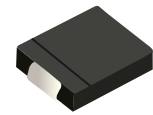


FEATURES

- Low Leakage Current
- High Efficiency
- Heatsink Design
- Moisture Sensitivity: Level 1, Per J-STD-020
- Low Forward Voltage Drop



DO-214AB(SMC)



Marking

MECHANICAL DATA

- Case: DO-214AB(SMC)
- Molding Compound Meets UL 94 V-0 Flammability



Schematic Symbol

APPROVALS

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

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	100	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	5	A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load Per Diode		I_{FSM}	120	A
Maximum Instantaneous Forward Voltage Per Diode $I_F=5\text{A}$ (Note 1)	$T_J=25^{\circ}\text{C}$	V_F	0.60	V
	$T_J=125^{\circ}\text{C}$		0.55	V
Maximum Instantaneous Reverse Current Per Diode at Rated Reverse Voltage	$T_J=25^{\circ}\text{C}$	I_R	30	μA
	$T_J=125^{\circ}\text{C}$		0.5	mA
Typical Thermal Resistance		$R_{\theta JL}$	11	$^{\circ}\text{C/W}$
Operating Temperature Range		T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature Range		T_{STG}	-55 to 150	$^{\circ}\text{C}$

Note 1: Pulse Test with Pulse Width=300 μs , 1% Duty Cycle

CHARACTERISTIC CURVES

Fig.1 Forward Current Derating Curve

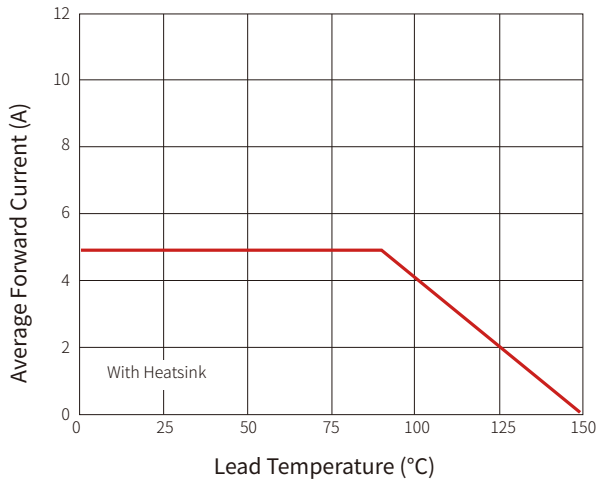


Fig.2 Typical Forward Characteristics

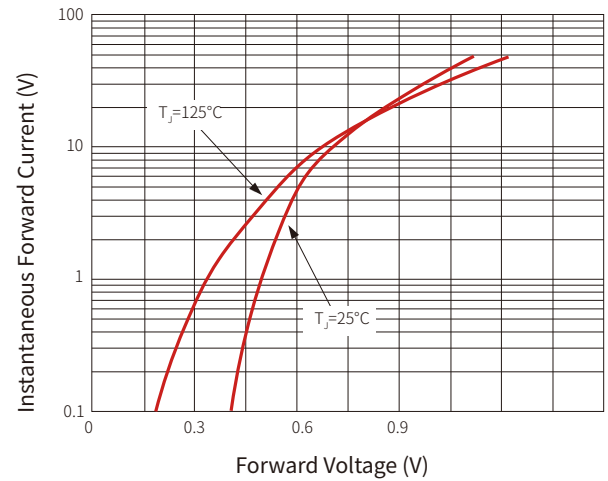


Fig.3 Maximum Non-repetitive Forward Surge Current

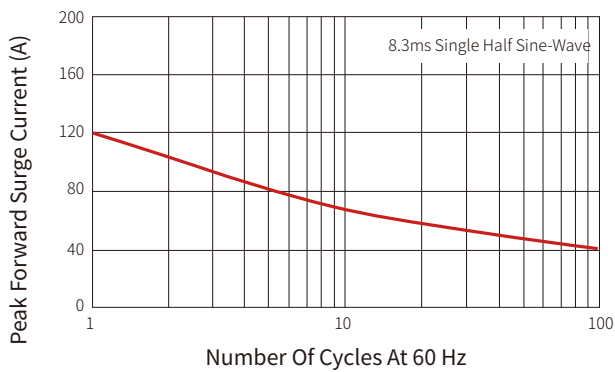


Fig.4 Typical Reverse Characteristics

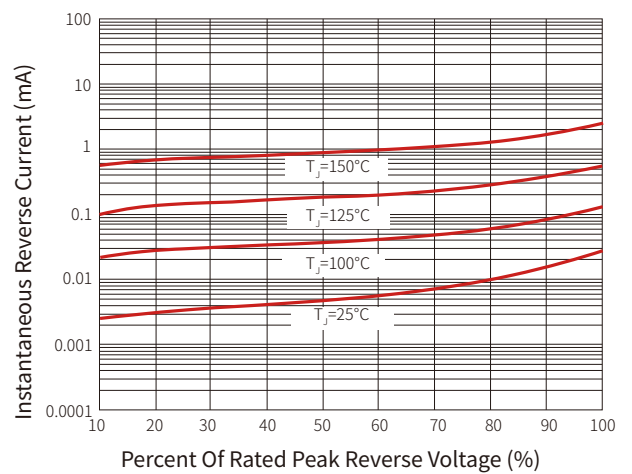
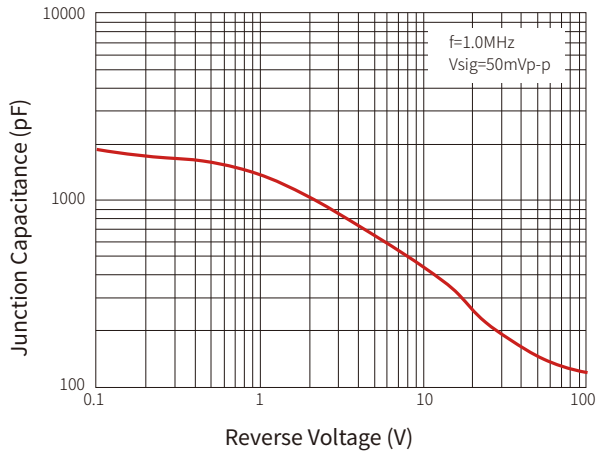
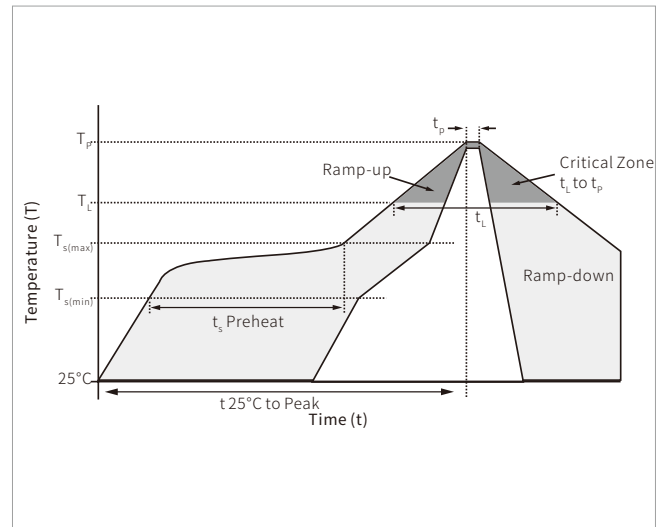


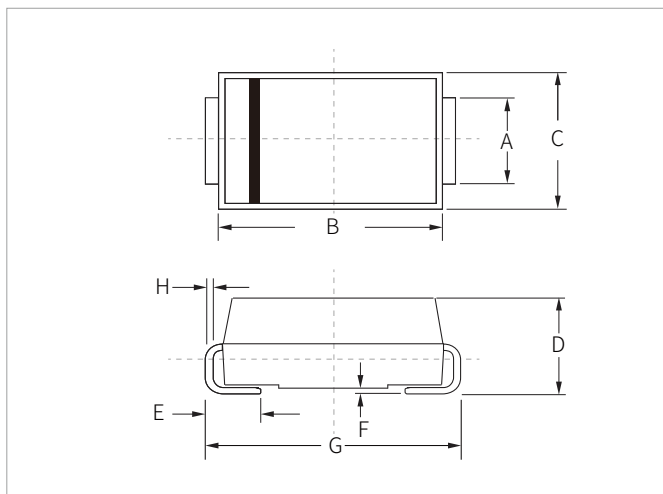
Fig.5 Typical Junction Capacitance


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

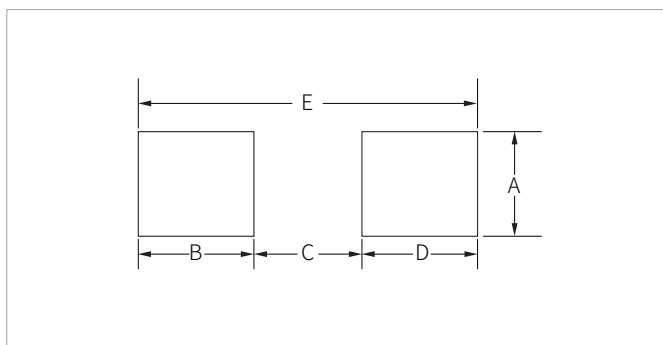


DO-214AB(SMC) PACKAGE INFORMATION



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
SS510CLF	DO-214AB(SMC)	3000PCS	13"

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By QR Code

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