

Surface Mount High Efficiency Glass Passivated Rectifier



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	: Molded plastic body
Polarity	: Colour band denotes cathode
Weight	: 0.002 ounces, 0.064 grams
Mounting position	: Any
Reverse Voltage	: 600 to 1000 Volts
Forward Current	: 1 Ampere

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	UF1J+	UF1K+	UF1M+	Unit
Max. Recurrent Peak Reverse Voltage	V_{RRM}	600	800	1000	V
Max. RMS Voltage	V_{RMS}	420	560	700	
Max. DC Blocking Voltage	V_{DC}	600	800	1000	
Max. Average Forward Rectified Current	$I_{F(AV)}$	1			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Super Imposed on Rated Load(JEDEC Method)	I_{FSM}	30			
Peak Forward Voltage at 1A DC	V_F	1.7			V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 100			μA
		@ $T_J=25^\circ C$ @ $T_J=100^\circ C$			
Maximum Reverse Recovery Time(Note1)	T_{RR}	75			nS
Typical Junction Capacitance (Note2)	C_J	10			pF
Typical Thermal Resistance (Note3)	$R_{\theta JL}$	25			$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150			$^\circ C$
Storage Temperature Range	T_{STG}				

Notes:

1. Measured with $I_F=0.5A, I_R=1A, I_{RR}=0.25A$.
2. Measured at 1MHz and applied reverse voltage of 4V DC.
3. Thermal resistance junction to lead.
4. The typical data above is for reference only

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Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

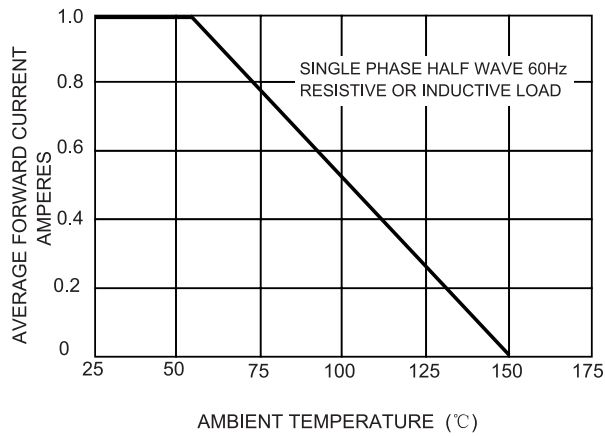


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

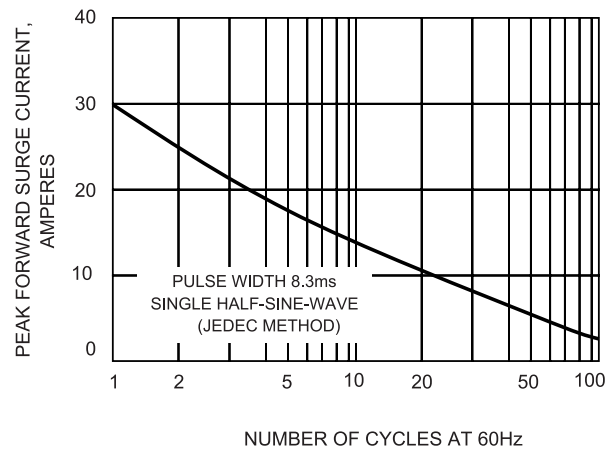


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

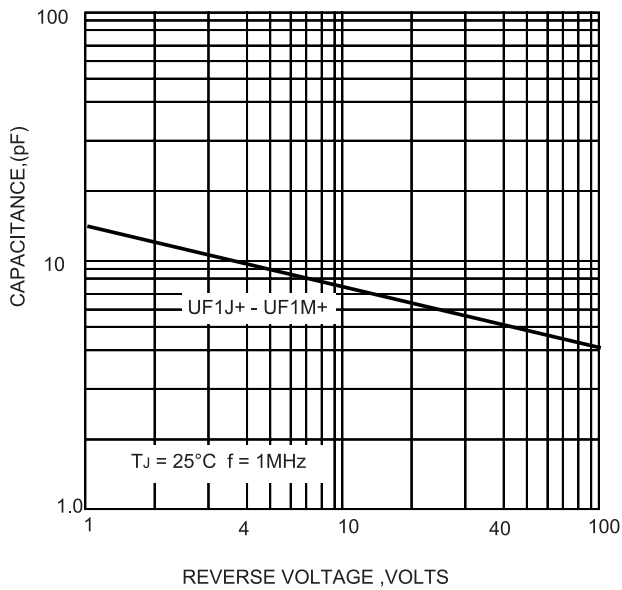
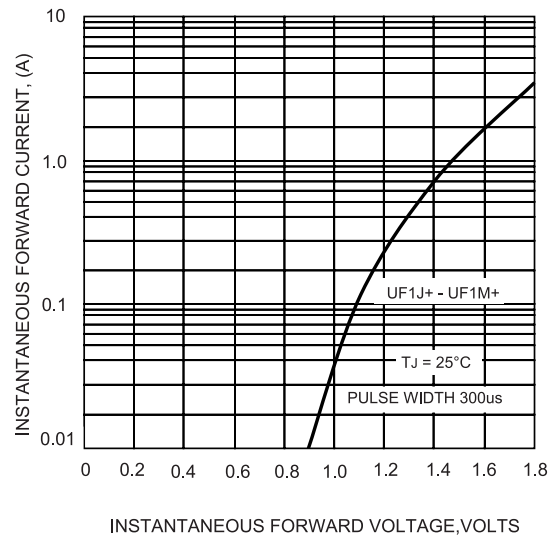


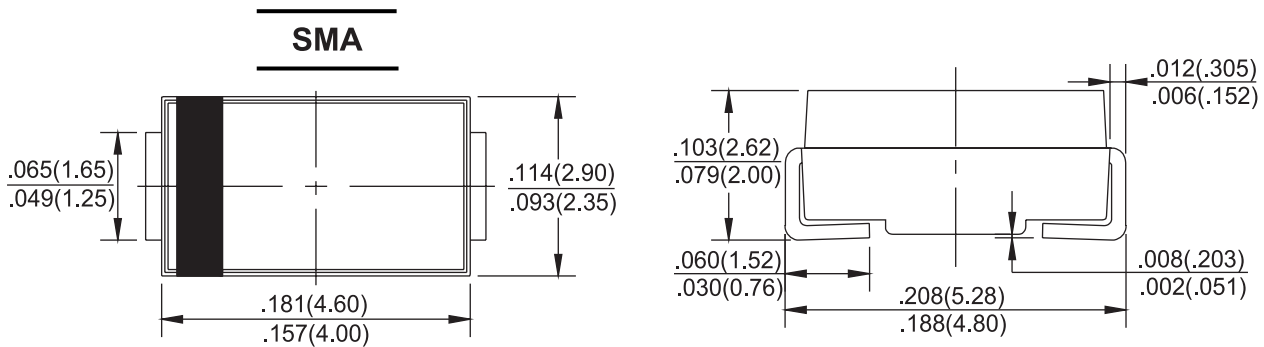
FIG. 4-TYPICAL FORWARD CHARACTERISTICS



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Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Ultra Fast Diode 1A 600V SMA	UF1J+
Ultra Fast Diode 1A 800V SMA	UF1K+
Ultra Fast Diode 1A 1,000V SMA	UF1M+

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