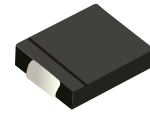
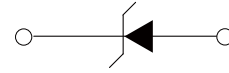


## FEATURES

- | Guardring for overvoltage protection
- | Low power losses
- | Extremely fast switching
- | High forward surge capability
- | High frequency operation



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	SS32C	SS33C	SS34C	SS35C	SS36C	SS38C	SS310C	SS315C	SS320C	Unit	
Marking		SS32	SS33	SS34	SS35	SS36	SS38	SS310	SS315	SS320		
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V	
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	56	70	105	140	V	
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	V	
Average Rectified Output Current @60Hz sine wave, Resistance load, T <sub>a</sub> (FIG.1)	I <sub>O</sub>	3.0									A	
Forward Surge Current (Non-repetitive) @ 60Hz Half-sine wave, 1 cycle, T <sub>a</sub> =25°C	I <sub>FSM</sub>	70									A	
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	0.55		0.70		0.85		0.95		V		
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	T <sub>A</sub> =25°C		0.5		0.1		mA				
		T <sub>A</sub> =100°C		10		5		mA				
Thermal Resistance Junction to ambient	R <sub>θJA</sub>	55 <sup>(1)</sup>									°C/W	
Thermal Resistance Junction to lead	R <sub>θJL</sub>	17 <sup>(1)</sup>									°C/W	
Operating junction temperature range	T <sub>J</sub>	-55 to +150					-55 to +175					°C
Storage temperature range	T <sub>STG</sub>	-55 to +150									°C	

Note : (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

# CHARACTERISTIC CURVES

Fig. 1- I<sub>o</sub>-T<sub>a</sub> Curve

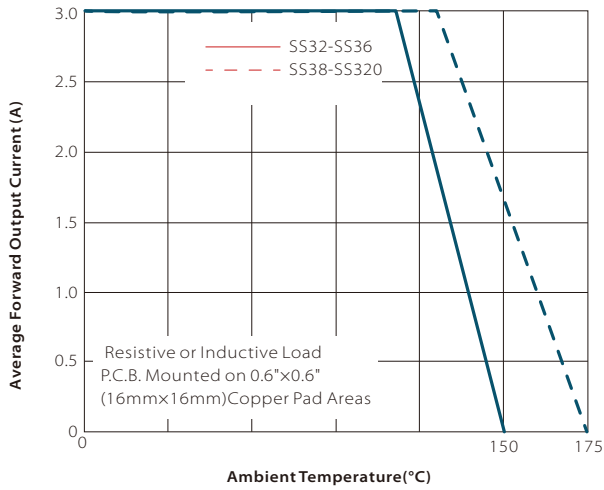


Fig. 2-Forward Surge Current Capability

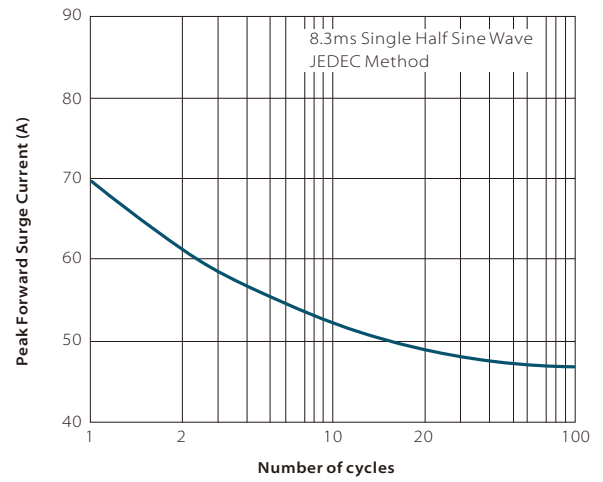


Fig. 3-typical Forward Voltage Characteristics

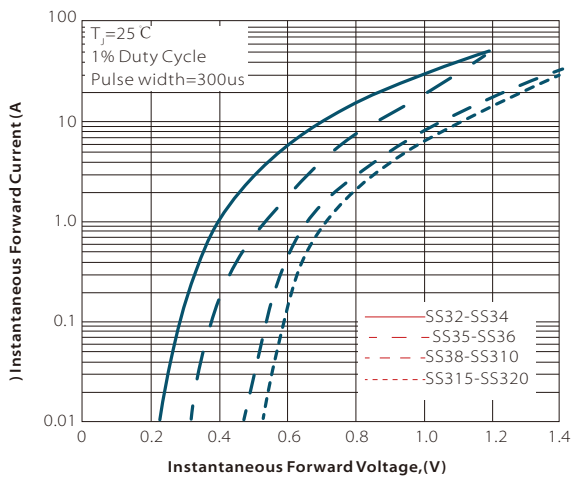
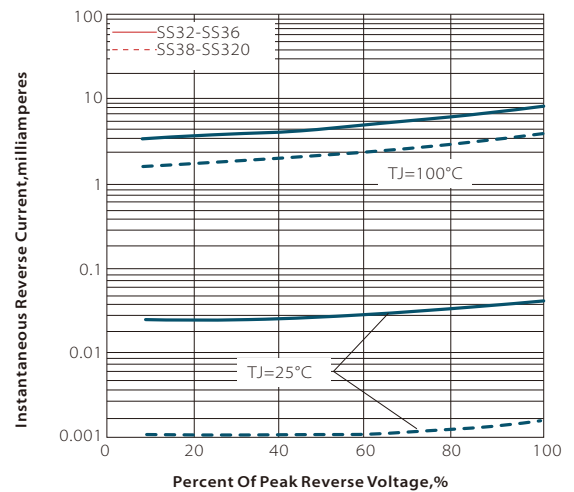
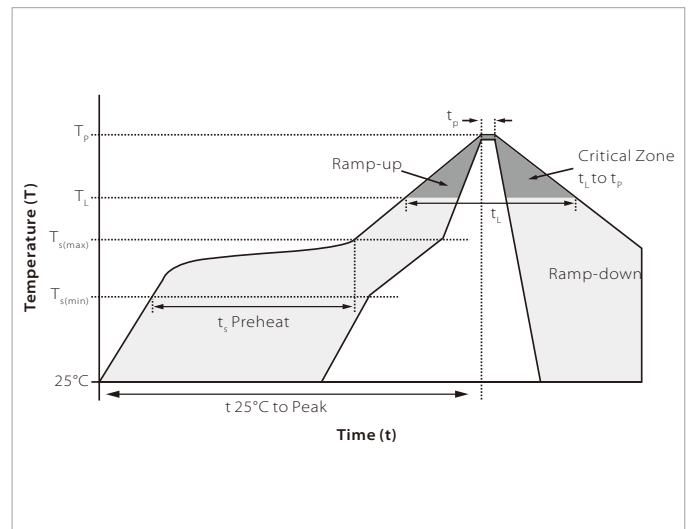


Fig. 4-typical Reverse Leakage Characteristics

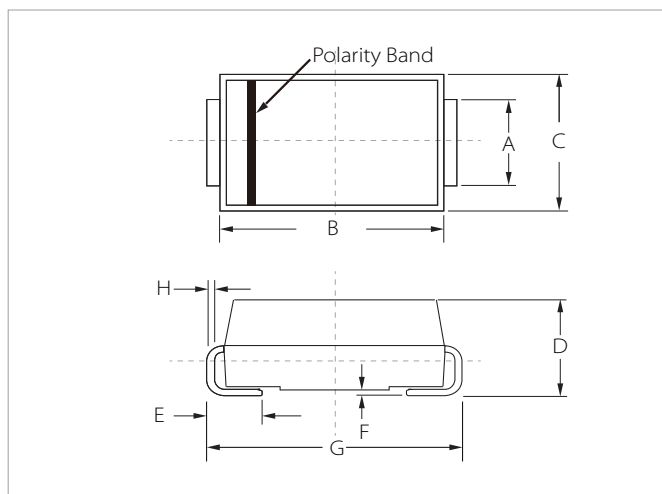


## SOLDERING PARAMETERS

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

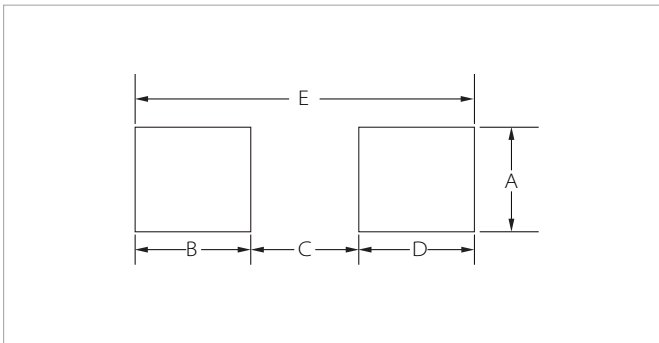


## DO-214AB(SMC) PACKAGE INFORMATION



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
SS32C-SS320C	DO-214AB(SMC)	3000PCS	13"

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

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