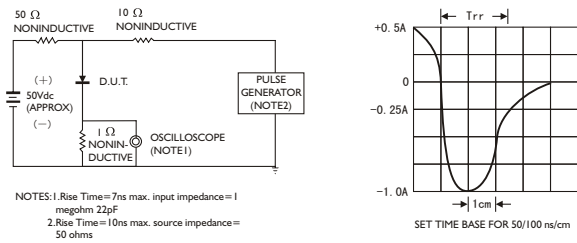


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

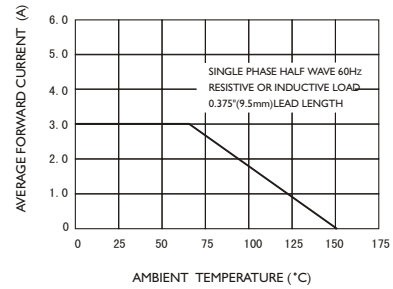


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

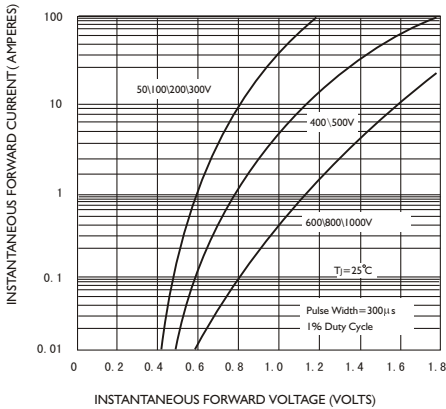


FIG.4-TYPICAL REVERSE CHARACTERISTICS

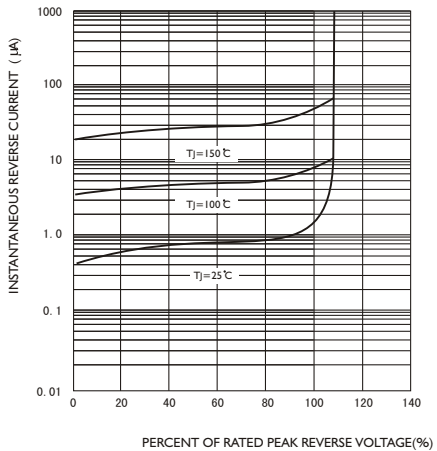


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

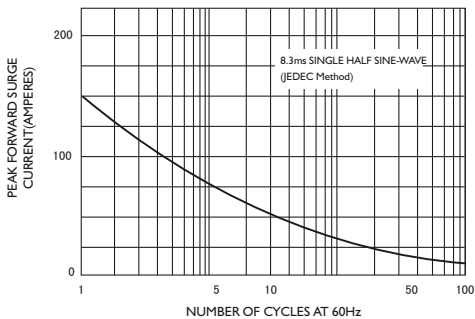


FIG.6-TYPICAL JUNCTION CAPACITANCE

