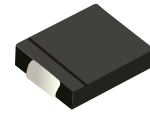


FEATURES

- | Guardring For Overvoltage Protection
- | Low Power Losses
- | Extremely Fast Switching
- | High Forward Surge Capability
- | High Frequency Operation
- | Meet AEC-Q101 Requirements



DO-214AB(SMC)



Schematic Symbol

MECHANICAL DATA

- | Case : Molded Plastic Body
- | Polarity : Polarity Symbol Marking On Body
- | Mounting Position : Any

APPROVALS

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

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	SS 32CQ	SS 33CQ	SS 34CQ	SS 35CQ	SS 36CQ	SS 38CQ	SS 310CQ	SS 315CQ	SS 320CQ	Unit	
Marking		SS32Q	SS33Q	SS34Q	SS35Q	SS36Q	SS38Q	SS310Q	SS315Q	SS320Q		
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	50	60	80	100	150	200	V	
Average Rectified Output Current @60Hz sine wave, Resistance load, T _a (FIG.1)	I _O	3.0									A	
Forward Surge Current (Non-Repetitive) @ 60Hz Half-Sine Wave, 1 cycle, T _a =25°C	I _{FSM}	70									A	
Maximum Instantaneous Forward Voltage Drop Per Diode I _{FM} =3.0A	V _F	0.55			0.70		0.85		0.95		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _A =25°C					0.1					mA
		T _A =100°C					5.0					mA
Thermal Resistance Junction to Ambient	R _{θJ-A}	55 ⁽¹⁾									°C/W	
Thermal Resistance Junction to Lead	R _{θJ-L}	17 ⁽¹⁾									°C/W	
Operating Junction Temperature Range	T _J	-55 to +150					-55 to +175					°C
Storage Temperature Range	T _{STG}	-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_o-T_a Curve

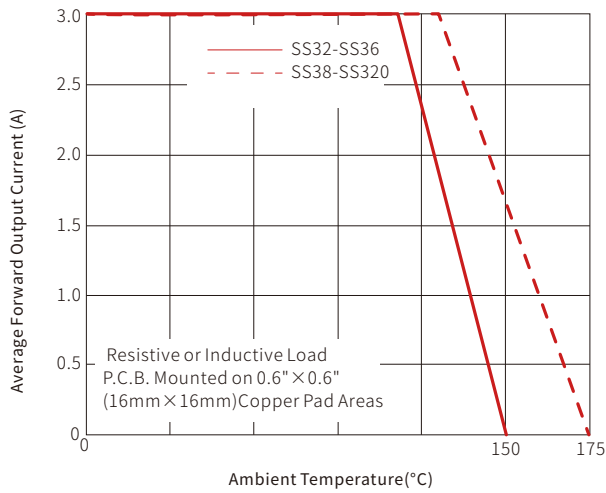


Fig. 2-Forward Surge Current Capability

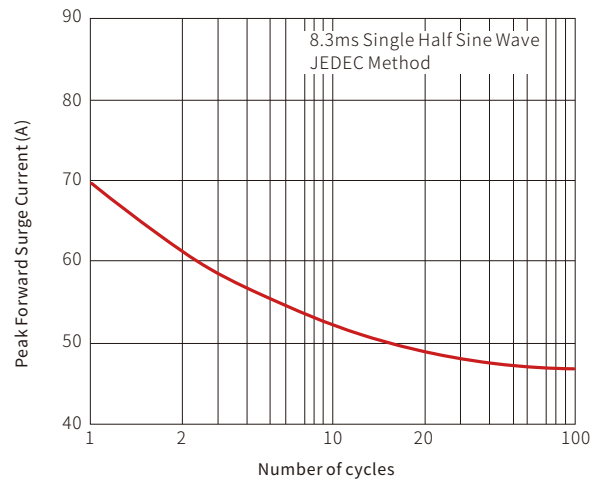


Fig. 3-Typical Forward Voltage Characteristics

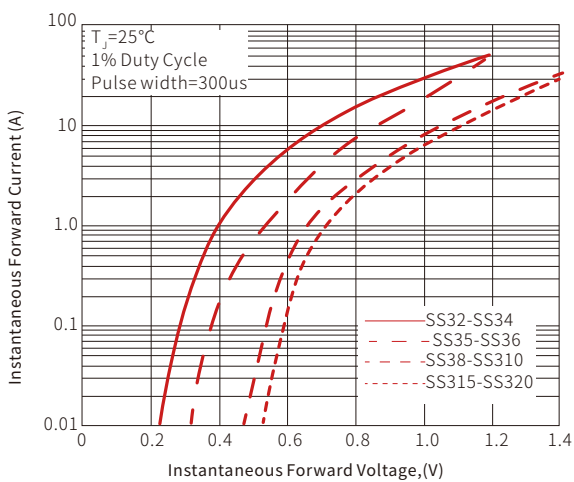
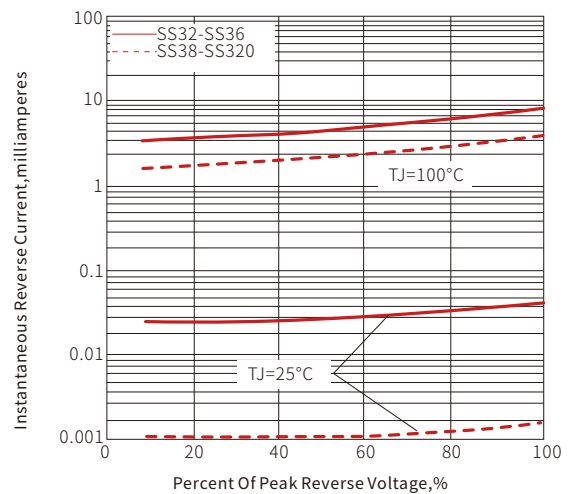
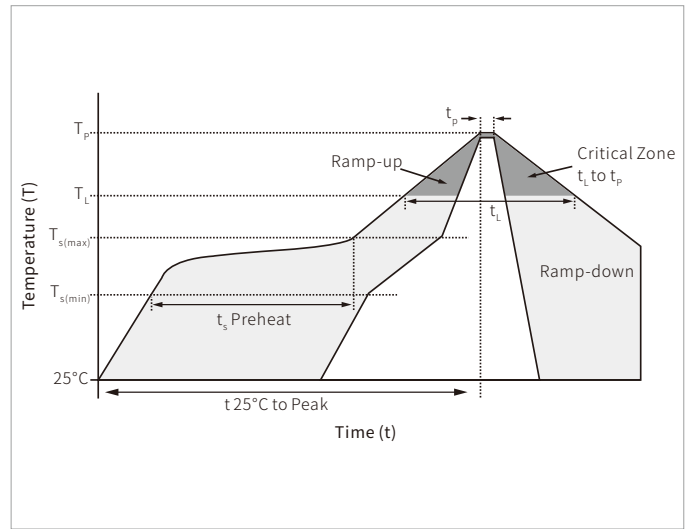


Fig. 4-Typical Reverse Leakage Characteristics

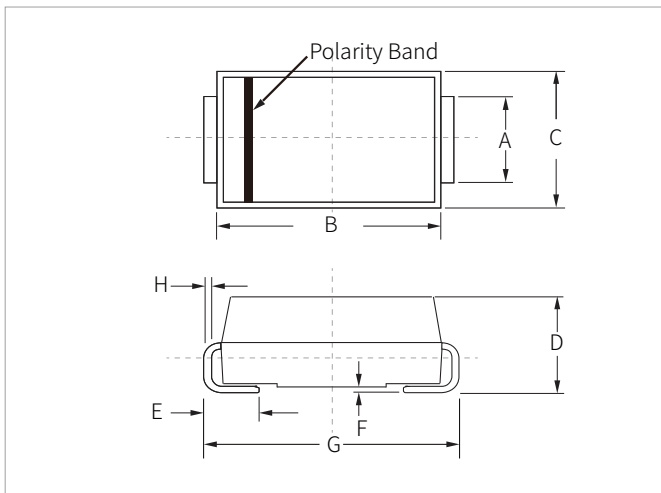


SOLDERING PARAMETERS

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

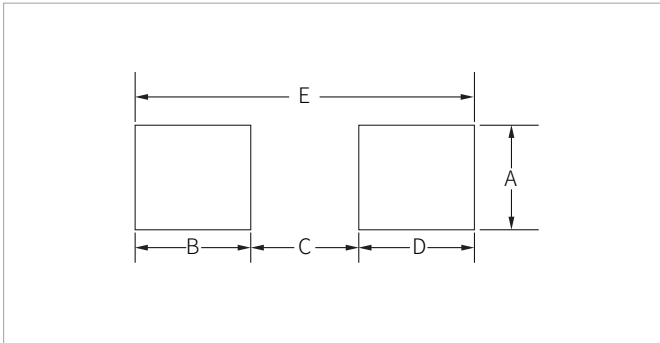


DO-214AB(SMC) PACKAGE INFORMATION



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
SS32CQ-SS320CQ	DO-214AB(SMC)	3000PCS	13"

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By QR Code

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