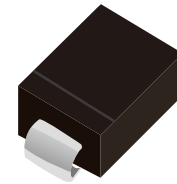
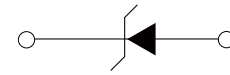


## FEATURES

- | Low power loss, high efficiency
- | Ideal for automated placement
- | Glass passivated junction chip
- | Fast switching for high efficiency



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	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	Unit
Marking		RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	
Repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	
Reverse voltage, total rms value	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>	2							A
Surge peak forward current, 8.3ms single half sine-wave superimposed on rated load per diode	I <sub>FSM</sub>	50							
Forward voltage per diode <sup>(1)</sup> I <sub>F</sub> =2A, T <sub>J</sub> =25°C	V <sub>F</sub>	1.3							V
Reverse current @ rated V <sub>R</sub> per diode <sup>(2)</sup>	T <sub>J</sub> =25°C	5							μA
	T <sub>J</sub> =125°C	50							
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>	150				250	500	ns	
Junction capacitance 1 MHz, V <sub>R</sub> =4.0V	C <sub>J</sub>	50							pF
Junction-to-lead thermal resistance per diode	R <sub>θJL</sub>	18							°C/W
Junction-to-ambient thermal resistance per diode	R <sub>θJA</sub>	55							°C/W
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

Note :

- 1.Pulse test with PW=0.3 ms
- 2.Pulse test with PW=30 ms

# CHARACTERISTIC CURVES

Fig. 1- Forward Current Derating Curve

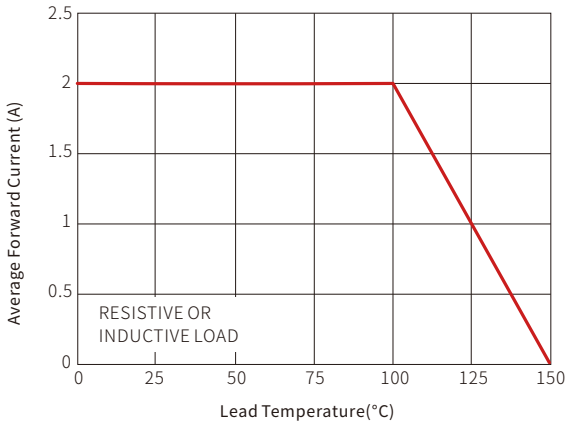


Fig. 2-Typical Reverse Characteristics

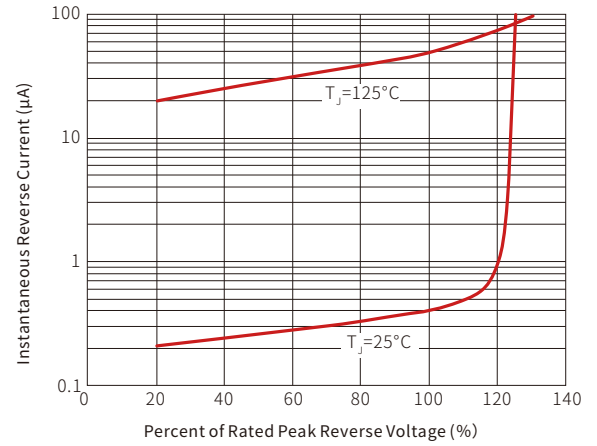


Fig. 3-Typical Junction Capacitance

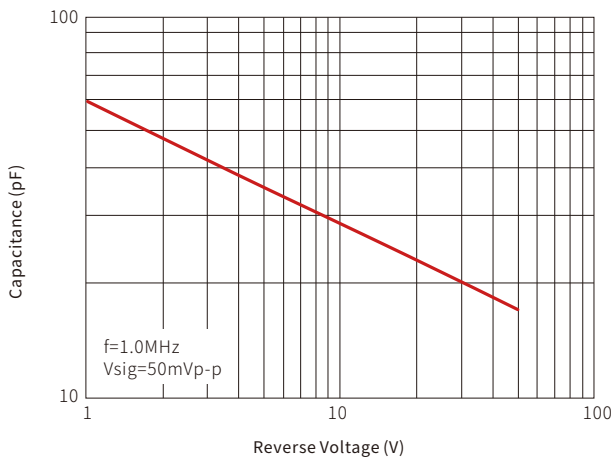
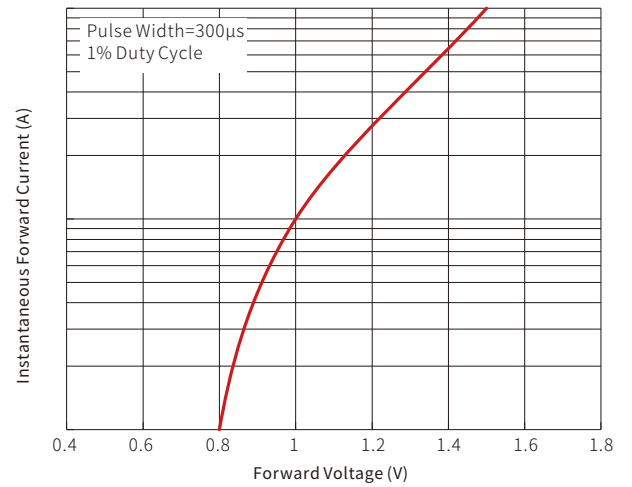
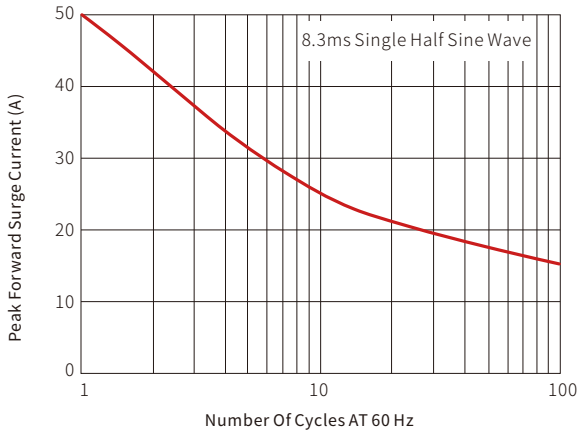


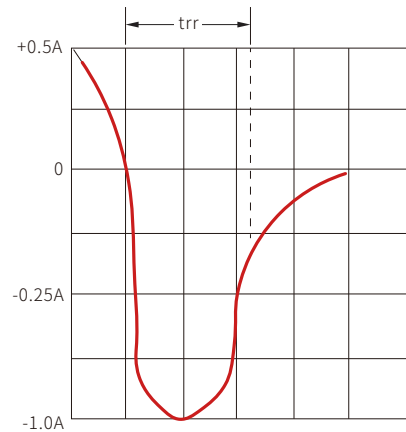
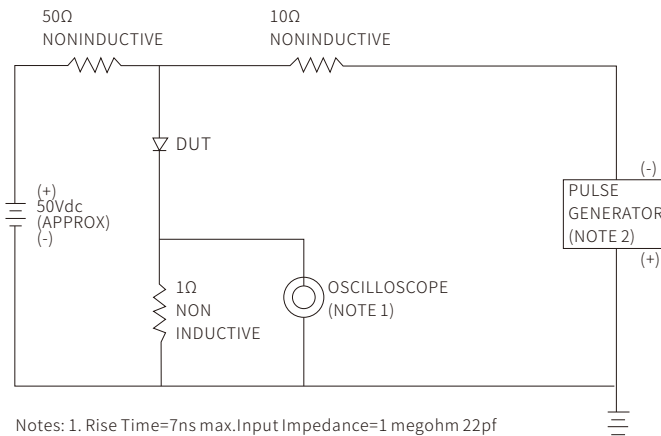
Fig. 4-Typical Forward Characteristics



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

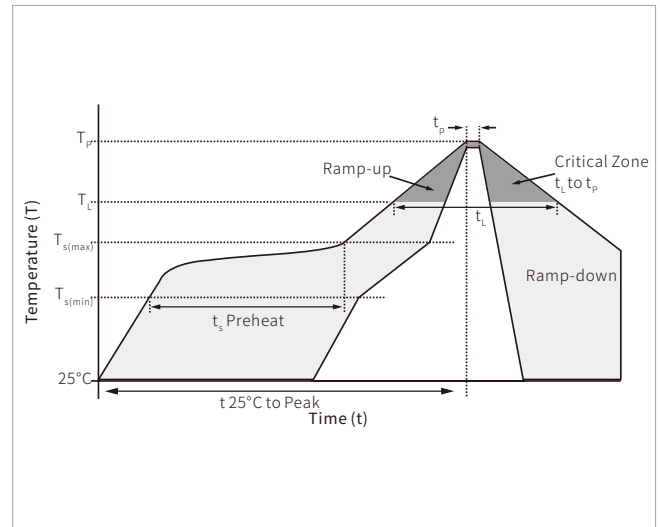


**Fig. 6-Reverse Recovery Time Characteristic And Test Circuit Diagram**

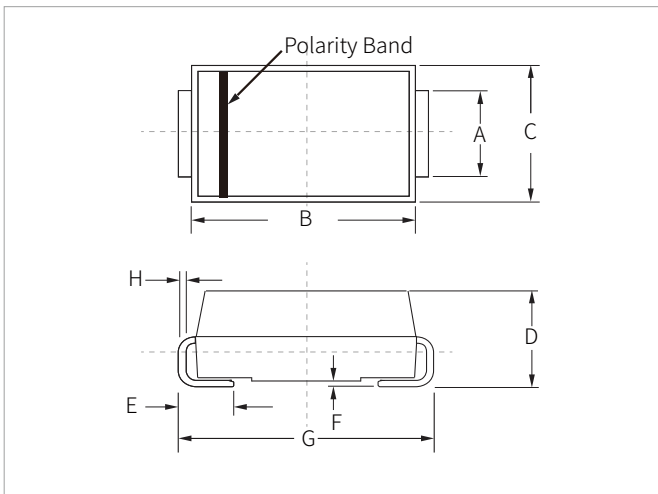


## SOLDERING PARAMETERS

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

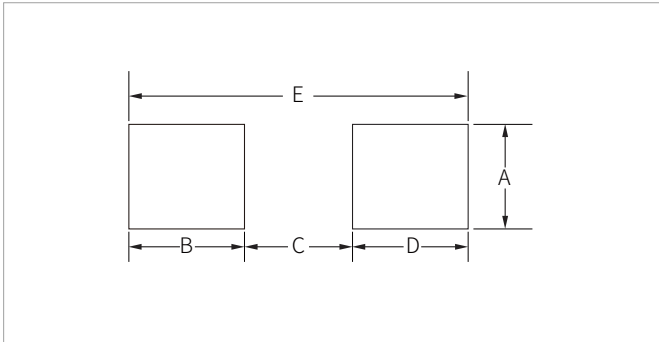


## DO-214AA(SMB) PACKAGE INFORMATION



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
RS2A-RS2M	DO-214AA(SMB)	3000PCS	13"

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