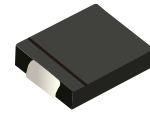
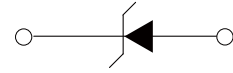


## FEATURES

- | Guardring For Overvoltage Protection
- | Low Power Losses
- | Extremely Fast Switching
- | High Forward Surge Capability
- | High Frequency Operation



DO-214AB(SMC)



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 (T<sub>A</sub>=25°C)

Schottky Barrier Rectifier

Parameter	Symbol	SS 32C	SS 33C	SS 34C	SS 35C	SS 36C	SS 38C	SS 310C	SS 315C	SS 320C	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, Ta (FIG.1)	I <sub>O</sub>	3.0									A	
Forward Surge Current (Non-Repetitive) @ 60Hz Half-Sine Wave, 1 cycle, Ta=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>θJ-A</sub>	55 <sup>(1)</sup>									°C/W	
Thermal Resistance Junction to Lead	R <sub>θJ-L</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

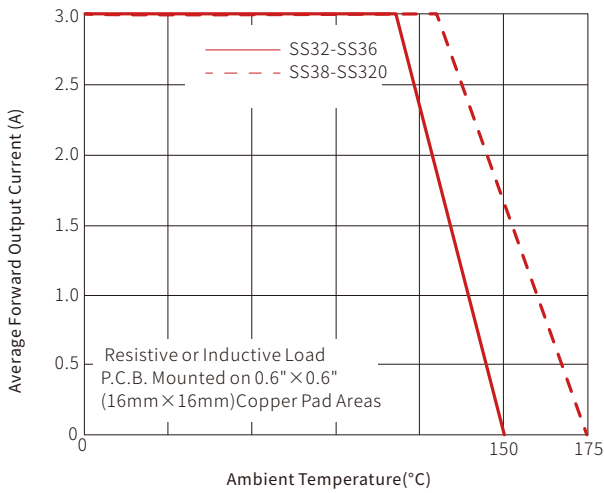


Fig. 2-Forward Surge Current Capability

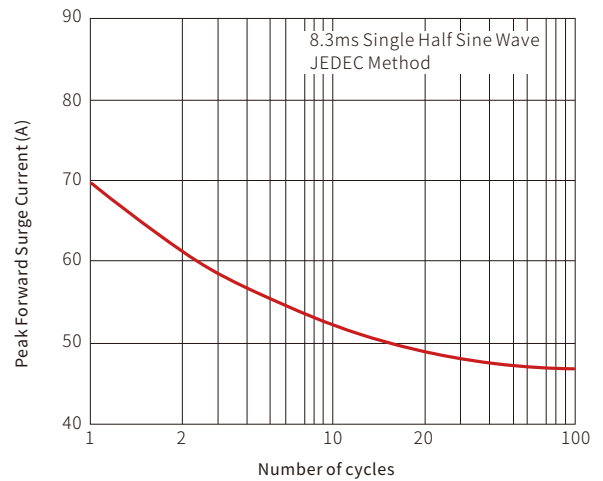


Fig. 3-typical Forward Voltage Characteristics

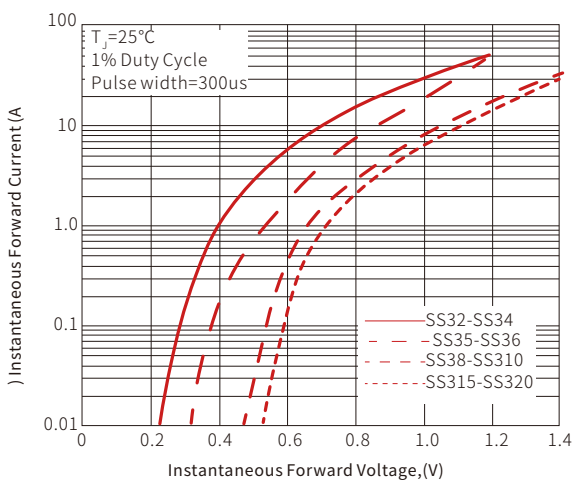
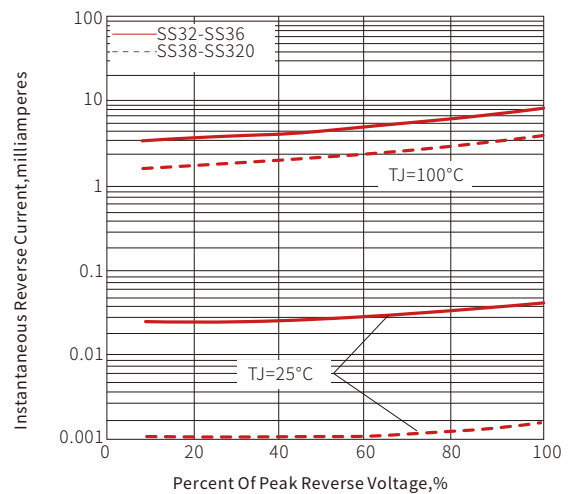
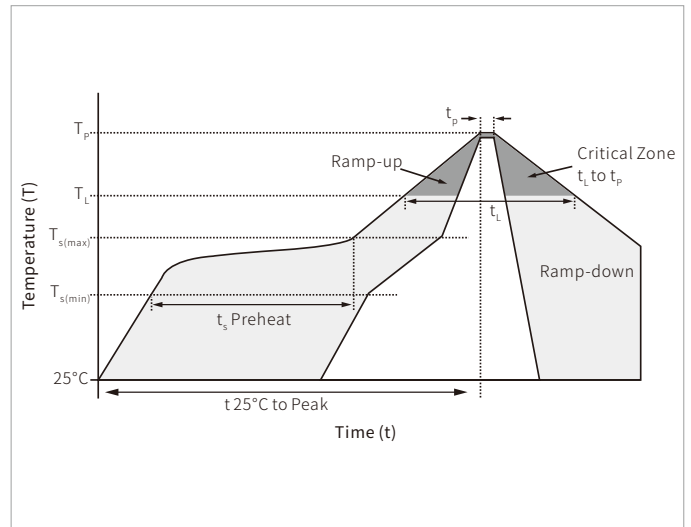


Fig. 4-typical Reverse Leakage Characteristics

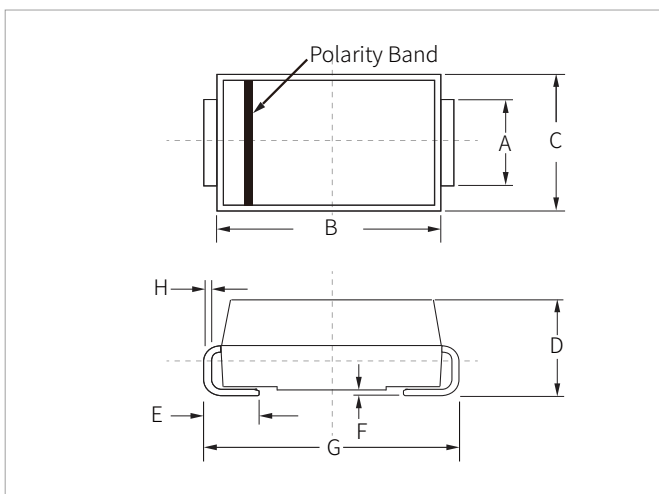


## SOLDERING PARAMETERS

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) ( $t_s$ )	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

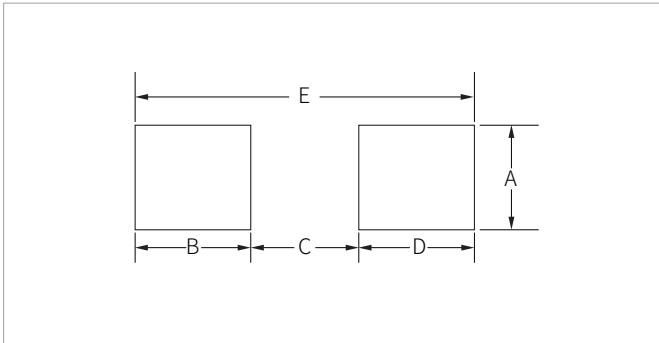


## DO-214AB(SMC) PACKAGE INFORMATION



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"

**Headquarters**

No.3387 Shendu Road  
Pujiang I&E Park  
Minhang Shanghai China  
201000

**Hotline**

400-021-5756

**Web**

<https://www.semiware.com>

**Sales Center**

Tel: 86-21-3463-7458  
Email: [sales18@semiware.com](mailto:sales18@semiware.com)

**Customer Service**

Tel: 86-21-5484-1001  
Email: [sales17@semiware.com](mailto:sales17@semiware.com)

**Technical Support**

Tel: 86-21-3463-7654  
Email: [fae01@semiware.com](mailto:fae01@semiware.com)

**Complaint & Suggestions**

Tel: 86-21-3463-7172  
Ext: 8868  
Email: [cs03@semiware.com](mailto:cs03@semiware.com)

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