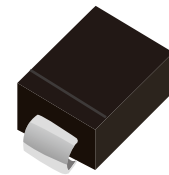


## FEATURES

- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability



DO-214AA(SMB)



Schematic Symbol

## MECHANICAL DATA

- Case : Molded plastic body
- Polarity : Polarity symbol marking on body
- Mounting Position : Any

## 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	RS5AB	RS5BB	RS5DB	RS5GB	RS5JB	RS5KB	RS5MB	Unit
Marking			RS5AB	RS5BB	RS5DB	RS5GB	RS5JB	RS5KB	RS5MB	
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	
Maximum Average Forward Rectified Current at T <sub>L</sub> =100°C		I <sub>F(AV)</sub>	5.0							A
Surge Peak Forward Current,8.3ms Single Half Sine-Wave Superimposed On Rated Load Per Diode		I <sub>FSM</sub>	150.0							
Maximum Instantaneous Forward Voltage at 5.0A		V <sub>F</sub>	1.30							V
Maximum Reverse Current @Rated V <sub>R</sub>	T <sub>J</sub> =25°C	I <sub>R</sub>	2.0							μA
	T <sub>J</sub> =125°C		200							
Maximun Reverse Recovery Time(Note 1)		T <sub>rr</sub>	150				250	500		pF
Typical Junction Capacitance (Note2)		C <sub>J</sub>	70.0							pF
Typical Thermal Resistance		R <sub>θJA</sub>	60.0							°C/W
Operating Junction and Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

 Note 1. Reverse Recovery Time Test Condition: I<sub>F</sub>=0.5a I<sub>R</sub>=1.0a I<sub>RR</sub>=0.25a

2. Measured at 1mhz and Applied Reverse Voltage Of 4.0 V.D.C.

# CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

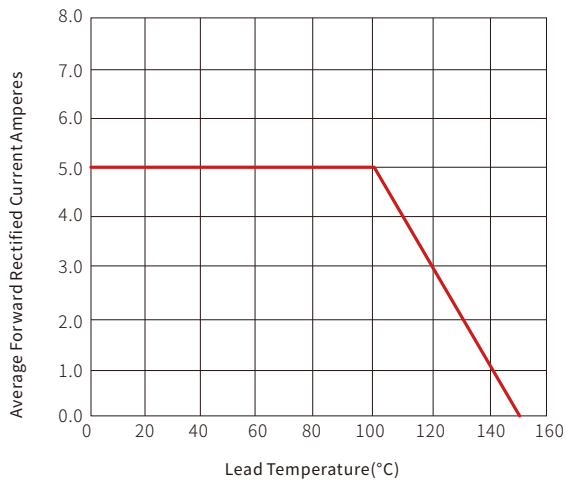


Fig. 2- Maximum Non-repetitive Peak Forward Surge Current Perleg

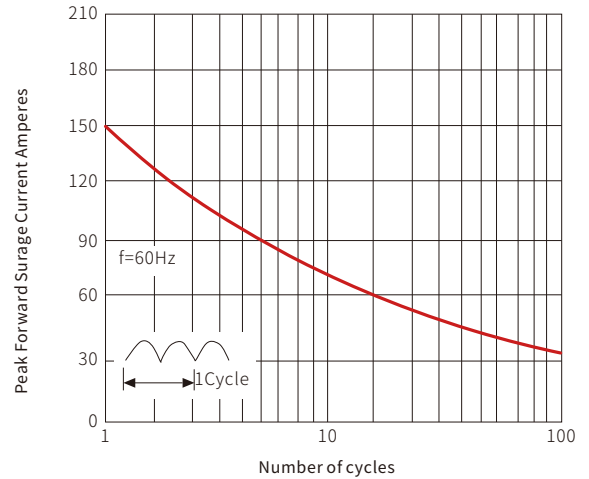


Fig. 3- Typical Forward Voltage Characteristics

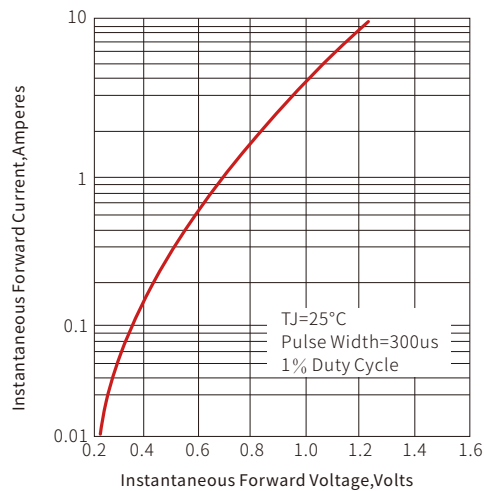
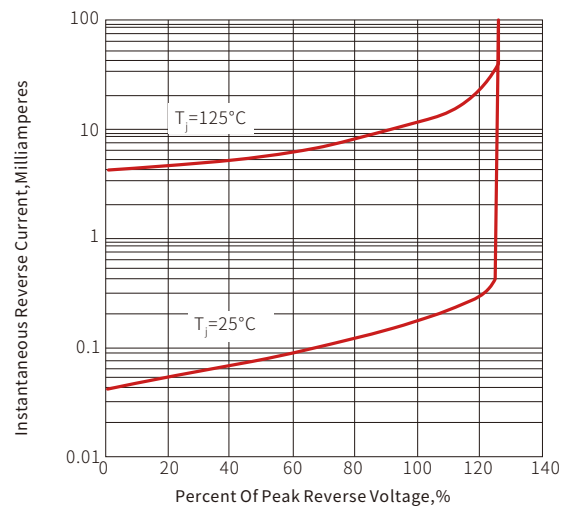
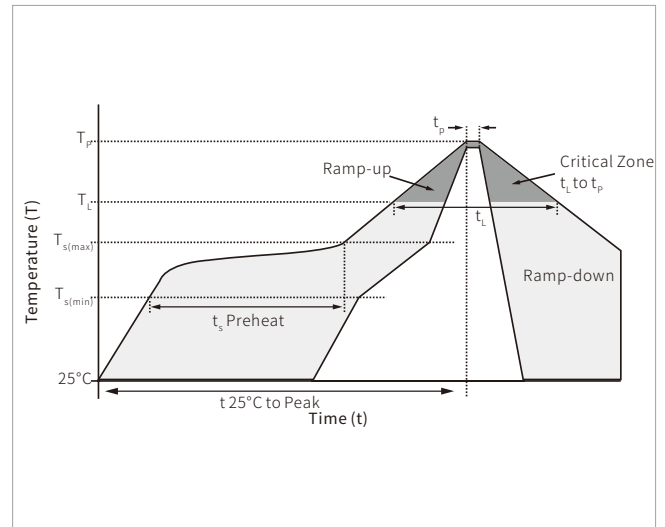


Fig. 4- Typical Reverse Leakage Characteristics

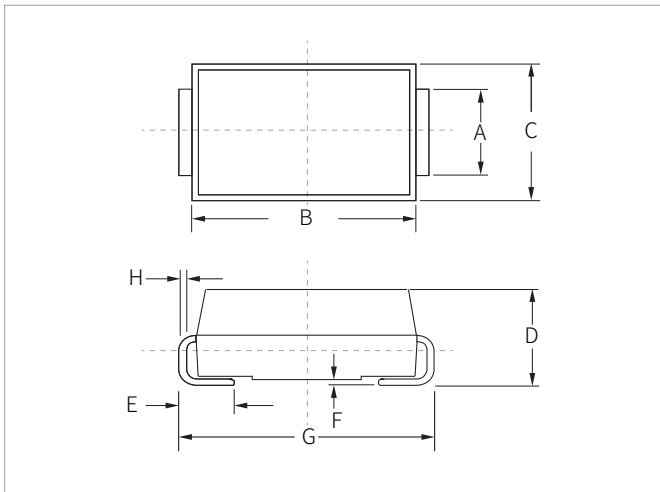


## SOLDERING PARAMETERS

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

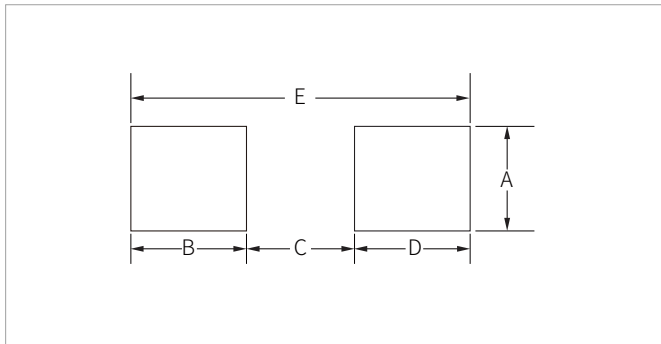


## DO-214AA(SMB) PACKAGE INFORMATION



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
RS5AB-RS5MB	DO-214AA(SMB)	3000PCS	13"

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Wechat

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