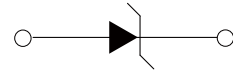


FEATURES

- | Low Power Loss High Efficiency
- | Ideal For Automated Placement
- | Guard Ring For Over-voltage Protection
- | High Surge Current Capability



DO-214AC(SMA)



Schematic Symbol

MECHANICAL DATA

- | Case: DO-214AC (SMA)
- | Polarity: Color Band Denotes Cathode End
- | Mounting Position: Any

APPROVALS

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

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	SS32A	SS33A	SS34A	SS35A	SS36A	SS39A	SS310A	SS315A	SS320A	Unit
Repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	200	V
Reverse voltage, total RMS Value	V _{RMS}	14	21	28	35	42	63	70	105	140	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	200	V
Maximum average forward rectified current at T _L =100°C	I _{F(AV)}	3.0									A
Surge Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	70									A
Forward voltage per diode ⁽¹⁾ I _F =3A, T _J =25°C	V _F	0.55		0.72		0.85		0.95			V
Maximum DC reverse current at rated DC blocking voltage	T _A = 25°C	0.5									mA
	T _A = 100°C	20									mA
Critical rate of rise of off-state voltage	dV/dt	10,000									V/μs
Operating junction temperature range	T _J	-55 to +150									°C
Storage temperature range	T _{STG}	-55 to +150									°C

Notes:

1. pulse test with PW=0.3ms
2. pulse test with PW=30ms

THERMAL PERFORMANCE

Parameter	Symbol	TYP.	Unit
Junction to Ambient Thermal Resistance	$R_{\theta JA}$	66	$^{\circ}\text{C}/\text{W}$
Junction to Ambient Thermal Resistance	$R_{\theta JL}$	25	$^{\circ}\text{C}/\text{W}$

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

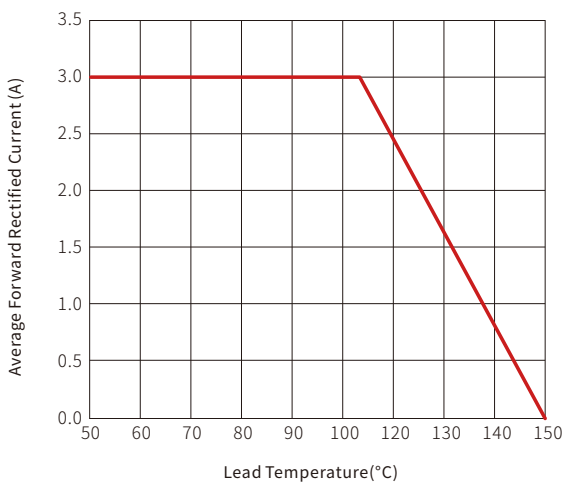


Fig. 2-Typical Junction Capacitance

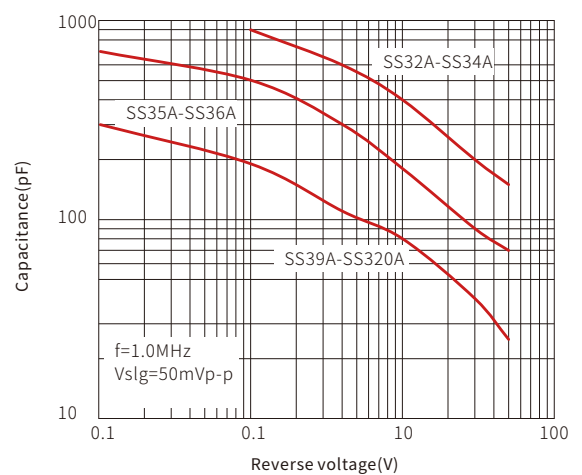


Fig. 3-Typical Reverse Characteristics

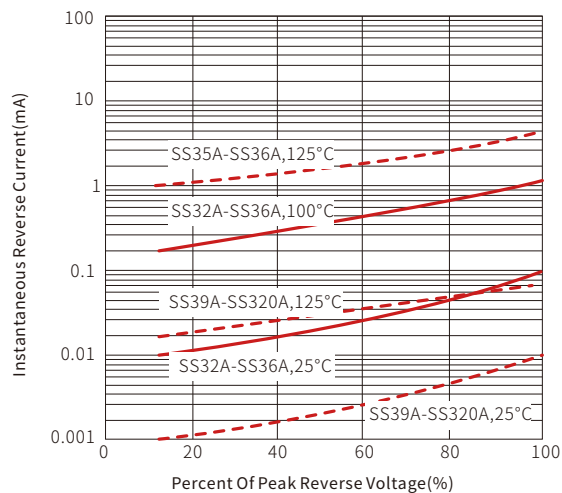


Fig. 4-Typical Forward Characteristics

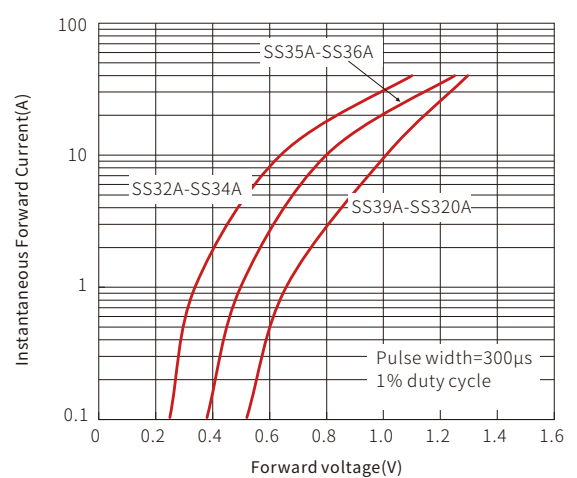
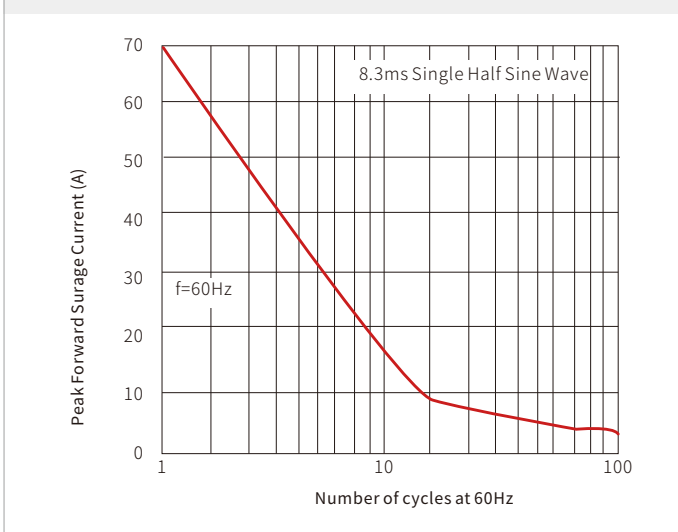
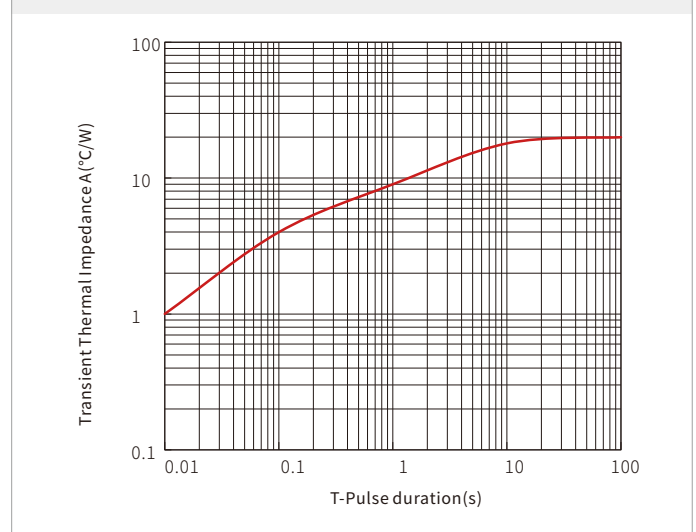
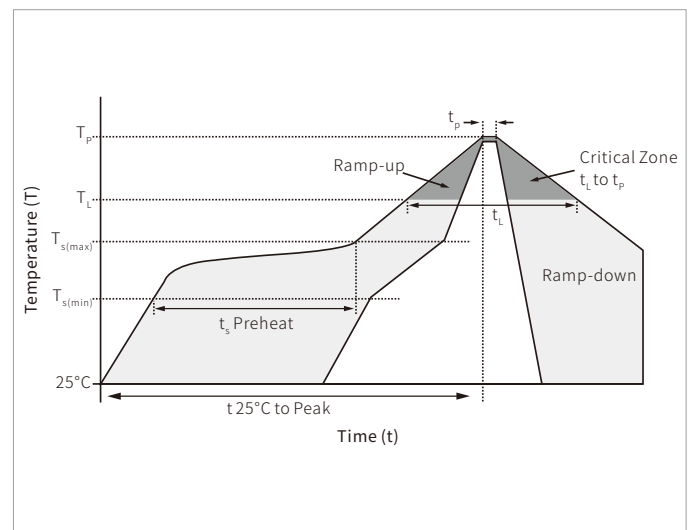


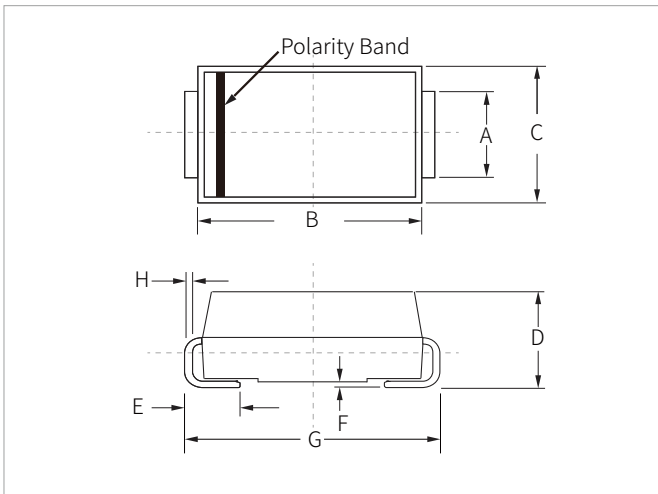
Fig. 5-Maximum Non-repetitive Forward Surge Current

Fig. 6-Typical Transient Thermal 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_i)	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

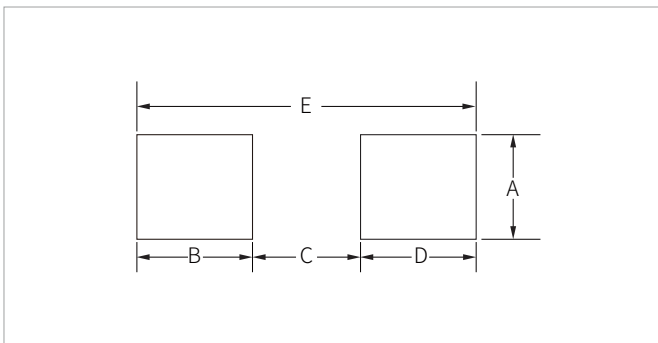


DO-214AC(SMA) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.60	0.047	0.063
B	4.20	4.60	0.165	0.181
C	2.40	2.80	0.094	0.110
D	2.00	2.40	0.079	0.094
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	4.85	5.25	0.191	0.207
H	0.15	0.30	0.006	0.012

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.80	-	0.090
D	1.45	-	0.057	-
E	5.28REF		0.208REF	

ORDERING INFORMATION

Part Number	Size	QTY/Reel	Reel Size
SS32A-320A	DO-214AC(SMA)	5000PCS	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

Customer Service

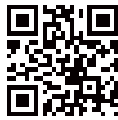
Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code

Website



Wechat

To find your local partner within Semiware' s global website: www.semiware.com

© 2022 Semiware Semiconductor Inc.

The content of this document has been carefully checked and understood. However, neither Semiware nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiware does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiware. Latest publications and a complete disclaimer can be downloaded from the Semiware website. All trademarks recognized.