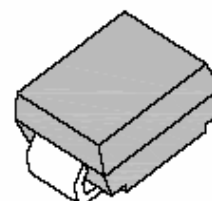


3.0A Sintered Glass Passivated Ultra Fast Rectifier

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



SMB



Mechanical Data

Case:	JEDEC DO-214AA(SMB) molded plastic over passivated chip
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Solder plated, solderable per MIL-STD-750, Method 2026
Polarity:	Color band denotes cathode end
Weight:	0.003 ounces, 0.093 gram

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

Symbol	Description	UGF3 AB	UGF3 BB	UGF3 DB	UGF3 GB	UGF3 JB	UGF3 KB	UGF3 MB	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	3.0							A	T _A =75° C
I_{FSM}	Peak Forward Surge Current	115				105			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

3.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF3AB – UGF3MB

Symbol	Description	UGF3 AB	UGF3 BB	UGF3 DB	UGF3 GB	UGF3 JB	UGF3 KB	UGF3 MB	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	T _A =25° C
		50				120				T _A =125° C
		120				-				T _A =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	75							pF	V _R =4V, f=1MHz
R _{thJA}	Typical Thermal Resistance	47							°C / W	Note
R _{thJL}		12								
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

Fig.1- Forward Current Derating Curve

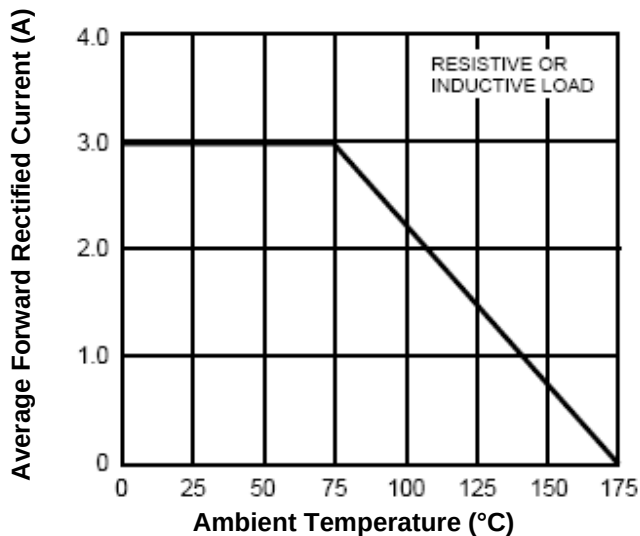
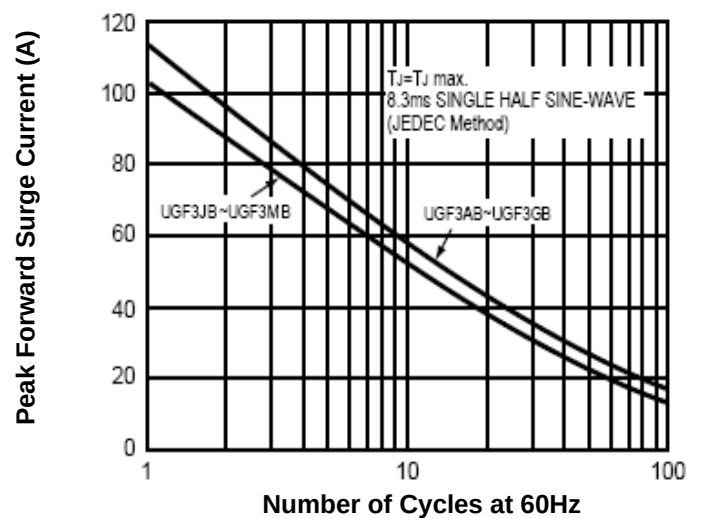


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



3.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF3AB - UGF3MB

Fig.3- Typical Instantaneous Forward Characteristics

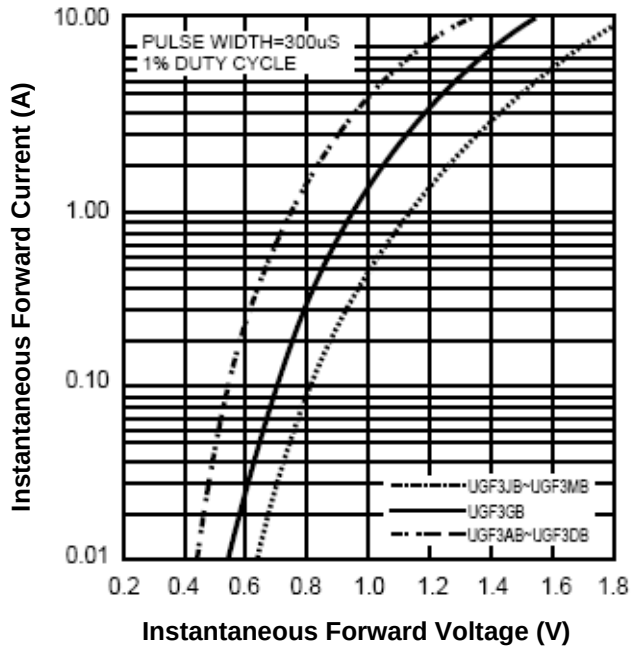


Fig.4-Typical Reverse Characteristics

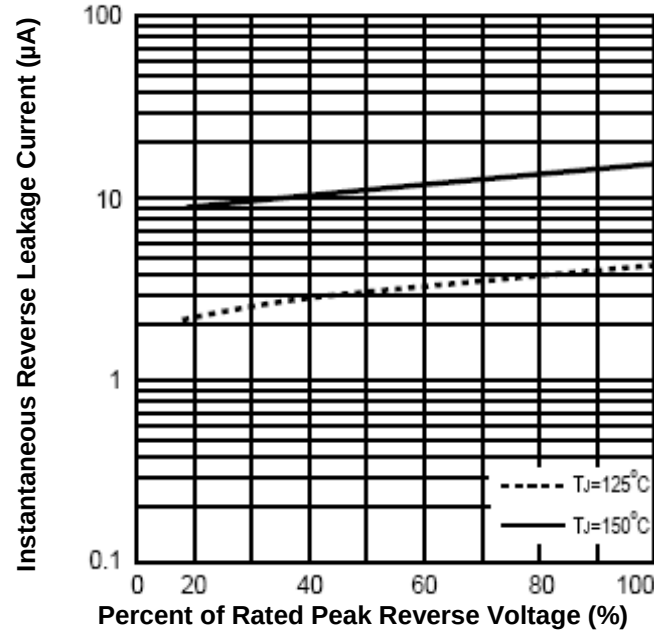
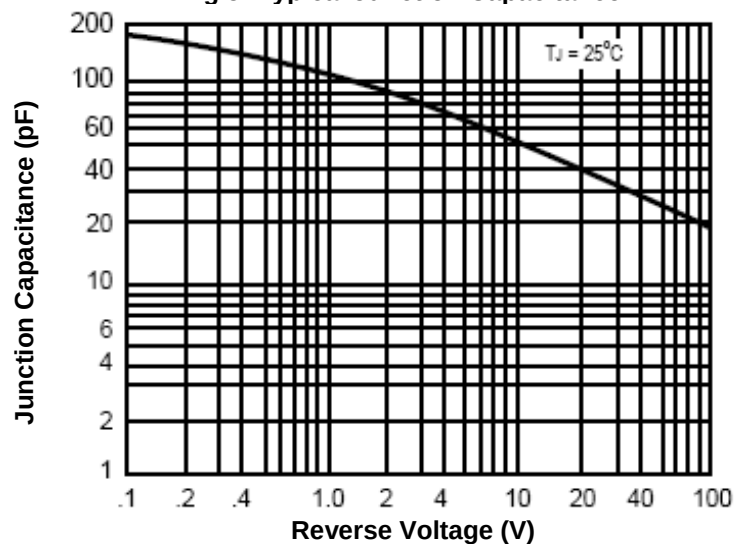


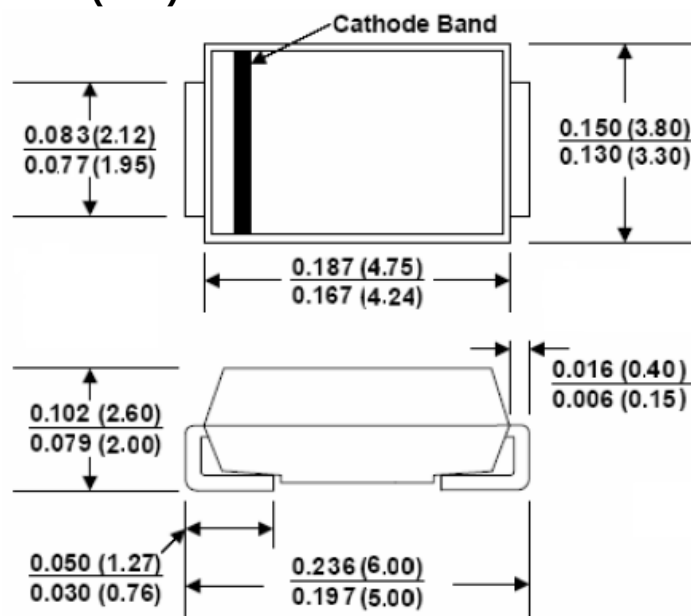
Fig.5- Typical Junction Capacitance



3.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF3AB – UGF3MB

Dimensions in inches (mm)



SMB

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