



# UF300 ~ UF3010

## ULTRAFAST RECOVERY RECTIFIERS

**VOLTAGE** 50 to 1000 Volts **CURRENT** 3.0 Amperes

**DO-201AD**

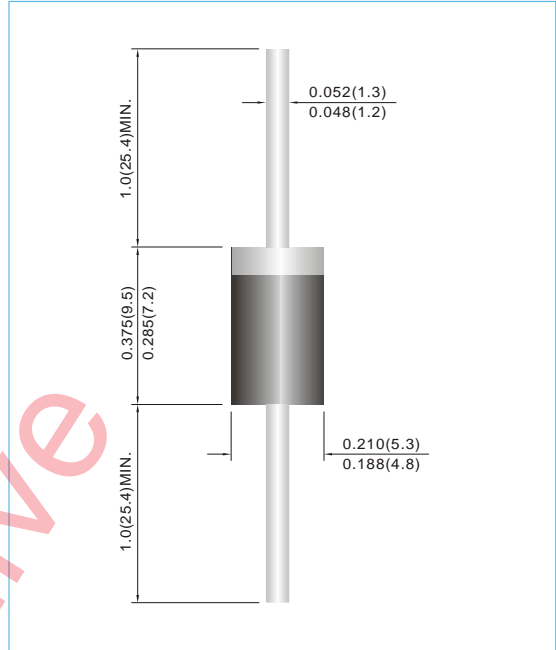
Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Exceeds environmental standards of MIL-S-19500/228.
- Ultra Fast switching for high efficiency.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded plastic, DO-201AD
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.0395 ounce, 1.122 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

PARAMETER	SYMBOL	UF300	UF301	UF302	UF304	UF306	UF308	UF3010	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 Current .375"(9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	150							A
Maximum Forward Voltage at 3.0A	$V_F$	1.0		1.3		1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$					10.0 750		$\mu\text{A}$	
Typical Junction Capacitance (Note 1)	$C_J$	75				50			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$					20 12		$^\circ\text{C} / \text{W}$	
Maximum Reverse Recovery Time (Note 3)	$t_{rr}$	50				75			ns
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150							$^\circ\text{C}$

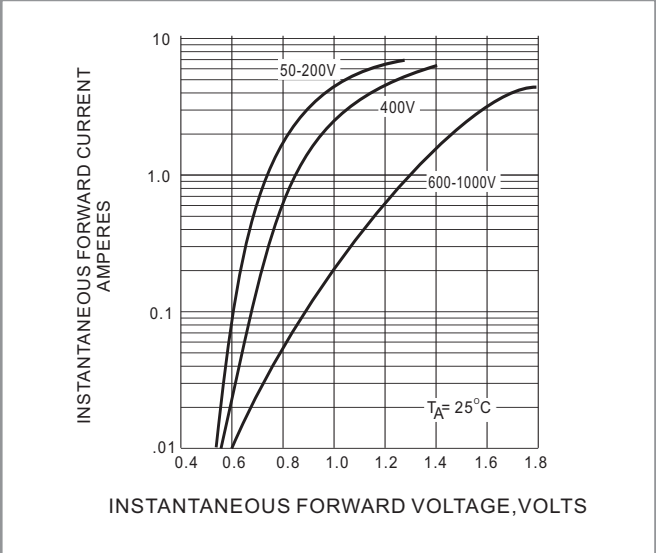
### NOTES:

1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.
2. Thermal Resistance from Junction to Ambient and from Junction to lead length 0.375"(9.5mm) P.C.B. mounted.
3. Reverse Recovery Time  $I_F=.5A$ ,  $I_R=1A$ ,  $I_{rr}=.25A$

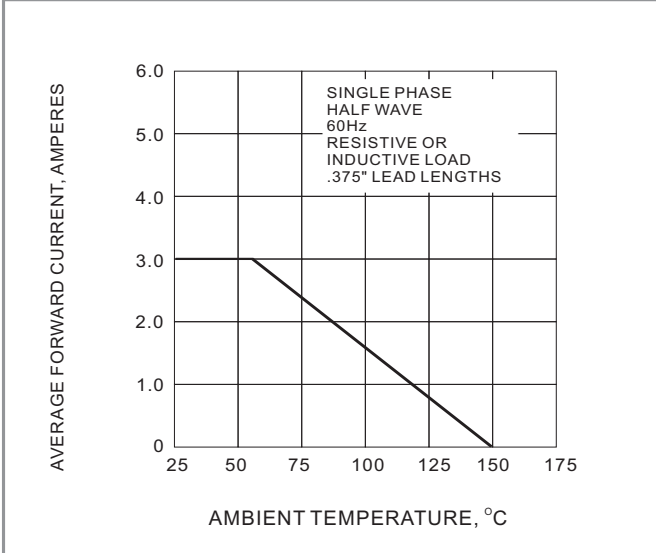


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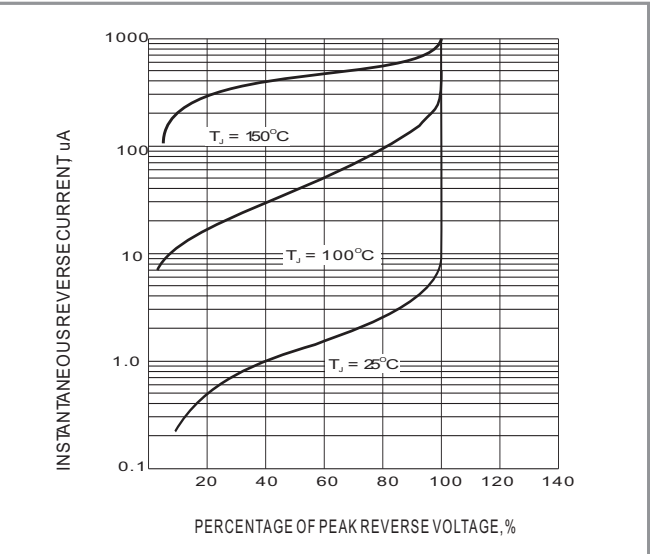
## RATING AND CHARACTERISTIC CURVES



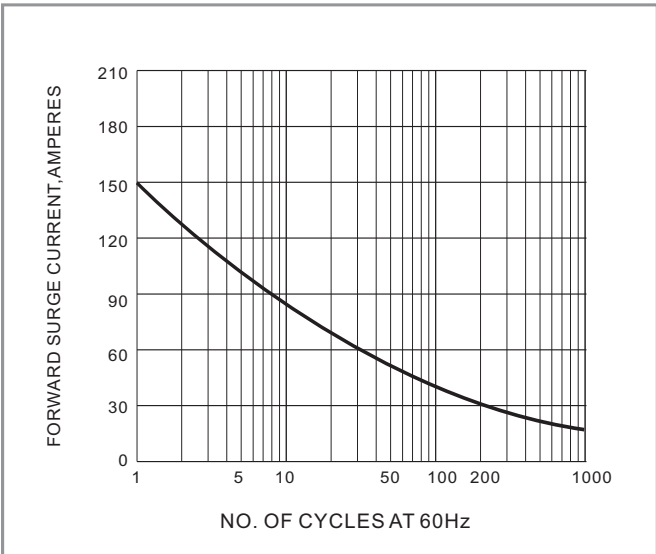
**Fig. 1 FORWARD CHARACTERISTICS**



**Fig. 2 FORWARD CURRENT DERATING CURVE**



**Fig. 3 TYPICAL REVERSE CHARACTERISTIC**



**Fig. 4 PEAK FORWARD SURGE CURRENT**