UF4001 thru UF4008

ULTRA FAST RECTIFIERS	REVERSE VOLTAGE - **50** to **1000** Volts FORWARD CURRENT - **1.0** Amperes

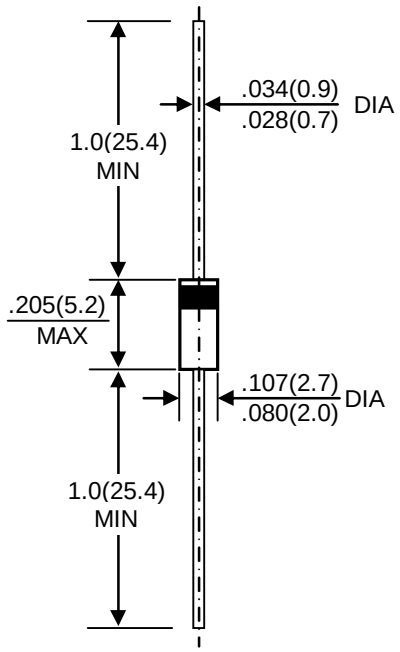
FEATURES

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

MECHANICAL DATA

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces , 0.34 grams
- Mounting position: Any

DO- 41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave ,60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	UF4001	UF4002	UF4003	UF4004	UF4005	UF4006	UF4007	UF4008	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	580	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_A=55 ℃	$I_{(AV)}$	1.0								A
Peak Forward Surage Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	30								A
Peak Forward Voltage at 1.0A DC(Note1)	V_F	1.0				1.3	1.7			V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	5.0 100								uA
Maximum Reverse Recovery Time(Note 1)	T_{RR}	50					75			nS
Tyical Junction Capacitance (Note2)	C_J	20					10			pF
Tyical Thermal Resistance (Note3)	$R_{\theta JA}$	25								℃/W
Operating Temperature Range	T_J	-50 to +125								℃
Storage Temperature Range	T_{STG}	-50 to +150								℃

NOTES: 1.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A.

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

3.Thermal resistance junction of ambient.

FIG. 1 – FORWARD CURRENT DERATING CURVE

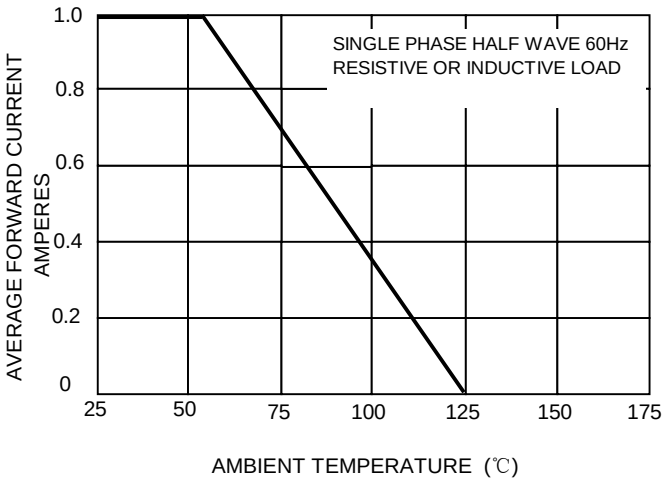


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

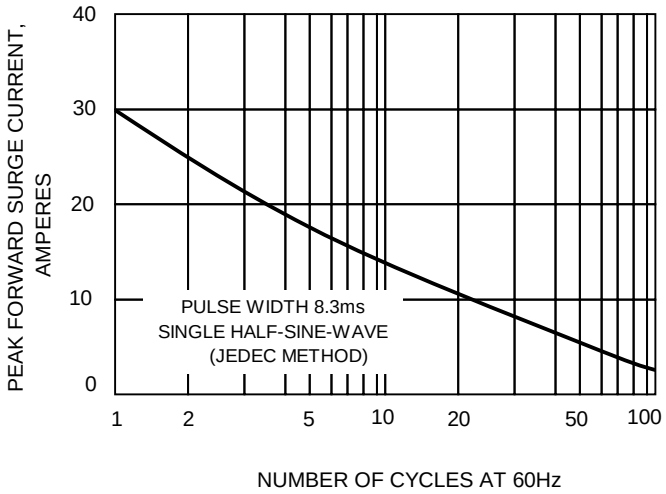


FIG.3 – TYPICAL JUNCTION CAPACITANCE

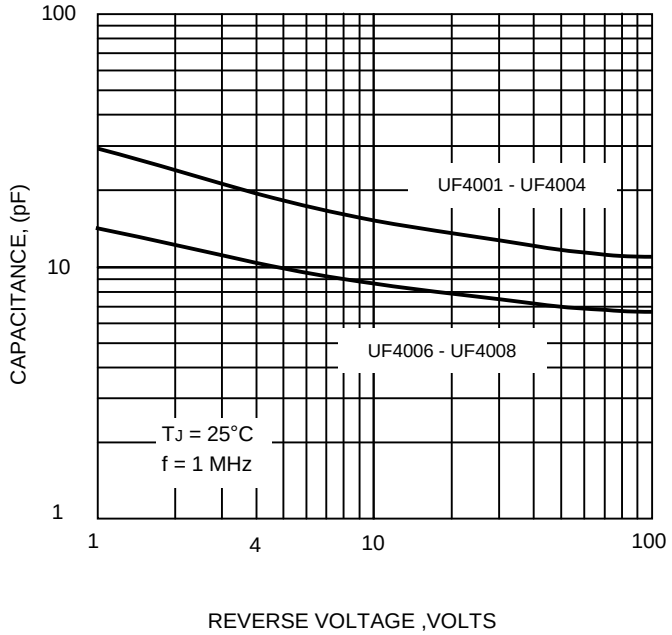
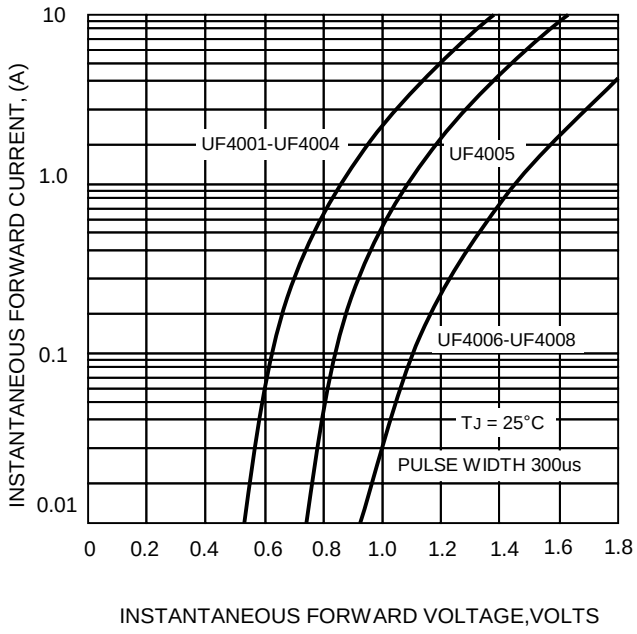



FIG.4-TYPICAL FORWARD CHARACTERISTICS