

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 @T _J =25°C at Rated DC Blocking Voltage @T _J =100°C	I _R	5 100			μA
Maximum Reverse Recovery Time(Note1)	T _{RR}	75			nS
Typical Junction Capacitance (Note2)	C _J	10			pF
Typical Thermal Resistance (Note3)	R _{θJL}	25			°C/W
Operating Temperature Range	T _J	-55 to +150			°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

Surface Mount High Efficiency Glass Passivated Rectifier



Ratings and Characteristic Curves

FIG. 1 – FORWARD CURRENT DERATING CURVE

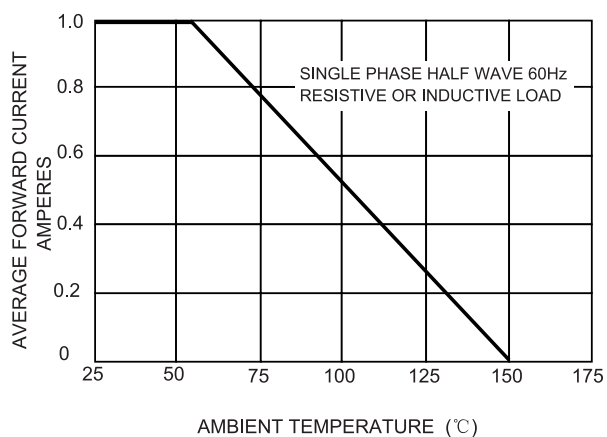


FIG. 2 – MAXIMUM NON-REPETITIVE SURGE CURRENT

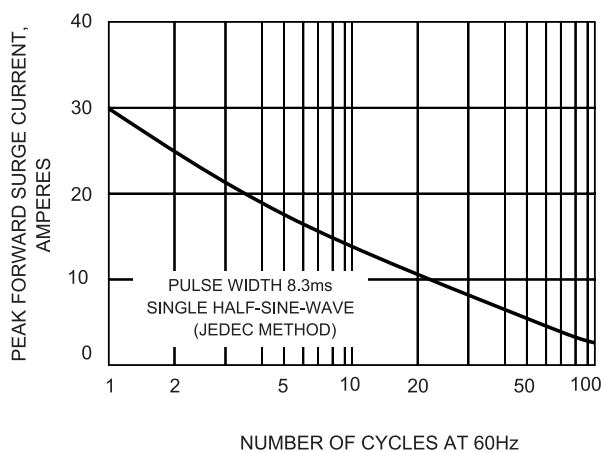


FIG. 3 – TYPICAL JUNCTION CAPACITANCE

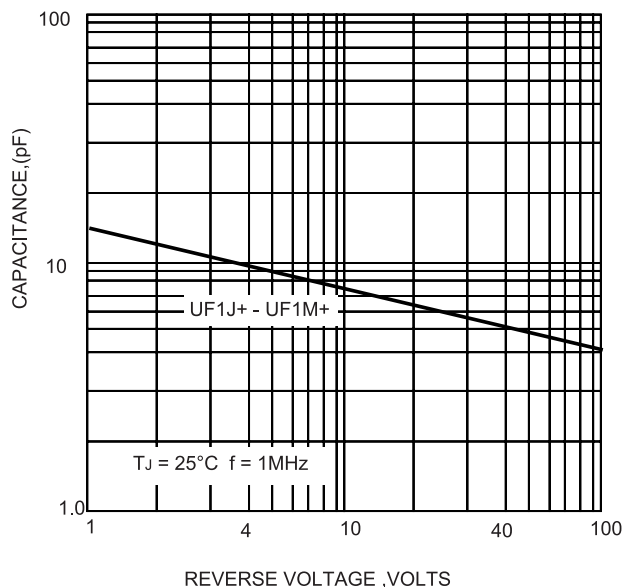
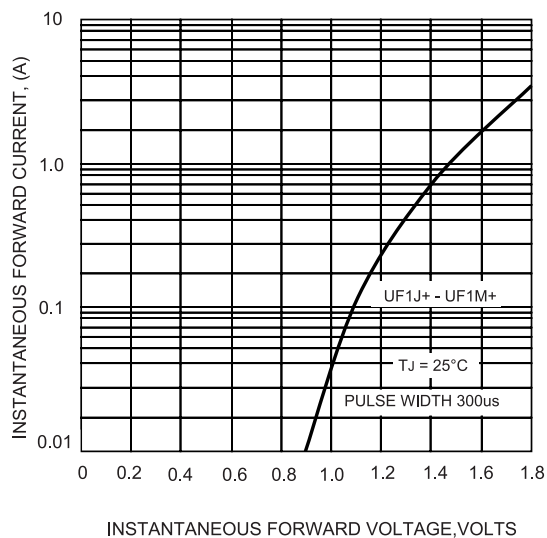


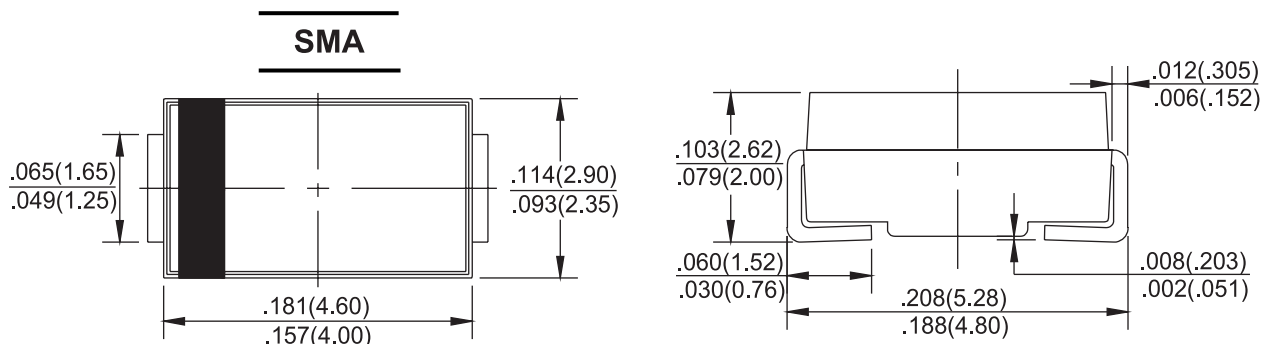
FIG.4-TYPICAL FORWARD CHARACTERISTICS



Surface Mount High Efficiency Glass Passivated Rectifier



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+

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell Limited 2016.

www.element14.com
www.farnell.com
www.newark.com

