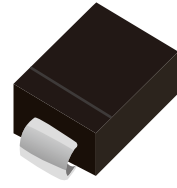
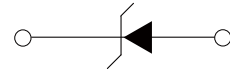


## FEATURES

- | The plastic package carries Underwriters Laboratory  
Flammability Classification 94V-0
- | For surface mounted applications
- | Built-in strain relief, ideal for automated placement
- | Low reverse leakage
- | High forward surge current capability
- | High temperature soldering guaranteed 250 C/10 seconds at  
terminals



DO-214AA(SMB)



Schematic Symbol

## APPLICATIONS

- | Case : Molded plastic body
- | Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- | Polarity : Polarity symbol marking on body
- | Mounting Position : Any

## APPROVALS

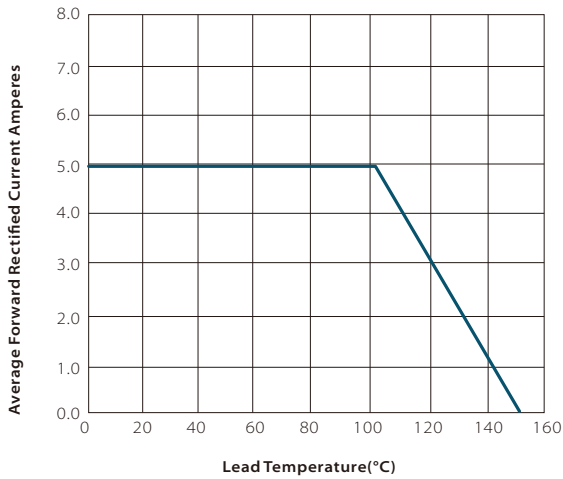
<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

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

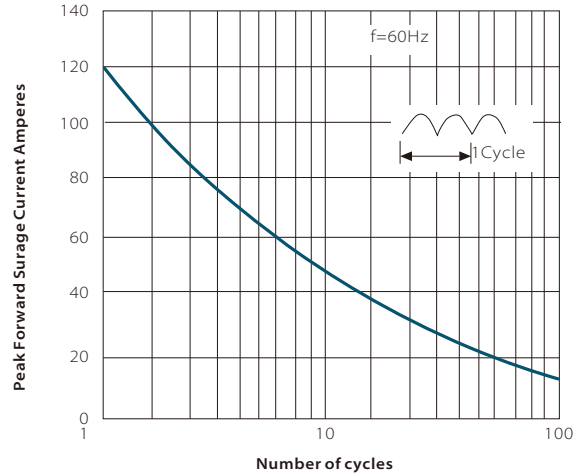
Parameter	Symbol	SS54BLF	SS545BLF	SS55BLF	SS56BLF	SS58BLF	SS510BLF	Unit
Marking		SS54BLF	SS545BLF	SS55BLF	SS56BLF	SS58BLF	SS510BLF	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	40	45	50	60	80	100	V
Maximum RMS voltage	V <sub>RMS</sub>	28	31.5	35	42	56	70	V
Maximum DC blocking voltage	V <sub>DC</sub>	40	45	50	60	80	100	V
Maximum average forward rectified current at T <sub>L</sub> = 100 C	I <sub>(AV)</sub>	5.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	120.0						A
Maximum instantaneous forward voltage at 5.0A	V <sub>F</sub>	0.45			0.50	0.65		V
Maximum DC reverse current	T <sub>A</sub> = 25°C	0.5				0.2		mA
	T <sub>A</sub> = 100°C	50				20		mA
Typical thermal resistance	R <sub>θJA</sub>	85.0						°C/W
Operating junction temperature range	T <sub>J</sub>	-55 to +150						°C
Storage temperature range	T <sub>STG</sub>	-55 to +150						°C

# CHARACTERISTIC CURVES

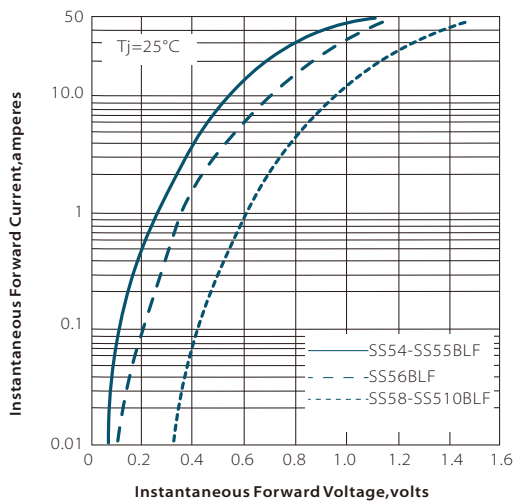
**Fig. 1- Derating Curve Output Rectified Current**



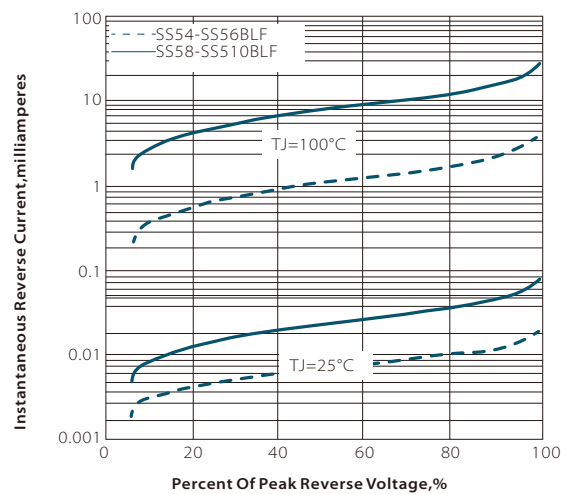
**Fig. 2-Maximum Non-repetitive Peak Forward Surge Current Perleg**



**Fig. 3-Typical Forward Voltage Characteristics**

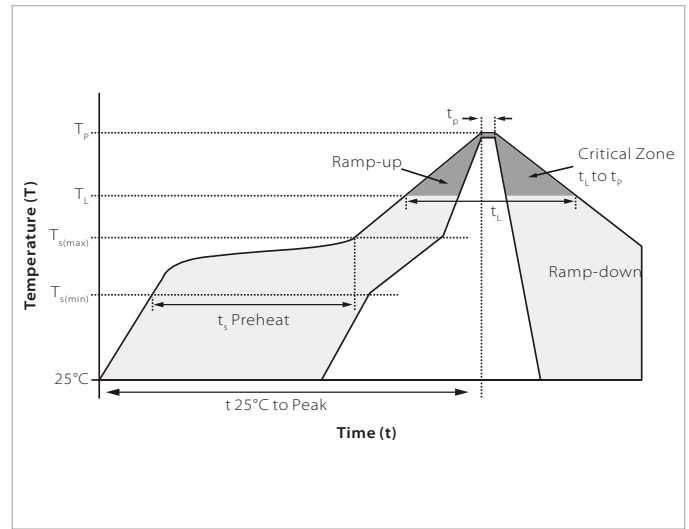


**Fig. 4-Typical Reverse Leakage Characteristics**

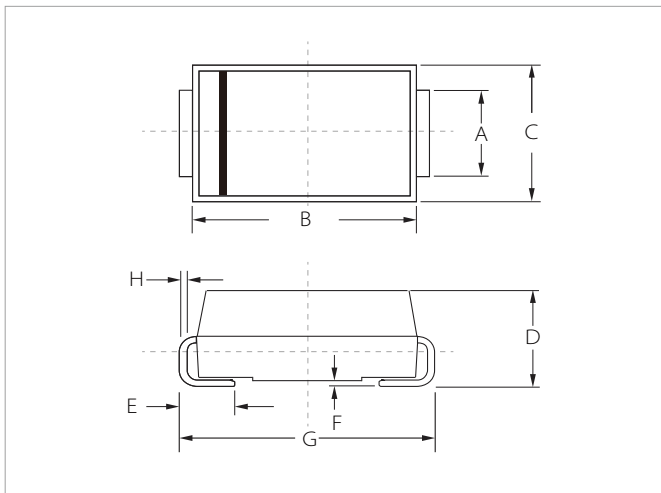


## SOLDERING PARAMETERS

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) ( $t_2$ )	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) ( $t_1$ )	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

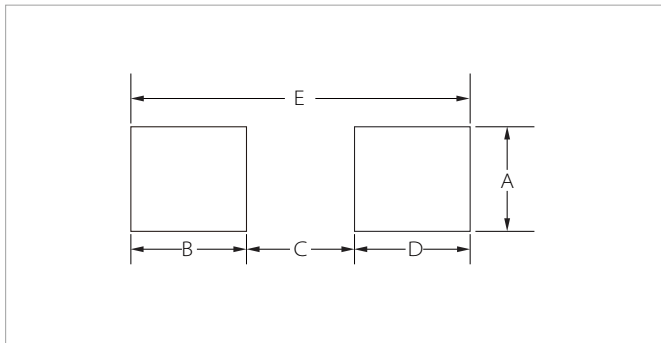


## DO-214AA(SMB) PACKAGE INFORMATION



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	2.55	0.085	0.100
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
SS54BLF-SS510BLF	DO-214AA(SMB)	3000PCS	13"

To find your local partner within Semiwell's website : [www.semiwell.com.cn](http://www.semiwell.com.cn)

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