GS3AB THRU GS3MB

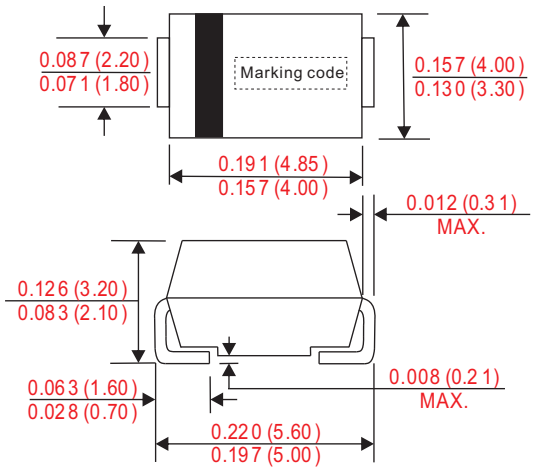
3A Surface Mount General Purpose Rectifiers

■ Features

- Low profile surface mounted application in order to optimize board space.
- High current capability.
- High surge capability.
- Glass passivated chip junction inside.
- Suffix "G" indicates Halogen-free part, ex.GS3ABG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

■ Outline

SMB(DO-214AA)



Dimensions in inches and (millimeters)

■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AA / SMB
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.003 ounce, 0.091 gram

■ 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%.

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current		I_O			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			100	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25°C$	I_R			5.0	uA
	$V_R = V_{RRM}$ $T_A = 125°C$				100	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		47		°C/W
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		53		pF
Storage temperature		T_{STG}	-55		+150	°C

Symbol	Marking code	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. RMS voltage V_{RMS} (V)	Max. DC blocking voltage V_R (V)	Max. forward voltage @3.0A, $T_A = 25°C$ V_F (V)	Operating temperature T_J (°C)
GS3AB	GS3A	50	35	50	1.10	-55 ~ +150
GS3BB	GS3B	100	70	100		
GS3DB	GS3D	200	140	200		
GS3GB	GS3G	400	280	400		
GS3JB	GS3J	600	420	600		
GS3KB	GS3K	800	560	800		
GS3MB	GS3M	1000	700	1000		

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■ Rating and characteristic curves

Fig.1 - Forward Current Derating Curve

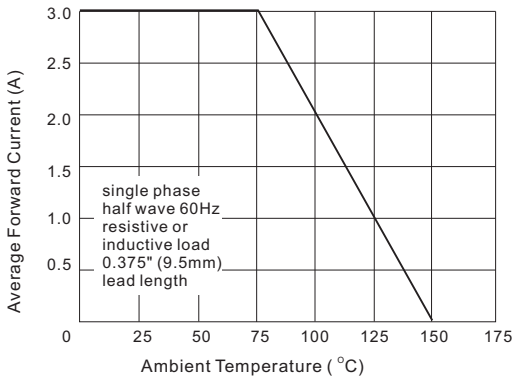


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

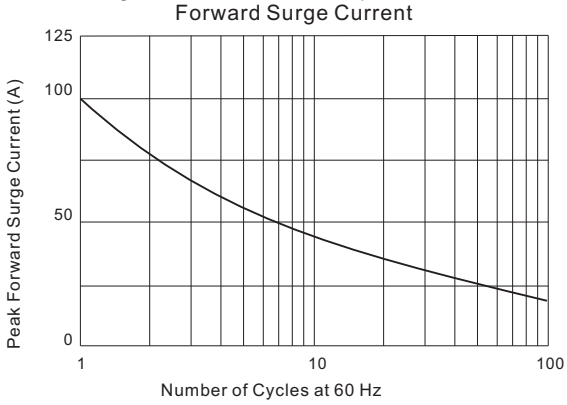


Fig. 3 - Typical Instantaneour Forward Characteristics

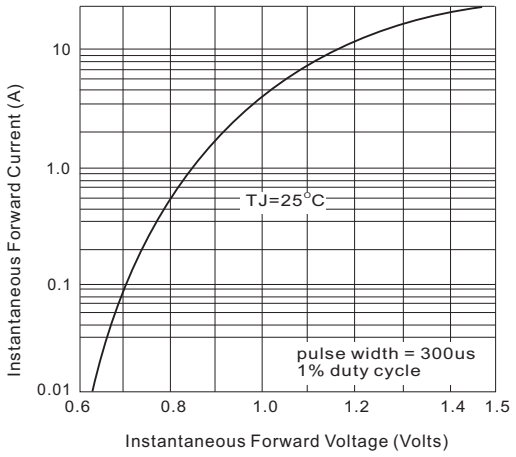


Fig. 4 - Typical Reverse Characteristics

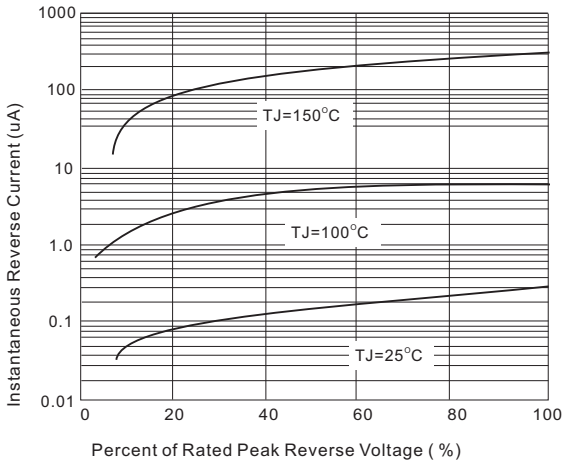
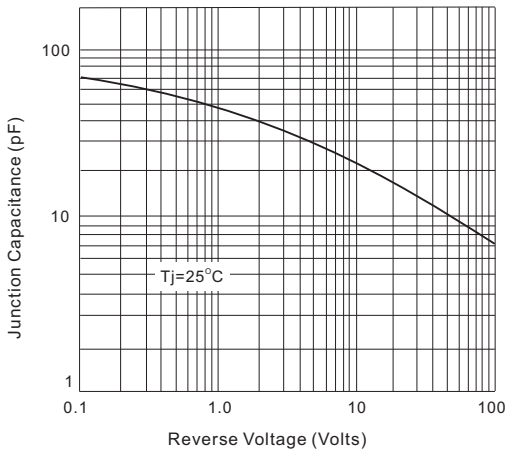


Fig. 5 - Typical Junction Capacitance



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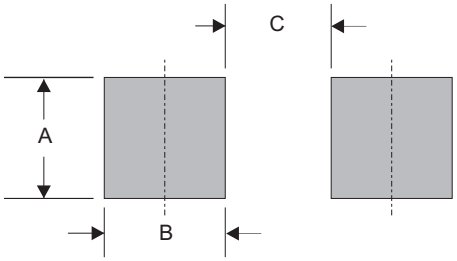
■ SMB foot print



A	B	C
0.091 (2.30)	0.098 (2.50)	0.071 (1.80)

Dimensions in inches and (millimeters)

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