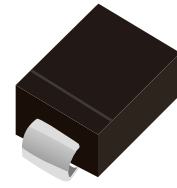


## FEATURES

- | Low profile package
- | Ideal for automated placement
- | Glass passivated Junction chip
- | High forward surge current capability



DO-214AA(SMB)



Schematic Symbol

## APPLICATIONS

- | For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer and telecommunication

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

## MAXIMUM RATINGS AND CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter	Symbol	GS2AB	GS2BB	GS2DB	GS2GB	GS2JB	GS2KB	GS2MB	Unit
Marking		GS2A	GS2B	GS2D	GS2G	GS2J	GS2K	GS2M	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	
Average Rectified Output Current @60hz Sine Wave, Resistance Load, TL (Fig.1)	I <sub>O</sub>	2							A
Forward Surge Current (Non-Repetitive) @60hz Half-Sine Wave, 1 Cycle, T <sub>J</sub> =25°C	I <sub>FSM</sub>	50							
Forward Surge Current (Non-Repetitive) @1ms, Square Wave, 1 Cycle, T <sub>J</sub> =25°C		100							
Maximum Instantaneous Forward Voltage I <sub>FM</sub> =2.0A	V <sub>F</sub>	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>J</sub> =25°C	5.0							μA
	T <sub>J</sub> =125°C	100							
Typical Junction Capacitance Measured At 1mhz and Applied Reverse Voltage Of 4.0 V.D.C	C <sub>J</sub>	12							pF
Current Squared Time @1ms≤t≤8.3ms T <sub>J</sub> =25°C	I <sup>2</sup> t	10.735							A <sup>2</sup> s
Typical Thermal Resistance <sup>(1)</sup>	R <sub>θJ-A</sub>	60							°C/W
	R <sub>θJ-L</sub>	20							
	R <sub>θJ-C</sub>	15							
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note:

(1) Thermal Resistance From Junction to Ambient and From Junction to Lead Mounted On P.C.B. With 0.3" X 0.3" (8.0 mm X 8.0 mm) Copper Pad Areas

# CHARACTERISTIC CURVES

Fig. 1- I<sub>o</sub>-TL Curve

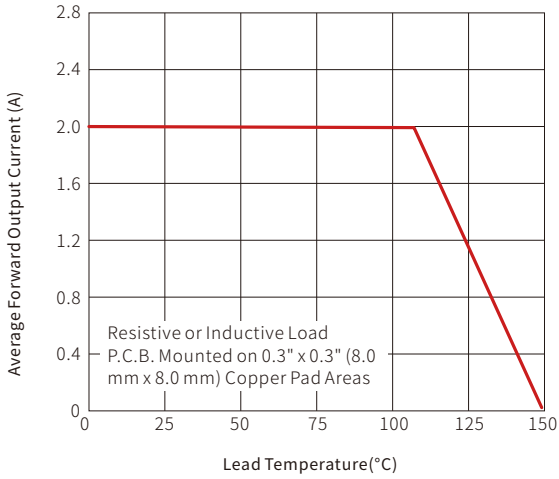


Fig. 2-Forward Surge Current Capability

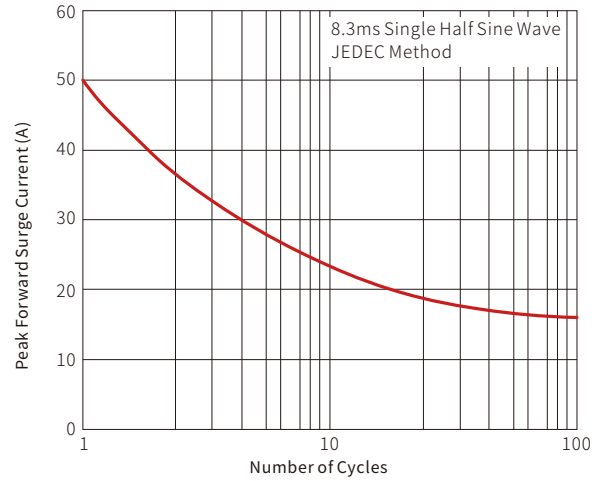


Fig. 3-Typical Forward Voltage

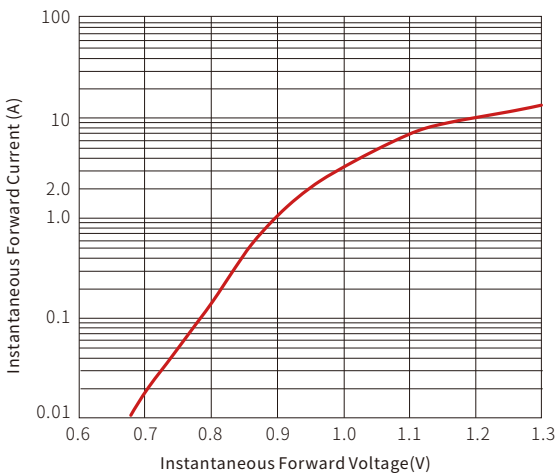
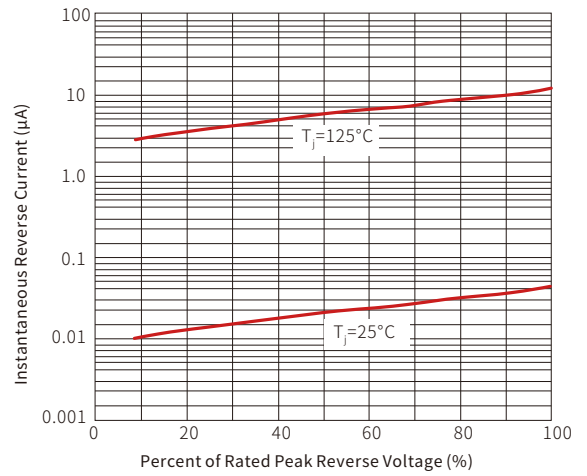
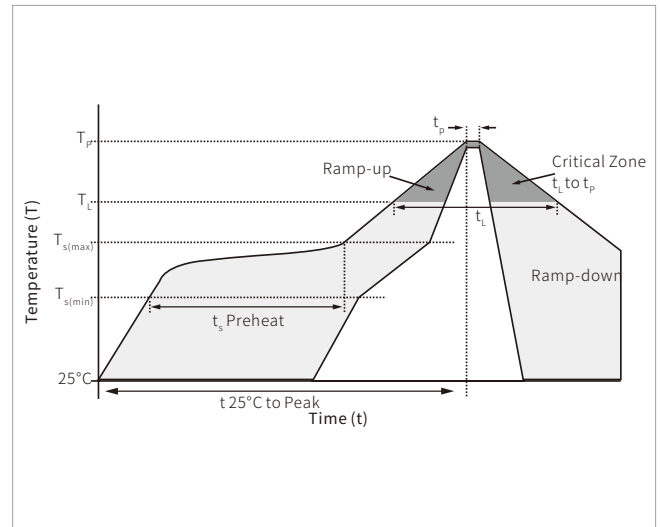


Fig. 4-Typical Reverse Characteristics

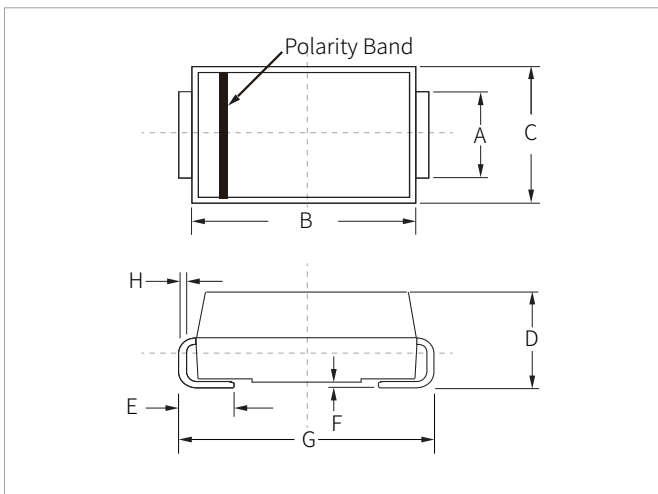


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak		3°C/second max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Time (min to max) ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260°C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

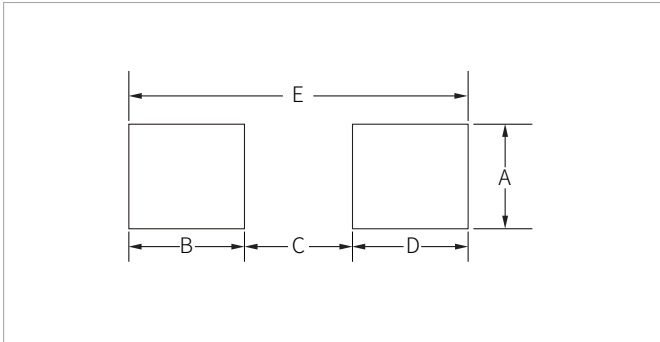


## DO-214AA(SMB) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.80	2.20	0.071	0.087
B	4.30	4.70	0.170	0.185
C	3.40	3.90	0.134	0.153
D	2.15	2.75	0.085	0.108
E	1.00	1.50	0.039	0.059
F	0.02	0.20	0.001	0.008
G	5.10	5.50	0.200	0.216
H	0.15	0.30	0.006	0.012

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.20	-	0.087	-
B	1.45	-	0.057	-
C	-	2.55	-	0.010
D	1.45	-	0.057	-
E	5.60REF		0.220REF	

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
GS2AB-GS2MB	DO-214AA(SMB)	3000PCS	13"

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