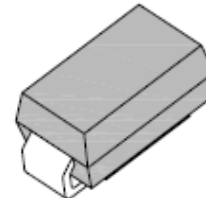


1.0A Sintered Glass Passivated Ultra Fast Rectifier

Features

- Sintered glass passivated (SGP) rectifier chip
- Glass passivated cavity-free junction
- Ideal for surface mount automotive applications
- Superfast recovery time for high efficiency
- Built-in strain relief
- Easy pick and place
- High temperature soldering guaranteed:260°C/10 seconds, at terminals
- RoHS Compliance



SMA



Mechanical Data

Case:	JEDEC DO-214AC(SMA) molded plastic over passivated chip
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Tin plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	0.002 ounces, 0.064 gram

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Maximum Ratings and Electrical Characteristics ($T_A=25^\circ\text{C}$ unless noted otherwise)

Symbol	Description	UGF1A	UGF1B	UGF1D	UGF1G	UGF1J	UGF1K	UGF1M	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	1.0							A	TL=75° C
I_{FSM}	Peak Forward Surge Current	30							A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

1.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF1A - UGF1M

Symbol	Description	UGF1A	UGF1B	UGF1D	UGF1G	UGF1J	UGF1K	UGF1M	Unit	Conditions	
V_F	Maximum Instantaneous Forward Voltage	1.0			1.25	1.7			V	I _F =1.0A	
I_R	Maximum DC Reverse Current at Rated DC Blocking Voltage	5				5				μA	TA=25° C
		30				50					TA=125° C
		50				-					TA=150° C
T_{rr}	Maximum Reverse Recovery Time	50				75				nS	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A
C_J	Typical Junction Capacitance	15								pF	V _R =4V, f=1MHz
R_{thJA}	Typical Thermal Resistance	75								°C / W	Note
R_{thJL}		25									
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +175								°C	

Note: Thermal resistance from junction to ambient and from junction to lead P.C.B mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas.

Typical Characteristics Curves

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Fig.1- Forward Current Derating Curve

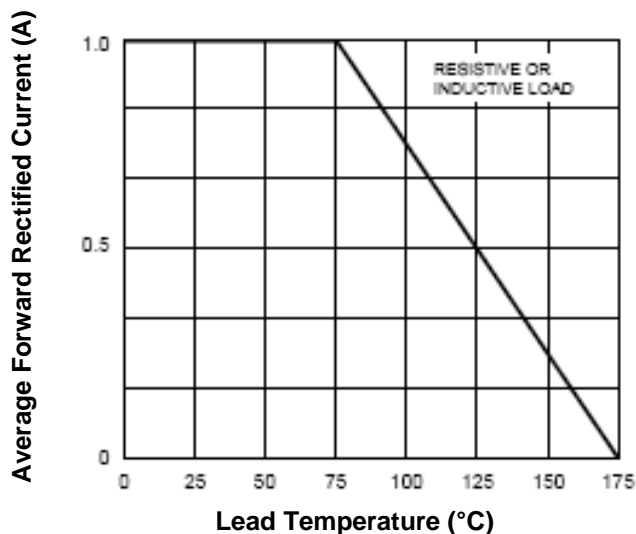
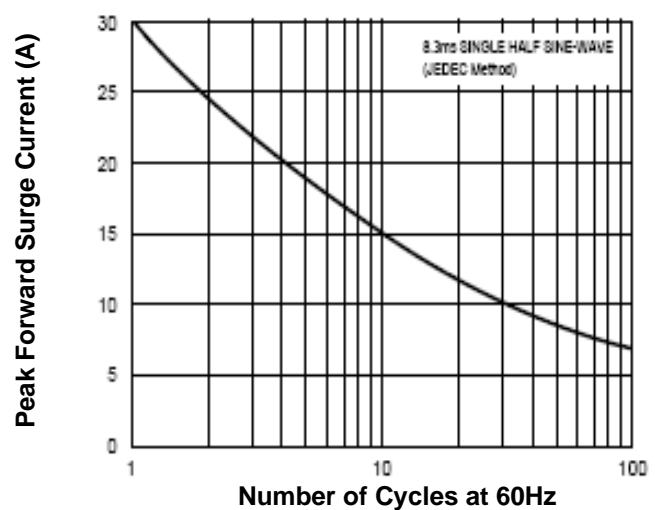


Fig.2- Max. Non-Repetitive Peak Forward Surge Current



1.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF1A - UGF1M

Fig.3- Typical Instantaneous Forward Characteristics

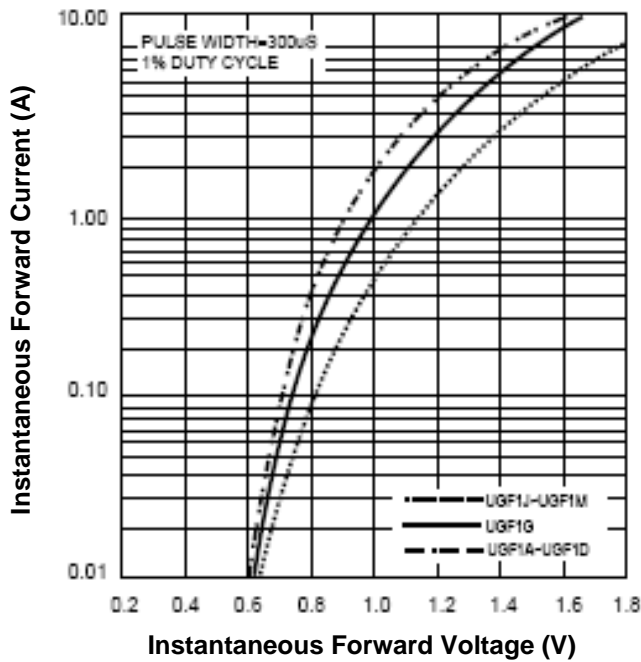


Fig.4-Typical Reverse Characteristics

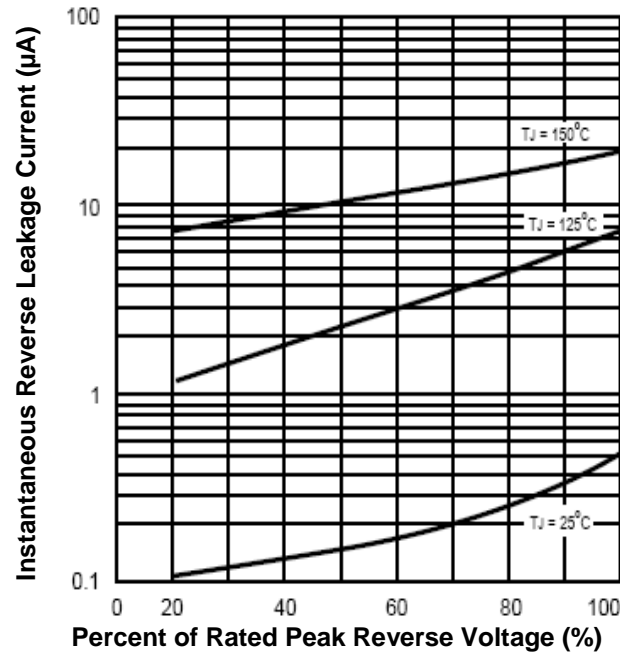
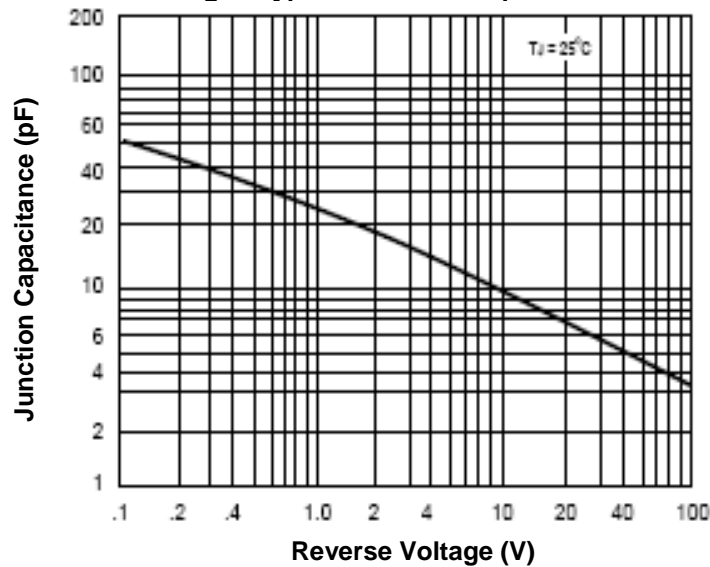


Fig.5- Typical Junction Capacitance

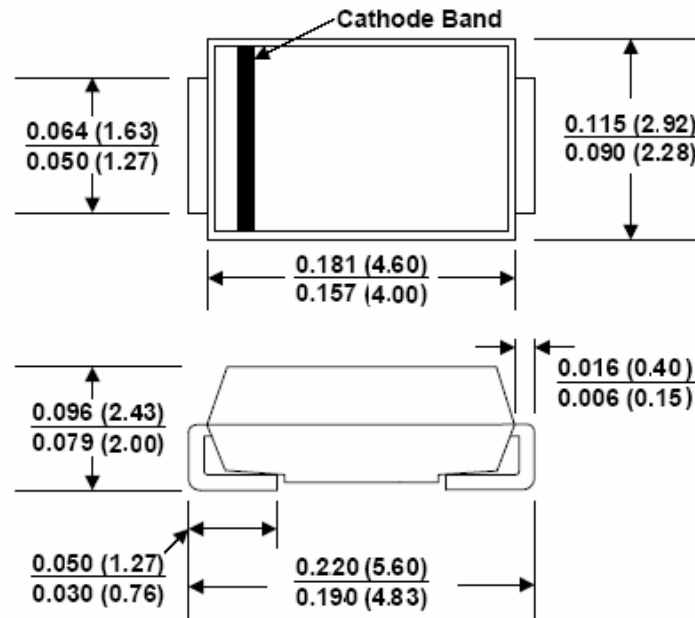


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1.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF1A - UGF1M

Dimensions in inches (mm)



SMA

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