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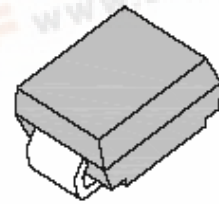
3.0A Sintered Glass Passivated Ultra Fast Rectifier

UGF3AB – UGF3MB

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
VRRM	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
VRMS	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
VDC	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
IF(AV)	Maximum Average Forward Rectified Current	3.0							A	$T_A=75^\circ\text{C}$
IFSM	Peak Forward Surge Current	115				105			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

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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

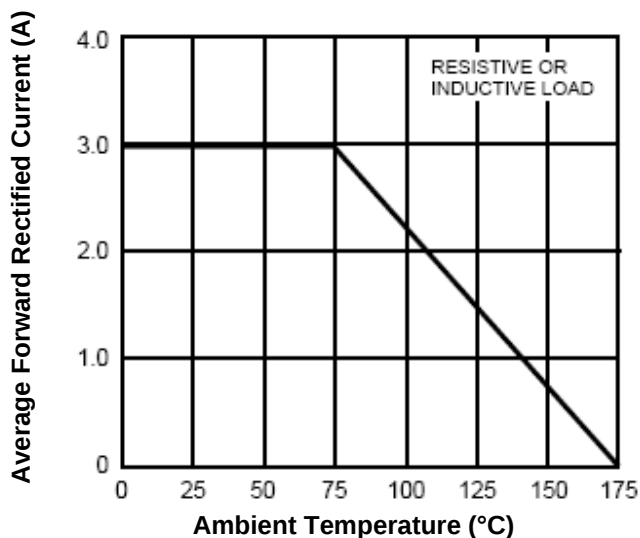
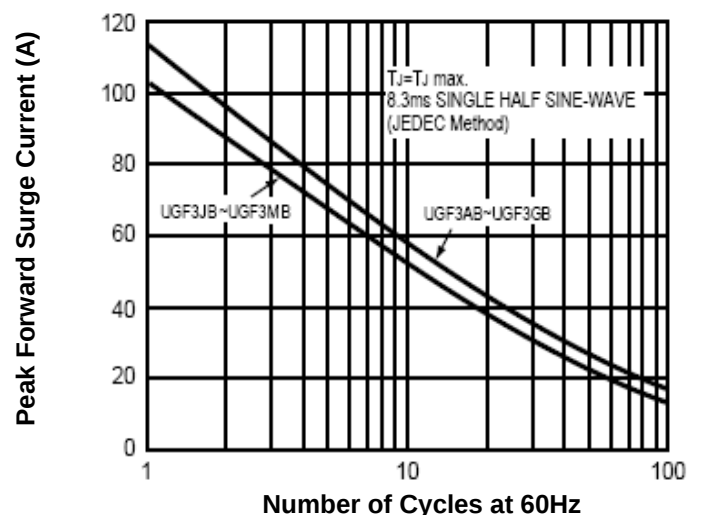


Fig.2-Max. Non-Repetitive Peak Forward Surge Current



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Fig.3- Typical Instantaneous Forward Characteristics

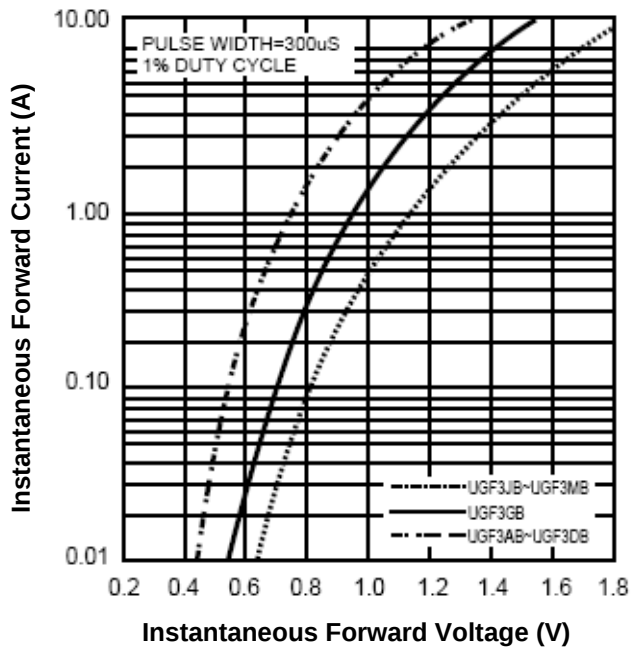


Fig.4-Typical Reverse Characteristics

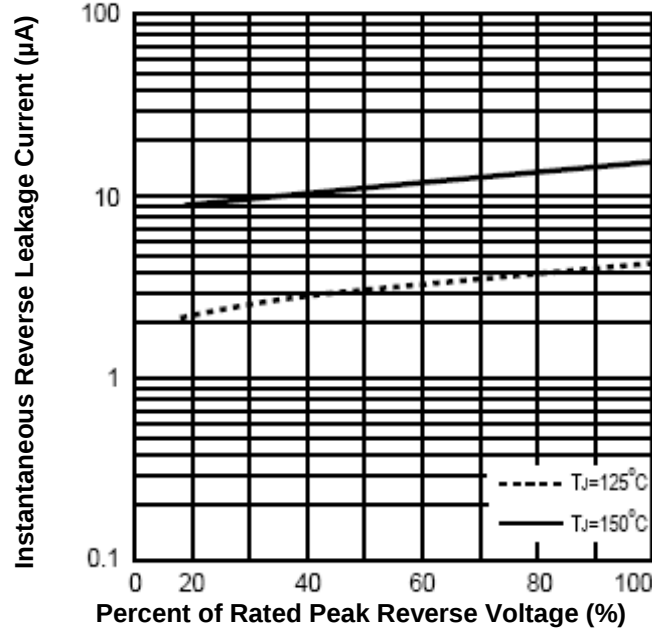
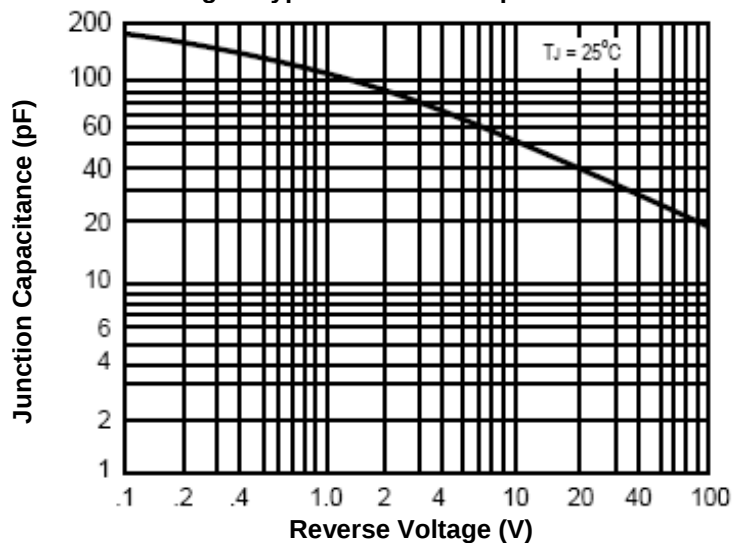


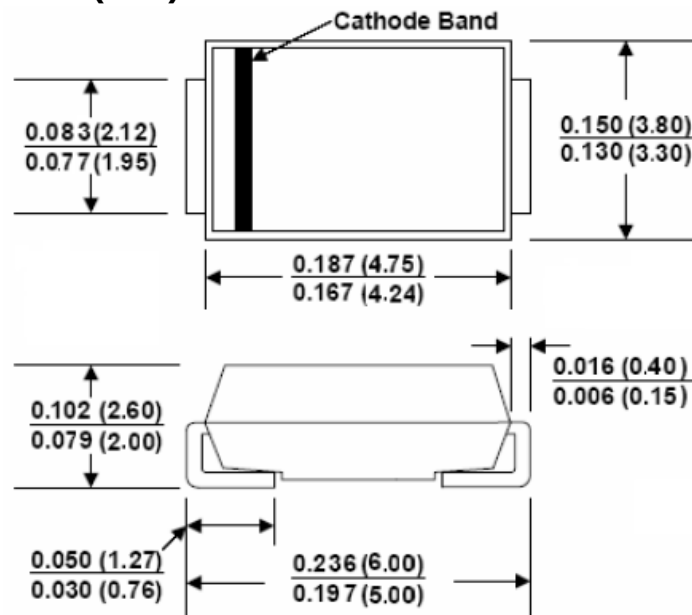
Fig.5- Typical Junction Capacitance



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Dimensions in inches (mm)



SMB

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