

# UF5405 THRU UF5408

**ULTRAFAST EFFICIENT  
GLASS PASSIVATED RECTIFIER**  
VOLTAGE : 500 TO 1000V      CURRENT : 3.0A

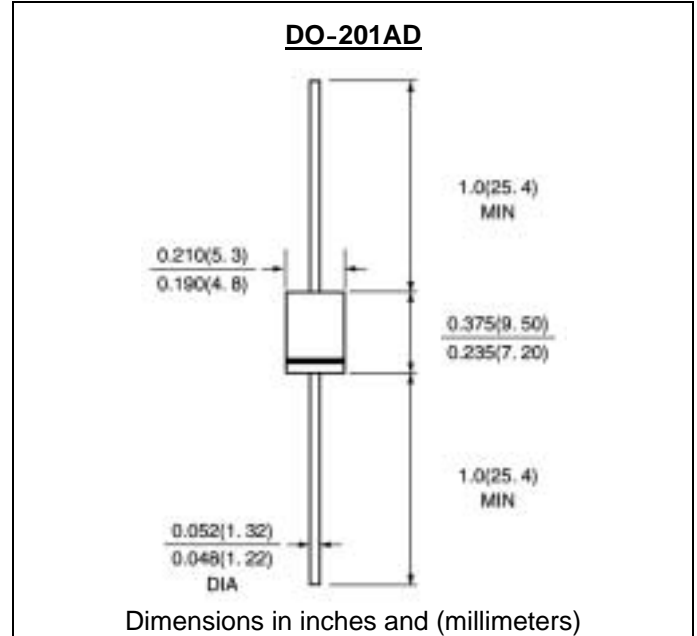


## FEATURE

Low power loss  
High surge capability  
Ultra-fast recovery time for high efficiency  
High temperature soldering guaranteed  
250 /10sec/0.375 lead length at 5 lbs tension

## MECHANICAL DATA

Terminal : Plated axial leads solderable per MIL-STD 202E, method 208C  
Case : Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity : color band denotes cathode  
Mounting position : any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half -wave, 60HZ, resistive or inductive load rating at 25 °C, unless otherwise stated)

	SYMBOL	UF 5405	UF 5406	UF 5407	UF 5408	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	500	600	800	1000	V
Maximum RMS Voltage	V <sub>rms</sub>	350	420	560	700	V
Maximum DC blocking Voltage	V <sub>dc</sub>	500	600	600	1000	V
Maximum Average Forward Rectified Current 3/8" lead length at T <sub>a</sub> =55°C	I <sub>f(av)</sub>	3.0				A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	150.0				A
Maximum Forward Voltage at Forward current 3.0A Peak	V <sub>f</sub>	1.7				V
Maximum DC Reverse Current T <sub>a</sub> =25°C at rated DC blocking voltage T <sub>a</sub> =125°C	I <sub>r</sub>	10.0 100.0				μA μA
Maximum Reverse Recovery Time (Note 1)	T <sub>rr</sub>	75				nS
Typical Junction Capacitance (Note 2)	C <sub>j</sub>	45.0				pF
Typical Thermal Resistance (Note 3)	R(ja)	20.0				/W
Storage and Operating Junction Temperature	T <sub>stg,Tj</sub>	-55 to +150				

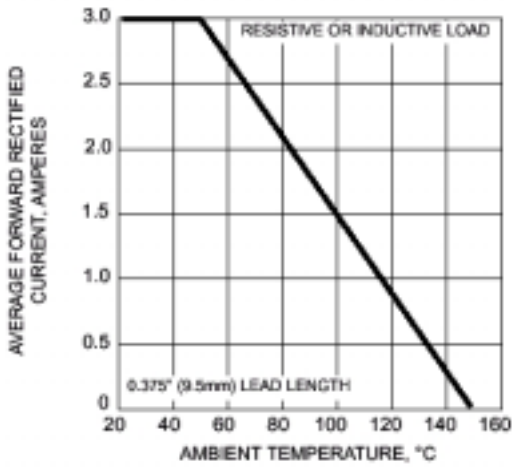
### Note :

- Reverse Recovery Condition I<sub>f</sub> =0.5A, I<sub>r</sub> =1.0A, I<sub>rr</sub> =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0V<sub>dc</sub>
- Thermal Resistance from Junction to Ambient at 3/8" lead length, P.C. Board Mounted

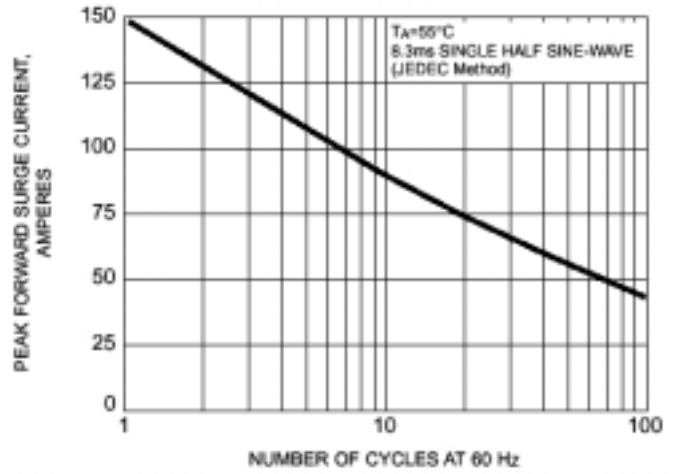
# RATINGS AND CHARACTERISTIC CURVES UF5405 THRU UF5408

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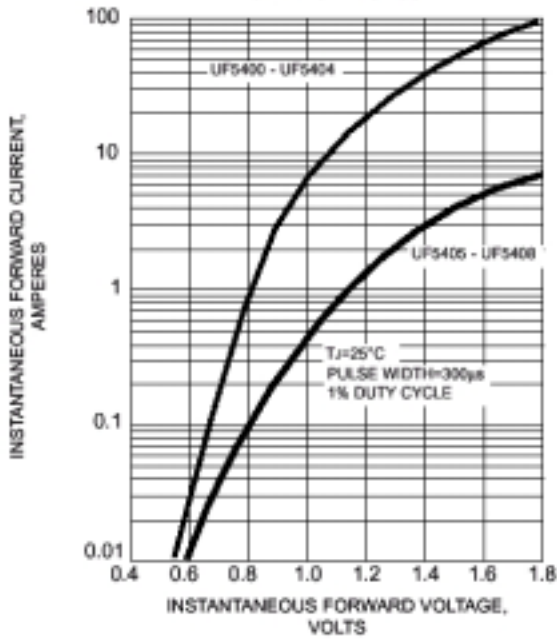
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



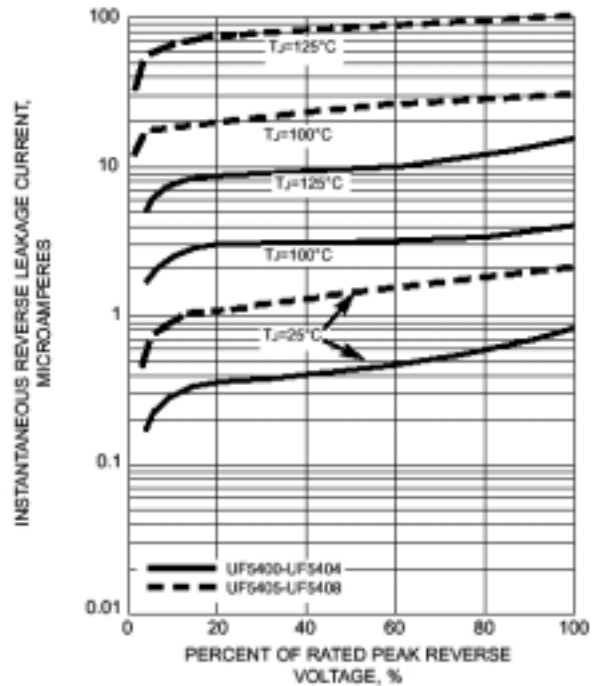
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG. 3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

