SAMYANG ELECTRONICS

UF2001 --- UF2007

ULTRA FAST RECTIFIER

VOLTAGE RANGE: 50 --- 1000 V
CURRENT: 2.0 A

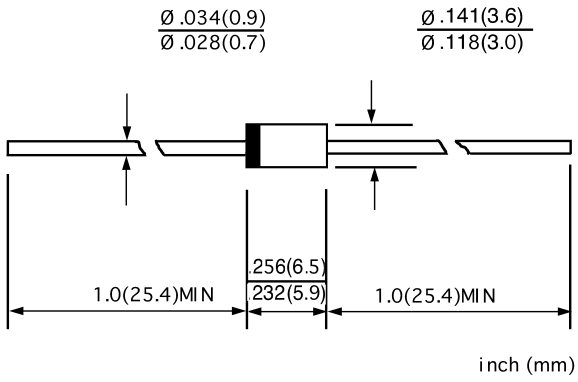
FEATURES

- ◇ Low cost
- ◇ Diffusde junction
- ◇ Ultra fast switching for high efficiency
- ◇ Low reverse leakage current
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- ◇ Case:JEDEC DO--15,molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.015 ounces,0.4 grams
- ◇ Mounting position: Any

DO - 15



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		UF2001	UF2002	UF2003	UF2004	UF2005	UF2006	UF2007	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 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	60.0							A
Maximum instantaneous forward voltage @ 2.0A	V_F	1.0			1.3	1.70			V
Maximum reverse current @T_A=25℃	I_R	5.0							μA
at rated DC blocking voltage @T_A=100℃		100.0							
Maximum reverse recovery time (Note1)	t_{rr}	50				75			ns
Typical junction capacitance (Note2)	C_J	50				30			pF
Typical thermal resistance (Note3)	R_{JA}	25							℃
Operating junction temperature range	T_J	- 55 ----- + 125							℃
Storage temperature range	T_{STG}	- 55 ----- + 150							℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance junction to ambient

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FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE

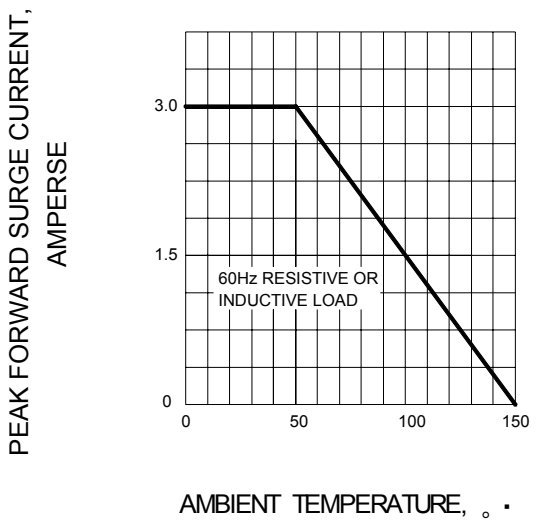

FIG.2 – MAXIMUM FORWARD SURGE CURRENT

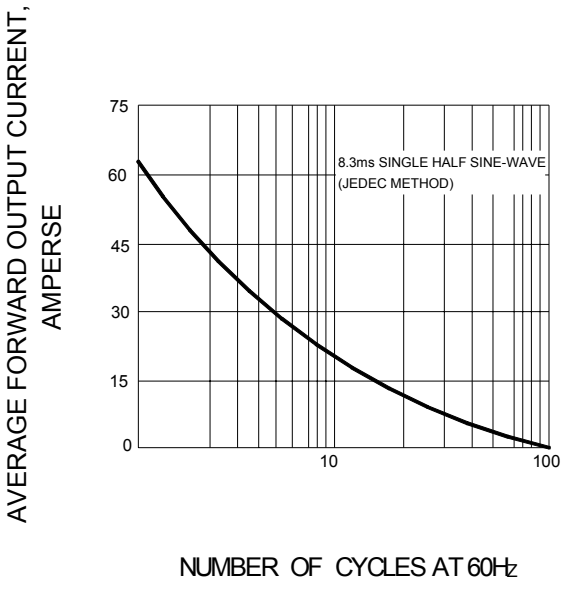

FIG.3 – TYPICAL FORWARD CHARACTERISTIC

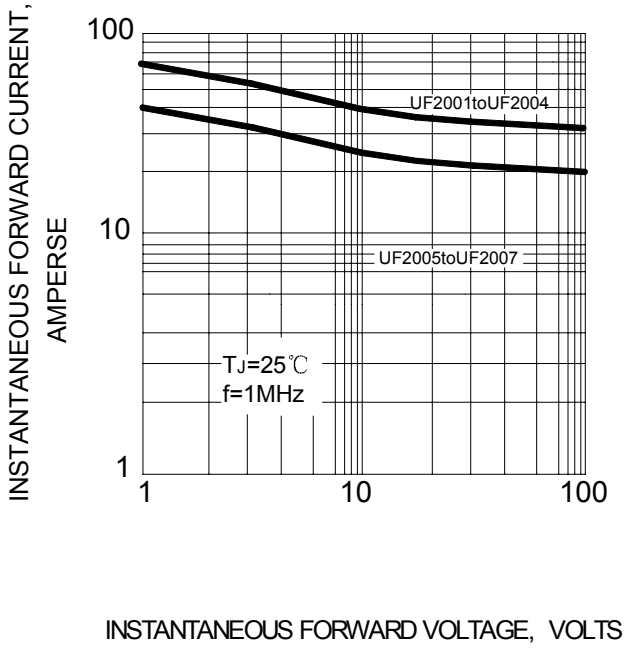

FIG.4 – TYPICAL REVERSE CHARACTERISTIC