



UF100S ~ UF1010S

ULTRAFAST RECOVERY RECTIFIERS

VOLTAGE 50 to 1000 Volts **CURRENT** 1.0 Amperes

A-405

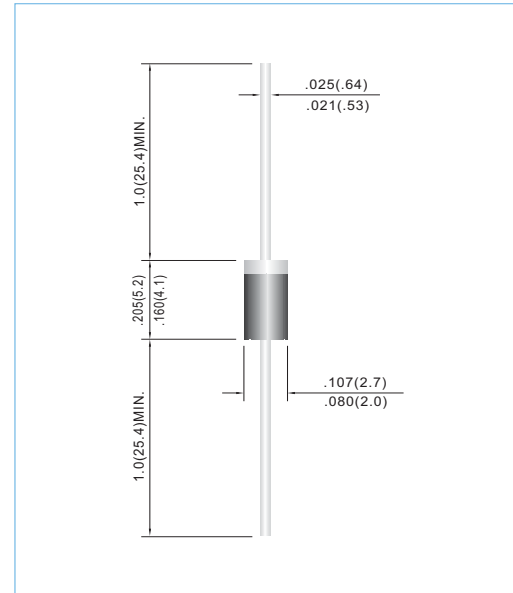
Unit: inch(mm)

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, A-405
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- Polarity: Band denotes cathode
- Mounting Position: Any
- Weight: 0.008 ounce, 0.22 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	UF100S	UF101S	UF102S	UF104S	UF106S	UF108S	UF1010S	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 $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A	
Maximum Forward Voltage at 1.0A	V_F	1.0		1.3		1.7			V	
Maximum DC Reverse Current at $T_J=25^\circ\text{C}$ Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	I_R					5.0 500			μA	
Typical Junction capacitance (Note 1)	C_J	17							pF	
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	60							$^\circ\text{C} / \text{W}$	
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 $I_F=.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=.25\text{A}$



UF100S ~ UF1010S

RATING AND CHARACTERISTIC CURVES

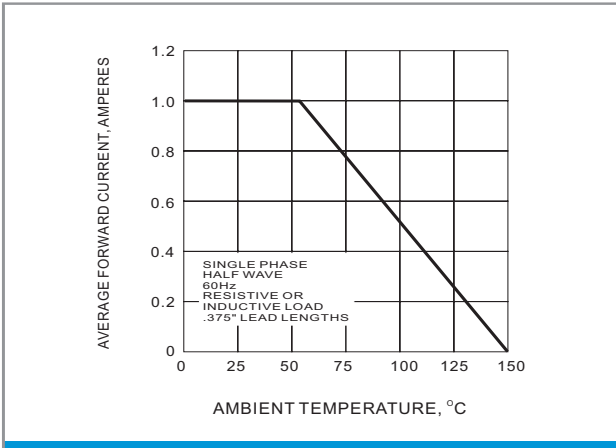


Fig.1 FORWARD CURRENT DERATING CURVE

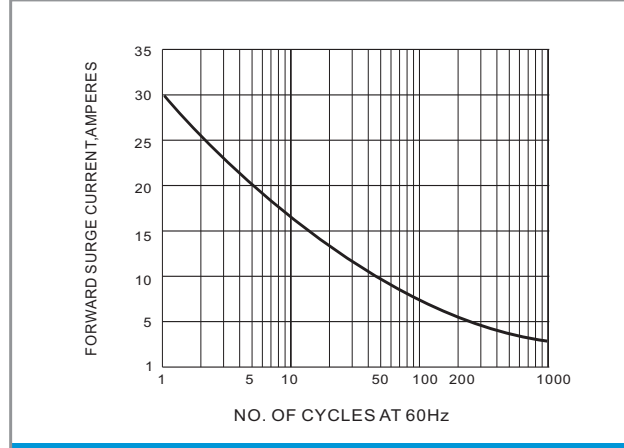


Fig.2 PEAK FORWARD SURGE CURRENT

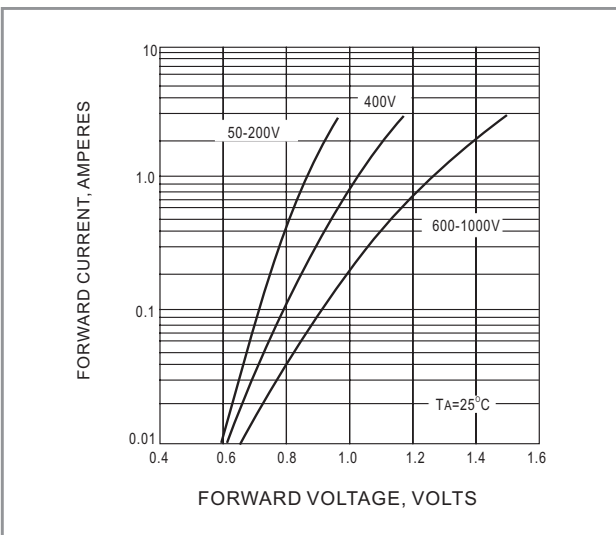


Fig.3 FORWARD CHARACTERISTICS

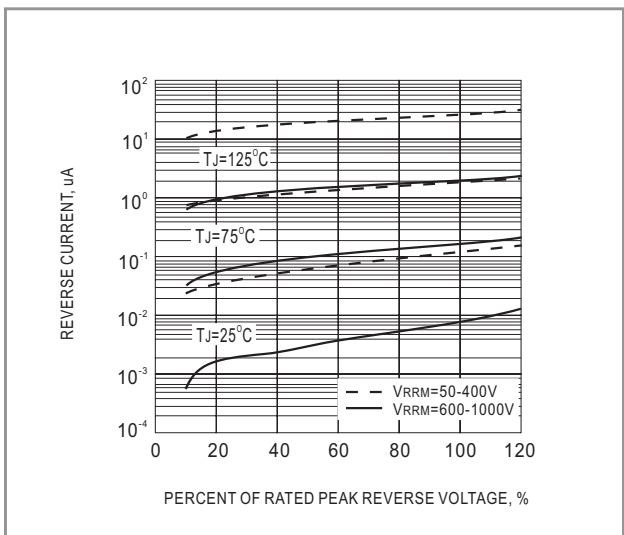


Fig.4 TYPICAL REVERSE CHARACTERISTICS

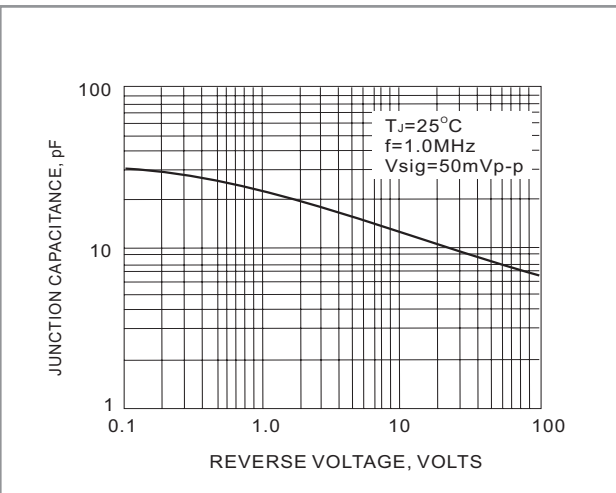


Fig.5 TYPICAL JUNCTION CAPACITANCE