

FEATURES

- | For Surface Mounted Applications
- | Built-in Strain Relief, ideal For Automated Placement
- | Low Reverse Leakage
- | High Forward Surge Current Capability



DO-214AC(SMA)



Schematic Symbol

MECHANICAL DATA

- | 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 ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	SS54AL	SS545AL	SS55AL	SS56AL	SS58AL	SS510AL	Unit
Marking		SS54L	SS545L	SS55L	SS56L	SS58L	SS510L	
Repetitive Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	V
Reverse Voltage, total RMS Value	V_{RMS}	28	31.5	35	42	56	70	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	V
Maximum Average Forward Rectified Current at $T_L=100^{\circ}\text{C}$	$I_{F(AV)}$	5.0						A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	I_{FSM}	120.0						A
Maximum Instantaneous Forward Voltage at 5.0A	V_F	0.48		0.55		0.70		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$			0.5		0.2		mA
	$T_A=125^{\circ}\text{C}$			50		20		mA
Typical Thermal Resistance	$R_{\theta JA}$	80						$^{\circ}\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150						$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150						$^{\circ}\text{C}$

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

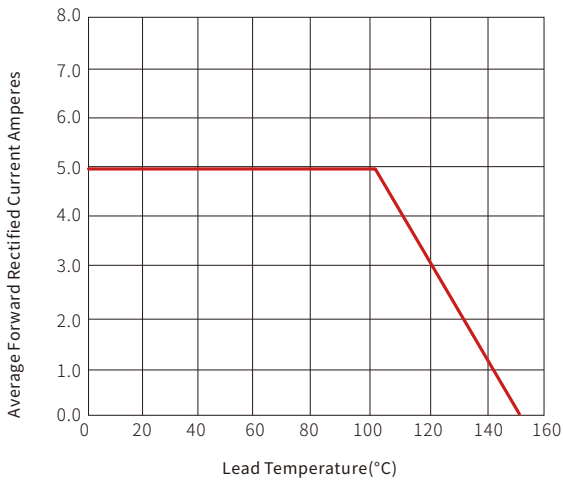


Fig. 2- Maximum Non-Repetitive Peak Forward Surge Current Perleg

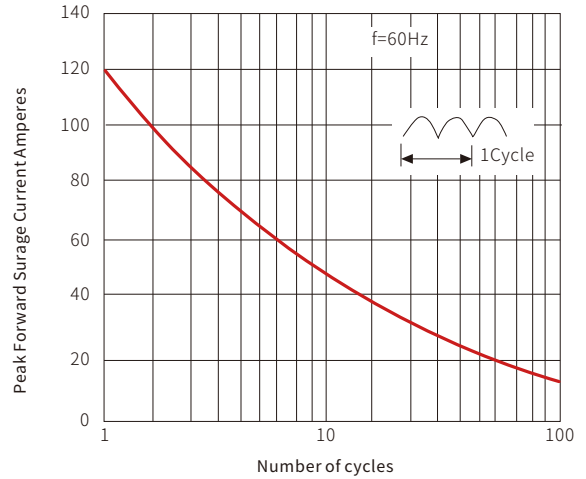


Fig. 3- Typical Forward Voltage Characteristics

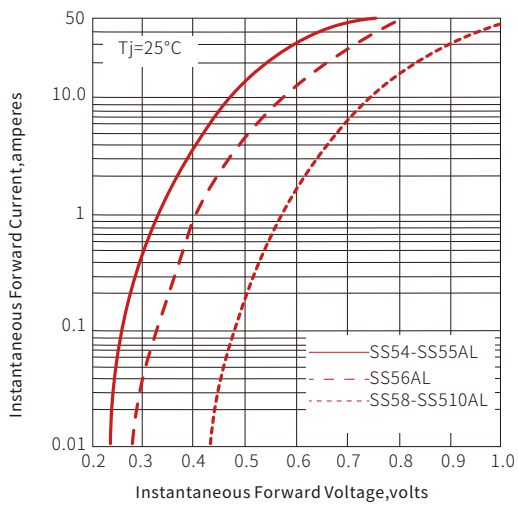
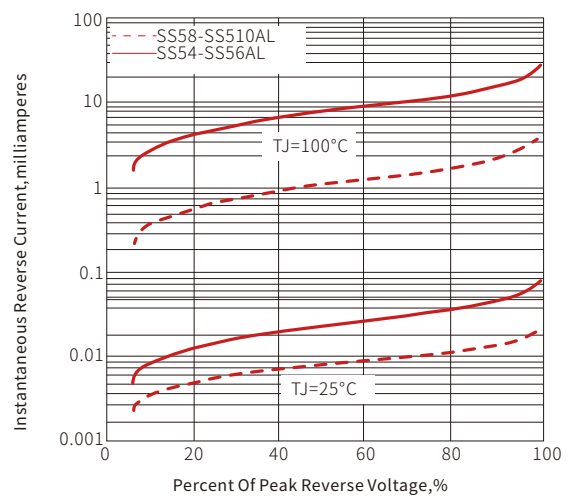
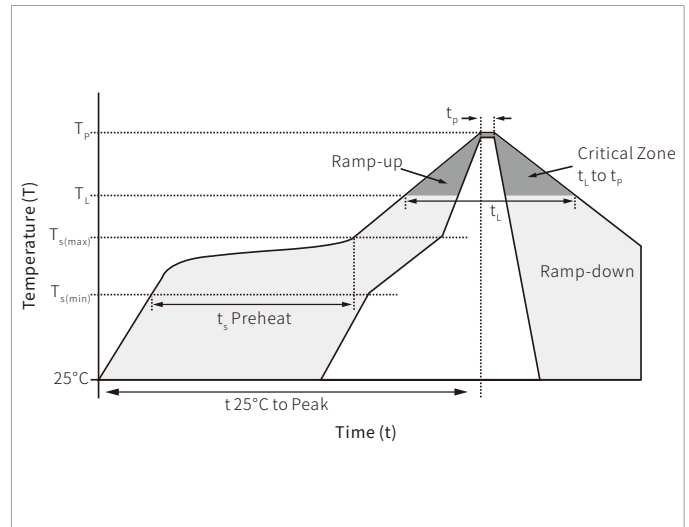


Fig. 4- Typical Reverse Leakage Characteristics

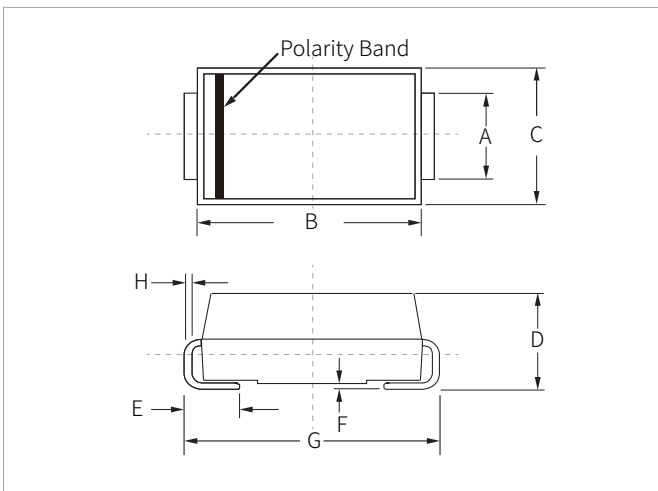


SOLDERING PARAMETERS

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_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

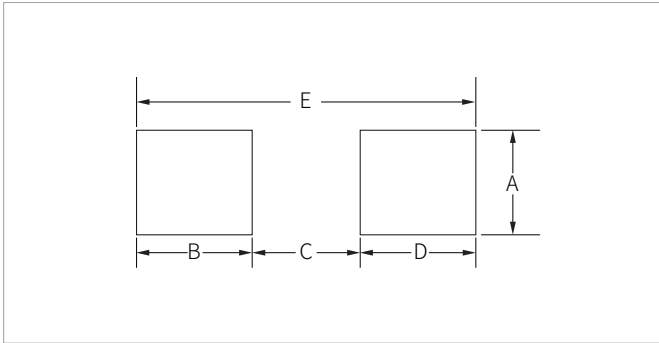


DO-214AC(SMA) PACKAGE INFORMATION



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
SS54AL-SS510AL	DO-214AC(SMA)	5000PCS	13"

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By QR Code

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