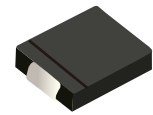
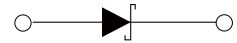


FEATURES

- Low Reverse Leakage
- High Forward Surge Capability
- High Reliability
- Lead And Body According With Rohs Standard
- Meet AEC-Q101 Requirements



DO-214AB(SMC)



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	SS 82CQ	SS 83CQ	SS 84CQ	SS 85CQ	SS 86CQ	SS 88CQ	SS 810CQ	SS 815CQ	SS 820CQ	Unit
Marking			SS82	SS83	SS84	SS85	SS86	SS88	SS810	SS815	SS820	
Repetitive Peak Reverse Voltage		V _{RRM}	20	30	40	50	60	80	100	150	200	V
Reverse Voltage,total RMS Value		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
Maximum Average Forward Rectified Current		I _{F(AV)} ¹⁾	8.0									A
Non-Repetitive Peak Forward Surge Current 8.3 ms Singlehalf Sine-Wave		I _{FSM}	200									A
Maximum Forward Voltage @I _F =8.0A		V _F	0.55			0.75		0.90		0.95		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _A =25°C	I _R	0.5					0.1				mA
	T _A =100°C		20					10				mA
Typical Thermal Resistance Note 1		R _{θJA}	60			75		90				°C/W
		R _{θJI}	12			16		20				°C/W
Type Junction Capacitance V _R =4.0V,f=1MHz		C _J	400									pF
Operating Junction Temperature Range		T _J	-55 to +150									°C
Storage Temperature Range		T _{STG}	-55 to +150									°C

Note1): Thermal resistance from junction to ambient, PCB mounted

CHARACTERISTIC CURVES

Fig. 1- Typical Forward Characteristic

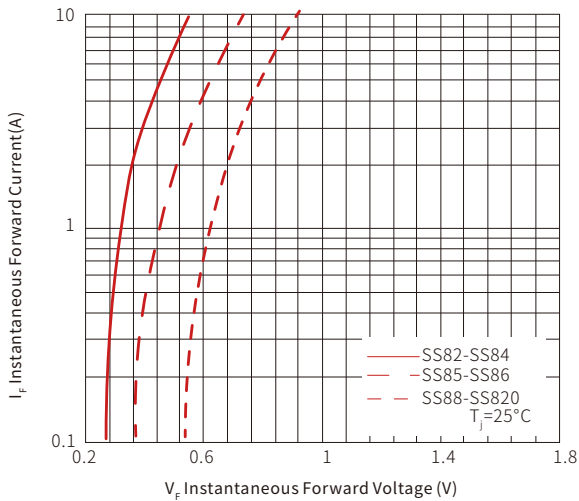


Fig. 2-Forward Current Derating Curve

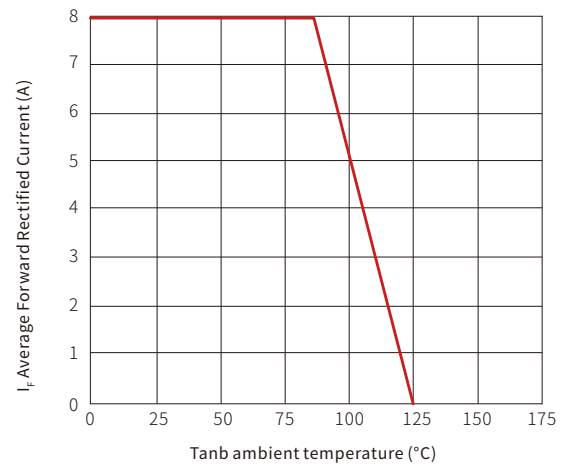


Fig. 3-Maximum Non Repetitive Peak Forward Surge Current

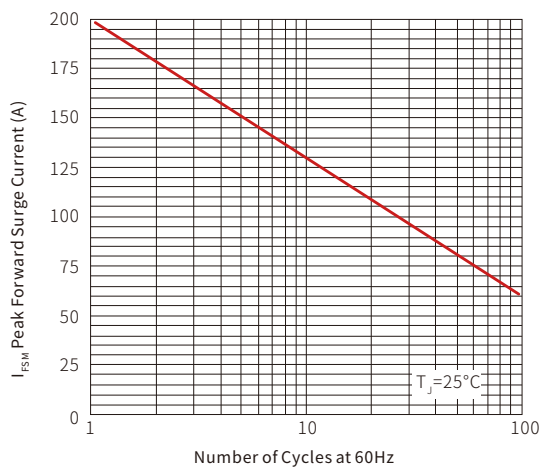
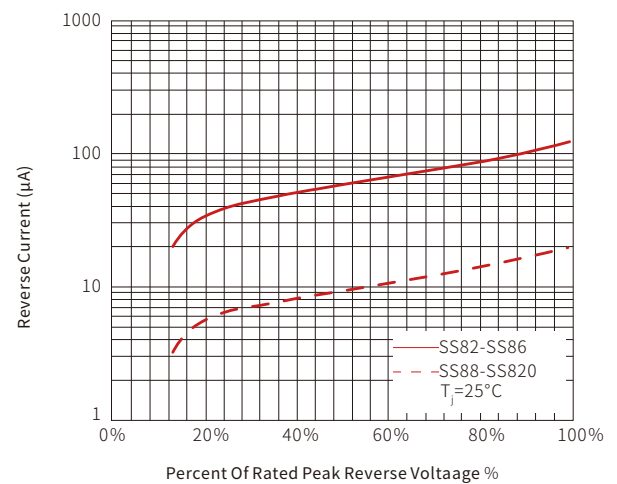
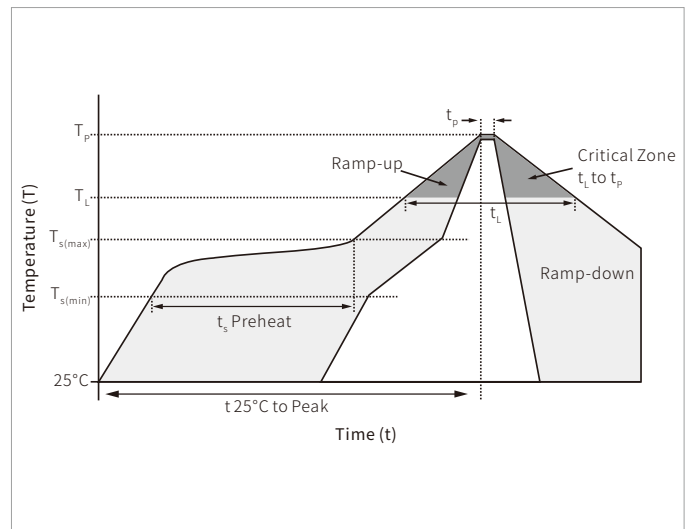


Fig. 4-Typical Reverse Characteristics

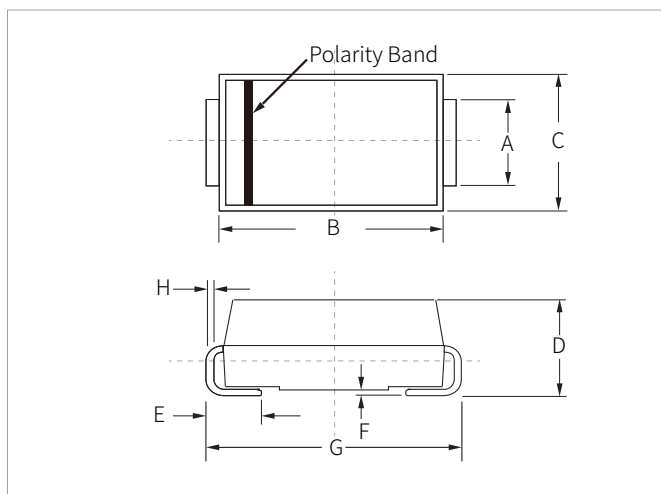


SOLDERING PARAMETERS

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_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

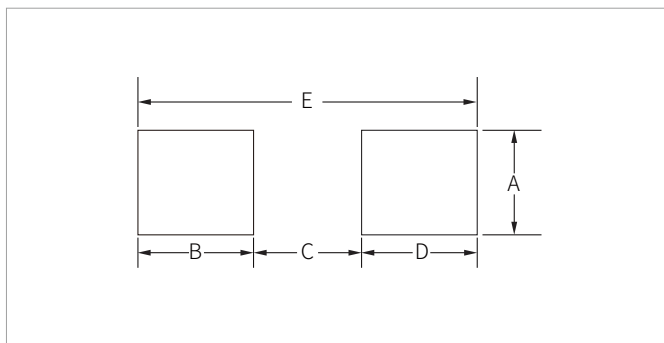


DO-214AB(SMC) PACKAGE INFORMATION



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
SS82CQ-SS820CQ	DO-214AB(SMC)	3000PCS	13"

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By QR Code

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