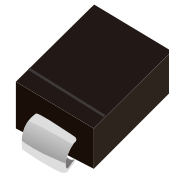


## FEATURES

- | Glass passivated chip junction
- | Ideal for automated placement
- | Low forward voltage drop
- | High surge current capability



DO-214AA(SMB)



Schematic Symbol

## APPLICATIONS

- | Switching mode power supply (SMPS)
- | Adapters
- | Lighting application
- | Converter

## 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	GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB	Unit
Marking		GS3AB	GS3BB	GS3DB	GS3GB	GS3JB	GS3KB	GS3MB	
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	
Forward Current	I <sub>F(AV)</sub>	3							A
Surge Peak Forward Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	I <sub>FSM</sub>	80							
Forward Voltage Per Diode I <sub>F</sub> =3A, T <sub>J</sub> =25°C <sup>(1)</sup>	V <sub>F</sub>	1.15							V
Reverse Current @ Rated V <sub>R</sub> Per Diode <sup>(2)</sup>	T <sub>J</sub> =25°C	10							μA
	T <sub>J</sub> =125°C	250							
Reverse Recovery Time I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A	T <sub>rr</sub>	1500							ns
Junction Capacitance, 1 MHz, V <sub>R</sub> =4.0V	C <sub>J</sub>	40							pF
Typical Thermal Resistance	R <sub>θJL</sub>	10							°C/W
Junction Temperature	T <sub>J</sub>	-55 to +150							°C
Storage Temperature	T <sub>STG</sub>	-55 to +150							°C

### Notes:

1. Pulse Test With PW=0.3 ms
2. Pulse Test With PW=30 ms

# CHARACTERISTIC CURVES

Fig. 1- Forward Current Derating Curve

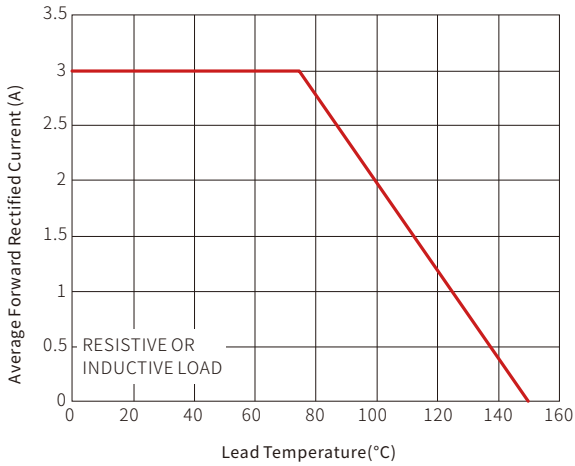


Fig. 2-Typical Reverse Characteristics

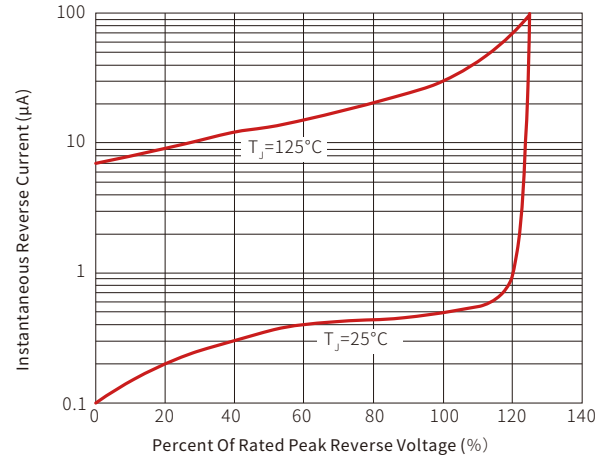


Fig. 3-Typical Junction Capacitance

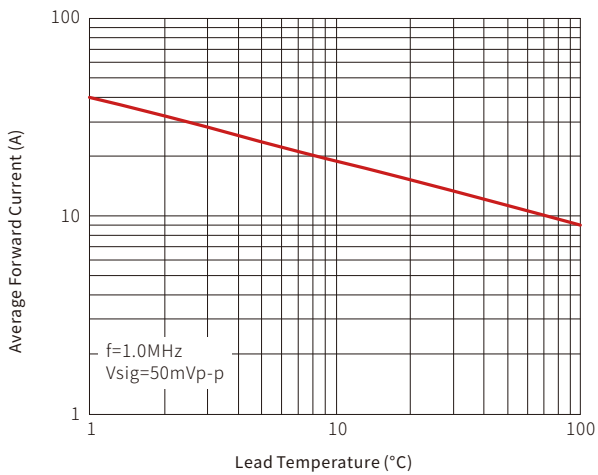
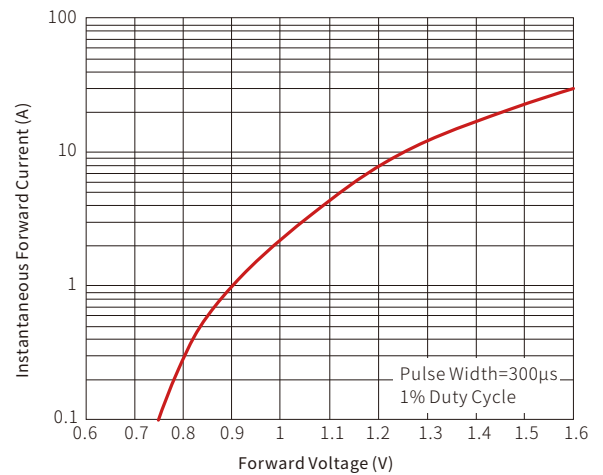
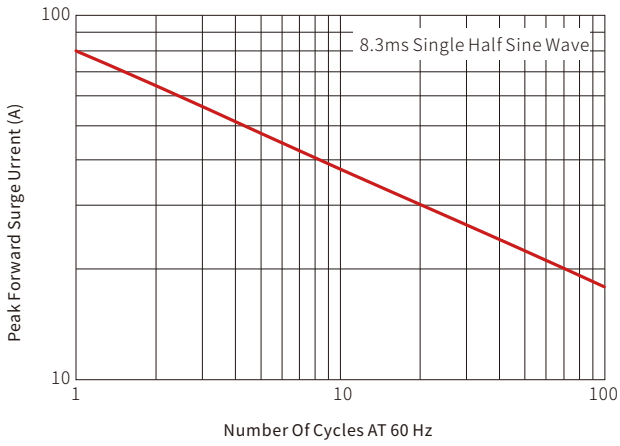


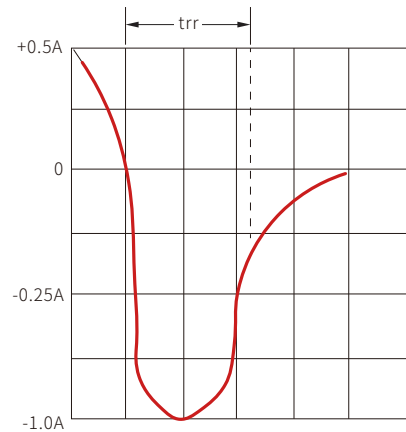
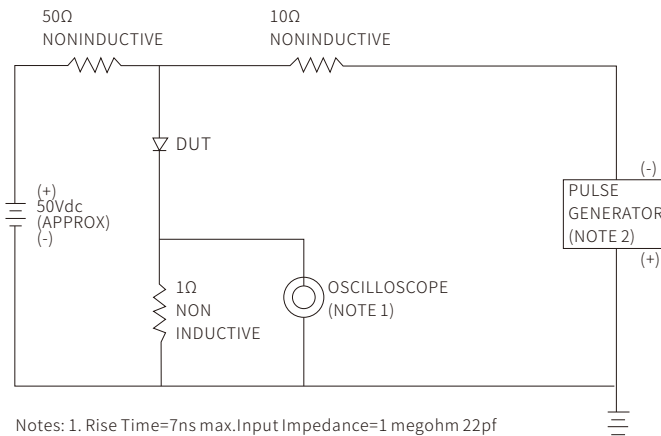
Fig. 4-Typical Forward Characteristics



**Fig. 5- Maximum Non-repetitive Forward Surge Current**

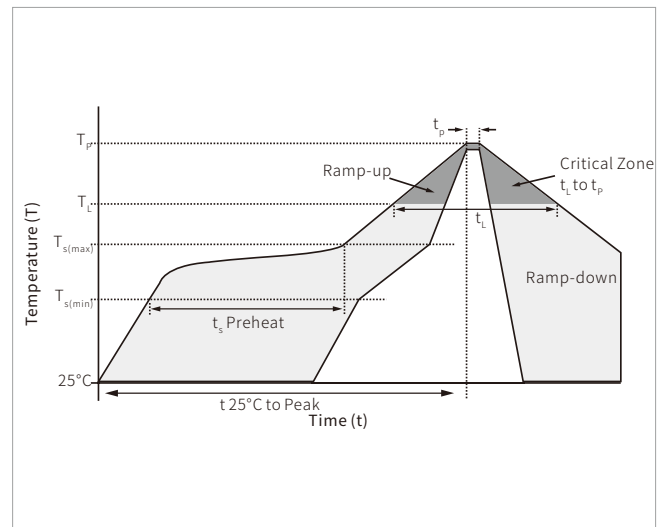


**Fig. 6-Reverse Recovery Time Characteristic And Test Circuit Diagram**

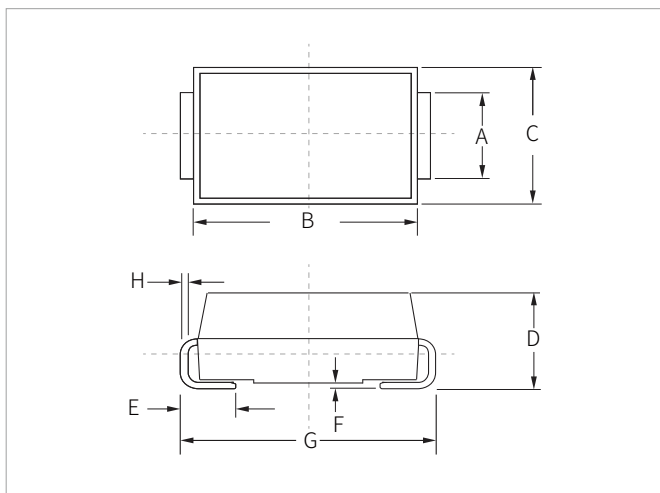


## SOLDERING PARAMETERS

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

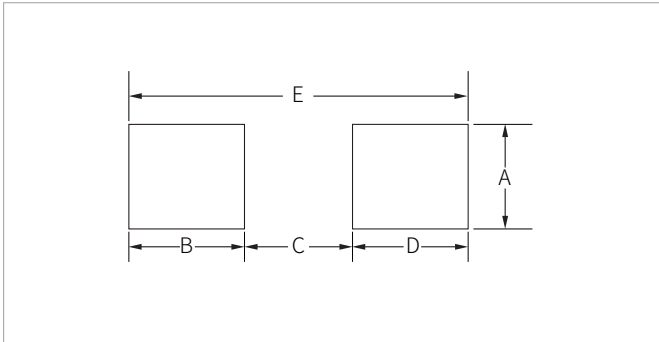


## DO-214AA(SMB) PACKAGE INFORMATION



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
GS3AB-GS3MB	DO-214AA(SMB)	3000PCS	13"

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