

UF3001 THRU UF3007



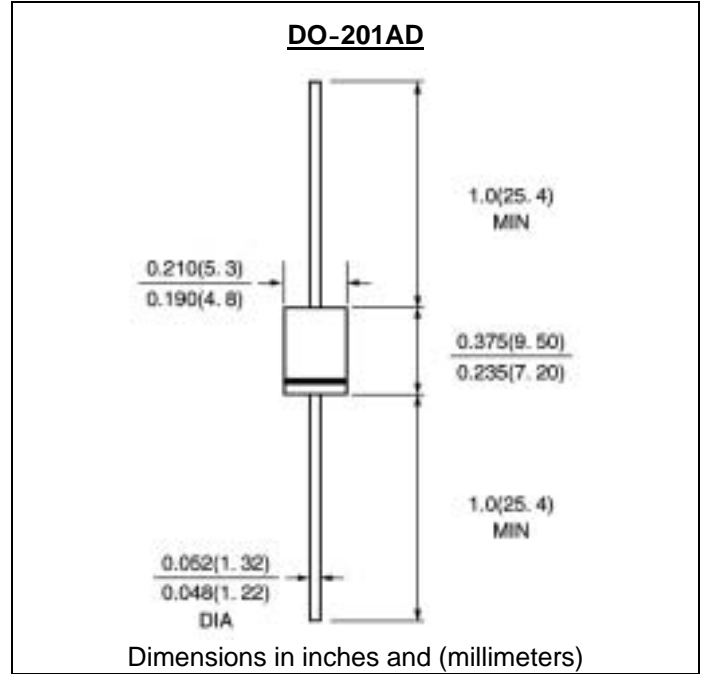
**ULTRAFAST EFFICIENT
PLASTIC SILICON RECTIFIER**
VOLTAGE : 50 TO 1000V CURRENT : 3.0A

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 3001	UF 3002	UF 3003	UF 3004	UF 3005	UF 3006	UF 3007	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{rms}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V _{dc}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current 3/8 lead length at Ta =55	I _{f(av)}	3.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	150.0							A
Maximum Forward Voltage at Forward current 1A Peak	V _f	1.0		1.3		1.7		V	
Maximum DC Reverse Current Ta =25 at rated DC blocking voltage Ta =125	I _r	10.0			100.0			μ A μ A	
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50			75			nS	
Typical Junction Capacitance (Note 2)	C _j	75			50			pF	
Typical Thermal Resistance (Note 3)	R(ja)	20.0							/W
Storage and Operating Junction Temperature	T _{stg,Tj}	-55 to +150							

Note :

- Reverse Recovery Condition I_f =0.5A, I_r =1.0A, I_{rr} =0.25A
- Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
- Thermal Resistance from Junction to Ambient at 3/8 lead length, P.C. Board Mounted

RATINGS AND CHARACTERISTIC CURVES UF3001 THRU UF3007

FIG. 1 - FORWARD CURRENT DERATING CURVE

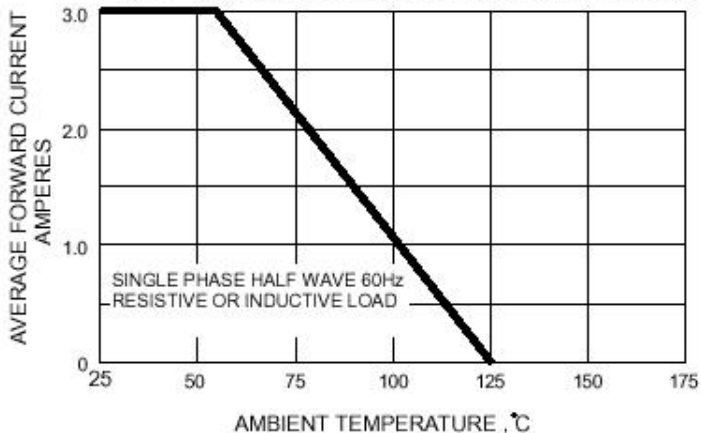


FIG. 2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

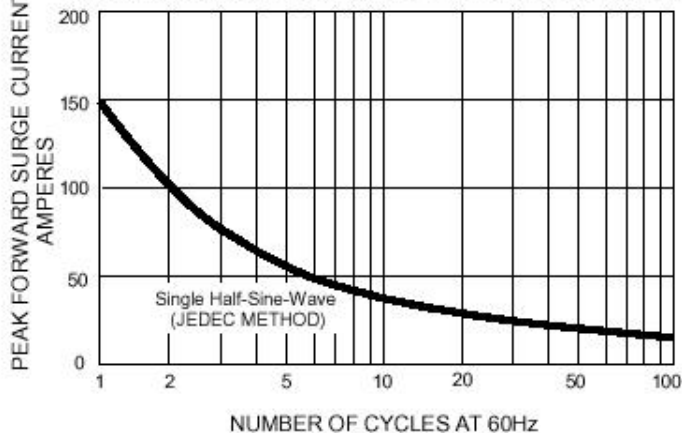


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

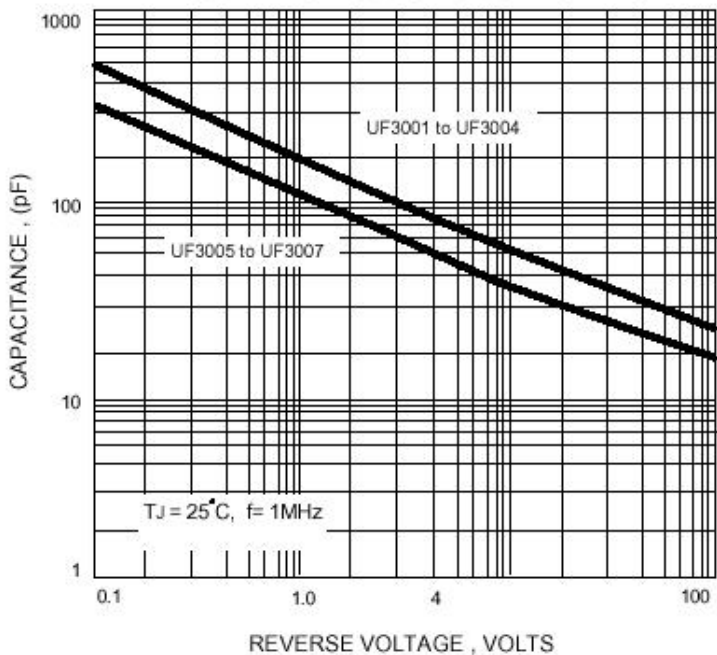


FIG. 4 - TYPICAL FORWARD CHARACTERISTICS

