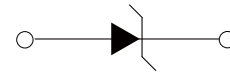


FEATURES

- | Low power loss high efficiency
- | Ideal for automated placement
- | Guard ring for over-voltage protection
- | High surge current capability
- | Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE2002/96/EC
- | Halogen-free according to IEC 61249-2-21



DO-214AC(SMA)



Schematic Symbol

APPLICATIONS

- | 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

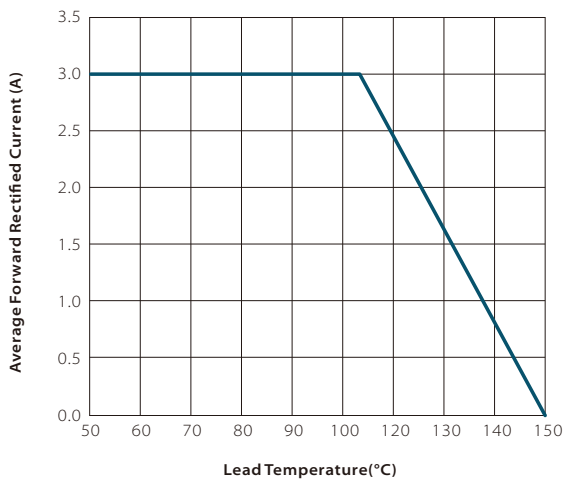
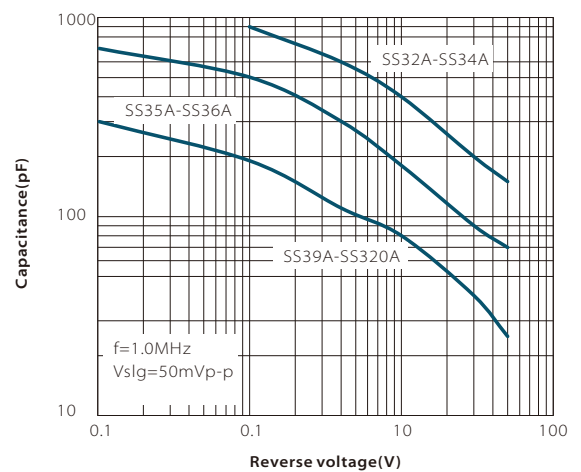
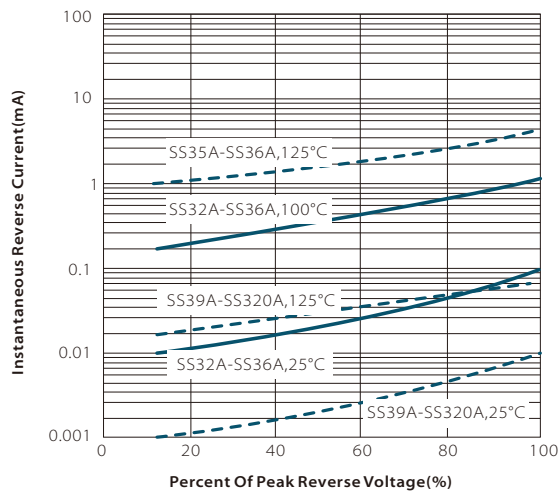
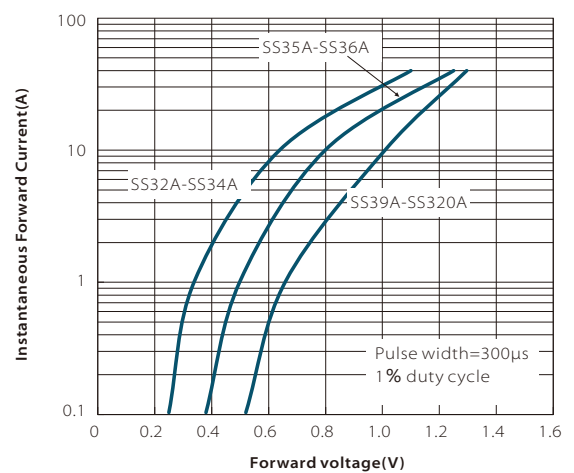
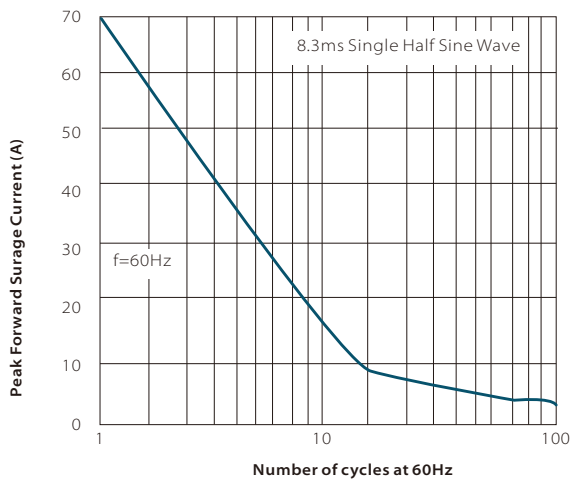
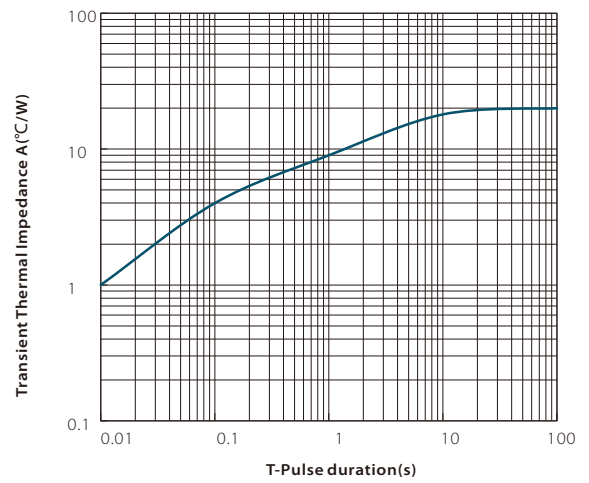
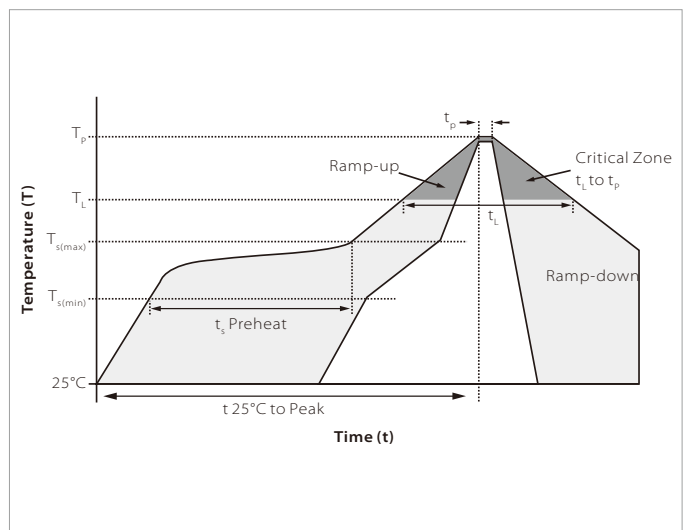
Fig. 1- Derating Curve Output Rectified Current

Fig. 2-Typical Junction Capacitance

Fig. 3-Typical Reverse Characteristics

Fig. 4-Typical Forward Characteristics


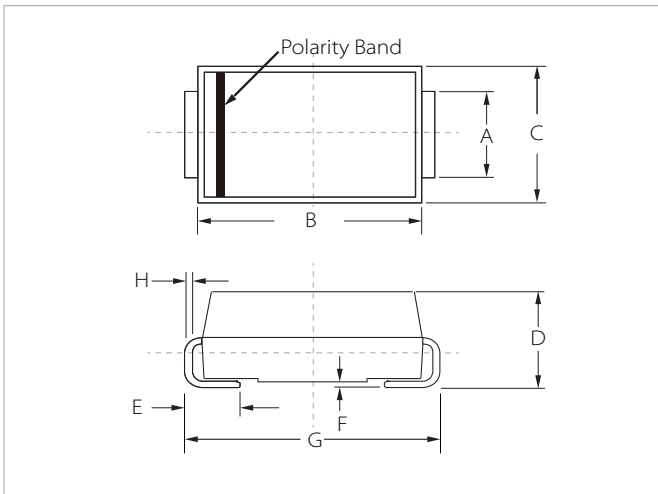
Fig. 5-Maximum Non-repetitive Forward Surge Current

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_r)	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

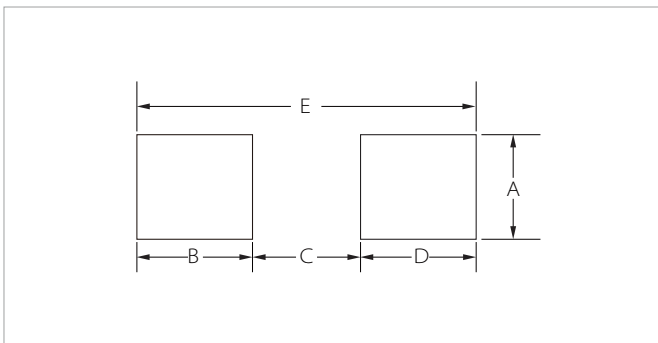


DO-214AC(SMA) PACKAGE INFORMATION



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	2.60	2.80	0.102	0.110
D	2.10	2.40	0.083	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"

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