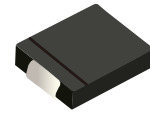
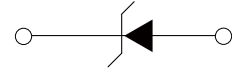


FEATURES

- | Guardring for overvoltage protection
- | Low power loss
- | Extremely fast switching
- | High forward surge capability
- | High frequency operation



DO-214AB(SMC)



Schematic Symbol

APPLICATIONS

- | 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	SS102C	SS103C	SS104C	SS105C	SS106C	SS108C	SS1010C	SS1015C	SS1020C	Unit	
Marking		SS102	SS103	SS104	SS105	SS106	SS108	SS1010	SS1015	SS1020		
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V	
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I _O	10.0									A	
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave, 1 cycle, T _a =25 °C	I _{FSM}	120.0									A	
Maximum instantaneous forward voltage drop per diode I _{FM} =10.0A	V _F	0.55			0.70		0.85		0.95		V	
Maximum DC reverse current at rated DC blocking voltage	T _A = 25°C	0.2					0.1					mA
	T _A = 100°C	20					5.0					mA
Typical thermal resistance	R _{θJ-A}	65 ⁽¹⁾										°C/W
Typical thermal resistance	R _{θJ-L}	8 ⁽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_L Curve

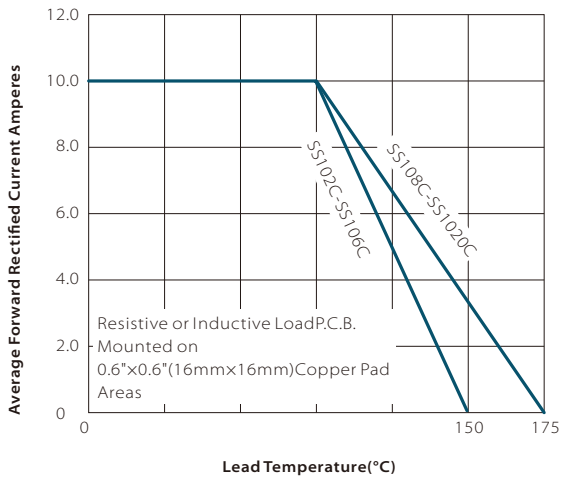


Fig. 2-Forward Surge Current Capability

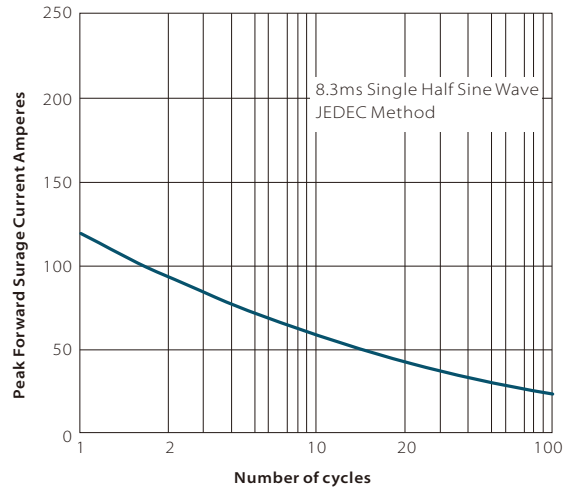


Fig. 3-Forward Voltage

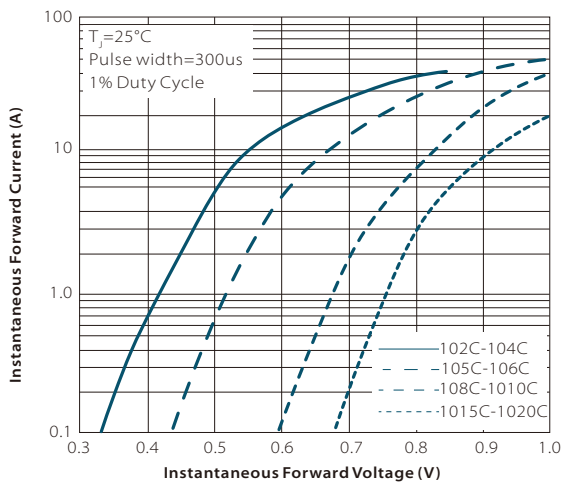
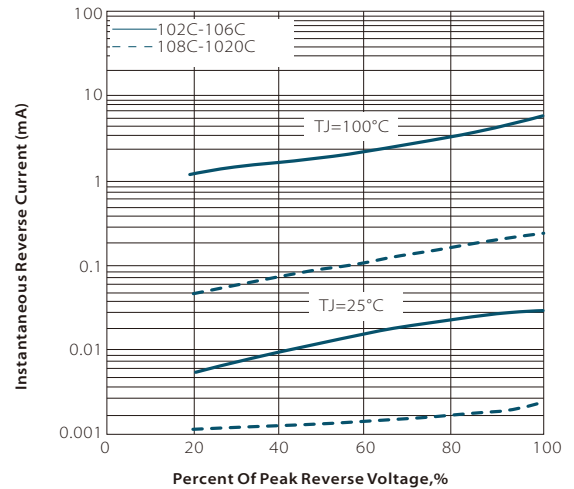
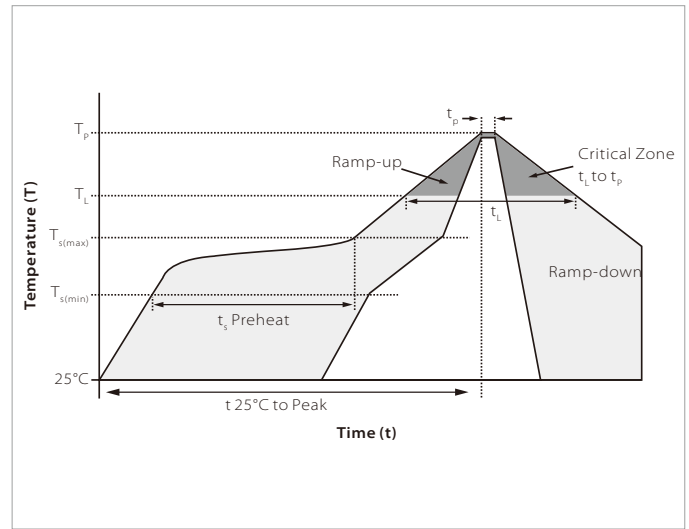


Fig. 4-Typical Reverse Characteristics

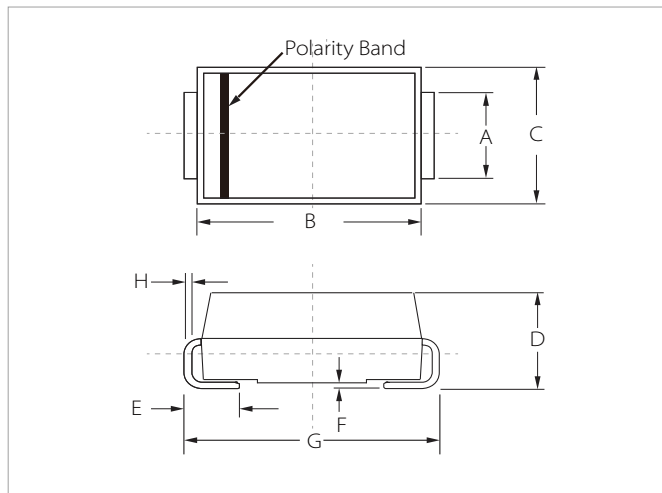


SOLDERING PARAMETERS

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_p)	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

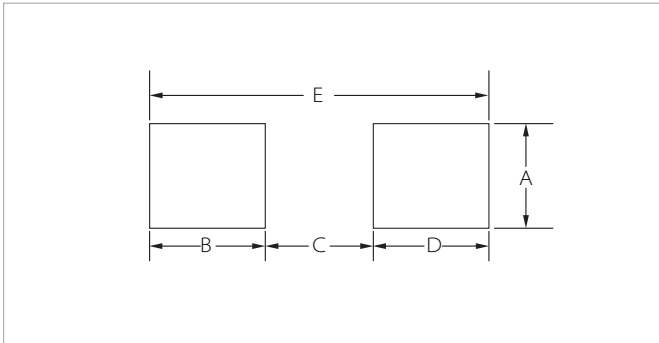


DO-214AB(SMC) PACKAGE INFORMATION



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
SS102C-SS1020C	DO-214AB(SMC)	3000PCS	13"

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