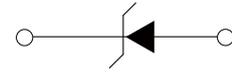


## FEATURES

- | For surface mounted applications
- | Built-in strain relief, ideal for automated placement
- | Low reverse leakage
- | High forward surge current capability
- | High temperature soldering guaranteed 260°C/10 seconds at terminals



DO-214AB(SMC)



Schematic Symbol

## APPLICATIONS

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

## APPROVALS

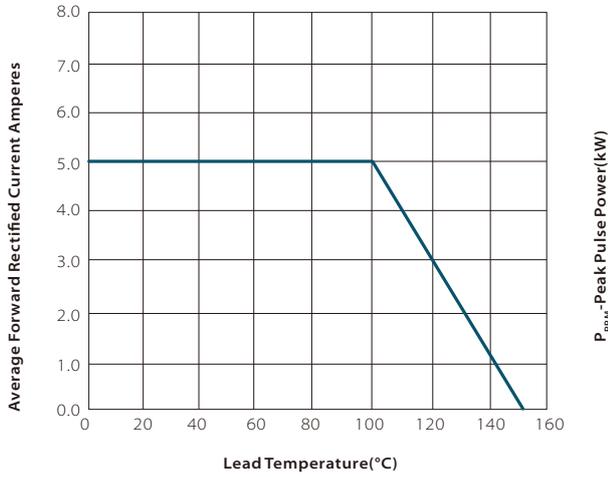
<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

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

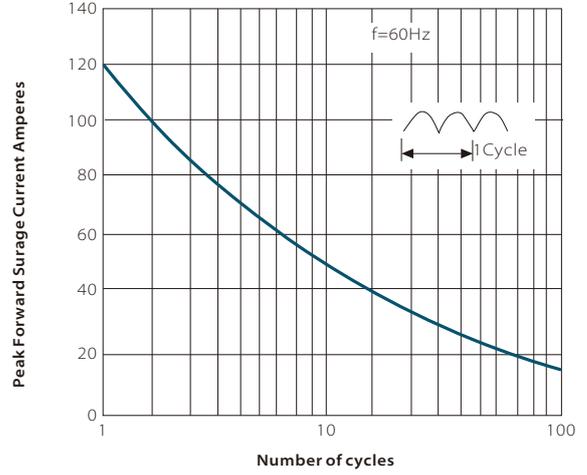
Parameter	Symbol	SS52C	SS54C	SS545C	SS56C	SS58C	SS510C	SS515C	SS520C	Unit
Marking		SS52	SS54	SS545	SS56	SS58	SS510	SS515	SS520	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	40	45	60	80	100	150	200	V
Maximum RMS voltage	V <sub>RMS</sub>	14	28	31.5	42	56	70	105	140	V
Maximum DC blocking voltage	V <sub>DC</sub>	20	40	45	60	80	100	150	200	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>	0.55		0.70	0.85		0.95		V	
Maximum DC reverse current	I <sub>R</sub>	T <sub>A</sub> = 25°C		0.2		0.05		mA		
		T <sub>A</sub> = 100°C		10		5		mA		
Typical thermal resistance	R <sub>θJA</sub>	47.0								°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

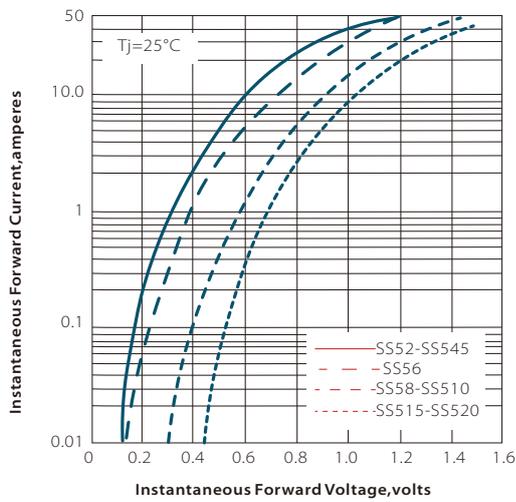
**Fig. 1- Derating Curve Output Rectified Current**



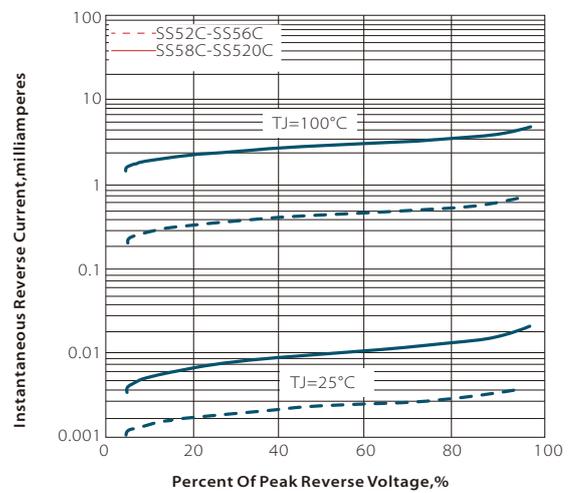
**Fig. 2-maximum Non-repetitive Peak Forward Surge Current Perleg**



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

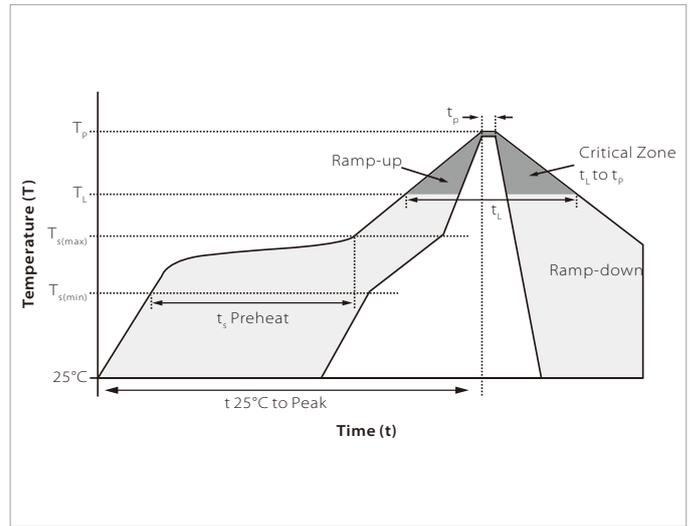


**Fig. 4-typical Reverse Leakage Characteristics**

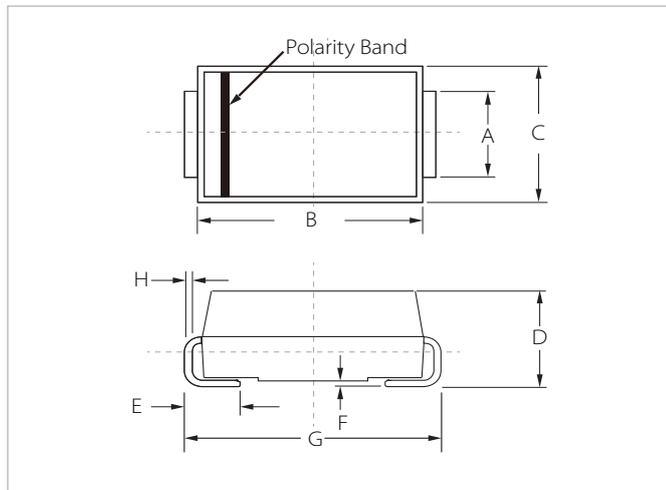


## SOLDERING PARAMETERS

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

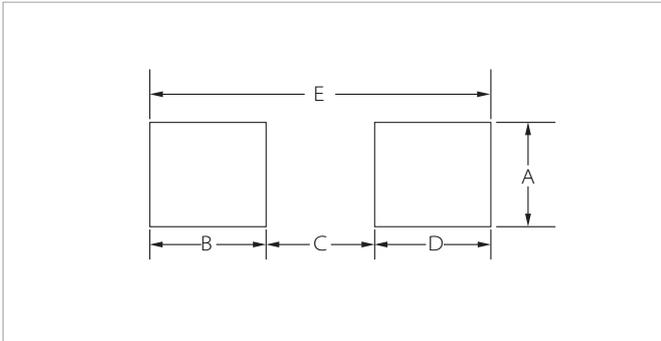


## DO-214AB(SMC) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.80	3.20	0.110	0.126
B	6.60	7.20	0.260	0.283
C	5.70	6.10	0.224	0.240
D	2.15	2.75	0.085	0.108
E	1.00	1.60	0.039	0.063
F	0.02	0.20	0.000	0.008
G	7.60	8.00	0.299	0.315
H	0.15	0.30	0.006	0.012

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	3.30	-	0.129	-
B	2.40	-	0.094	-
C	-	4.20	-	0.165
D	2.40	-	0.094	-
E	8.20REF		0.323REF	

## ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SS52C-SS520C	DO-214AB(SMC)	3000PCS	13"

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

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