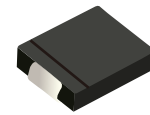


## FEATURES

- | Glass Passivated Chip Junction
- | Ideal For Automated Placement
- | Fast Switching For High Efficiency
- | High Surge Current Capability



DO-214AB(SMC)



Schematic Symbol

## APPLICATIONS

- | Switching Mode Power Supply (SMPS)
- | Adapters
- | Lighting Application
- | Converter

## APPROVALS

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

## MAXIMUM RATINGS AND CHARACTERISTICS (T<sub>A</sub>=25°C)

Parameter		Symbol	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	Unit
Marking			RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current		I <sub>F(AV)</sub>	3							A
Surge Peak Forward Current,8.3ms Single Half Sine-Wave Superimposed On Rated Load Per Diode		I <sub>FSM</sub>	100							
Forward Voltage Per Diode I <sub>F</sub> =3a,T <sub>J</sub> =25°C <sup>(1)</sup>		V <sub>F</sub>	1.3							V
Reverse Current @ Rated V <sub>R</sub> Per Diode <sup>(2)</sup>	T <sub>J</sub> =25°C	I <sub>R</sub>	10							μA
	T <sub>J</sub> =125°C		250							
Reverse Recovery Time I <sub>F</sub> =0.5A , I <sub>R</sub> =1.0A,I <sub>RR</sub> =0.25A		T <sub>rr</sub>	150				250	500		ns
Junction-to-Lead Thermal Resistance Per Diode		R <sub>θJL</sub>	15							°C/W
Junction-to-Ambient Thermal Resistance Per Diode		R <sub>θJA</sub>	50							°C/W
Operating Junction And Storage Temperature Range		T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150							°C

Note :

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

# CHARACTERISTIC CURVES

Fig. 1- Maximum Forward Current Derating Curve

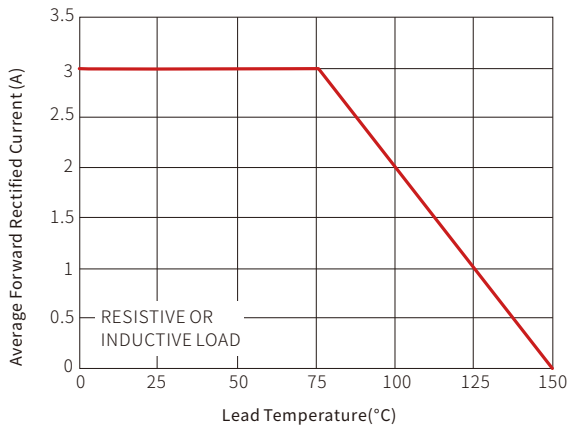


Fig. 2-Typical Reverse Characteristics

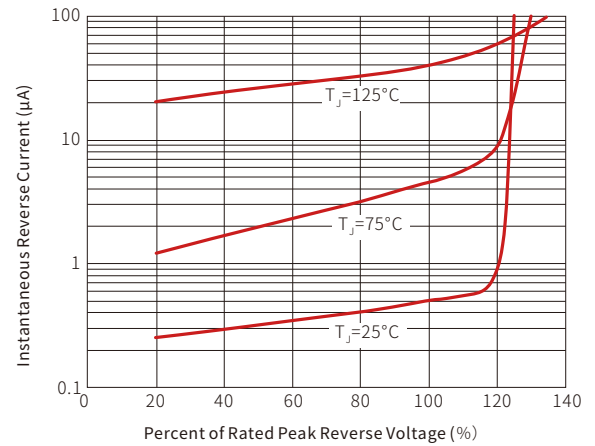


Fig. 3-Typical Junction Capacitance

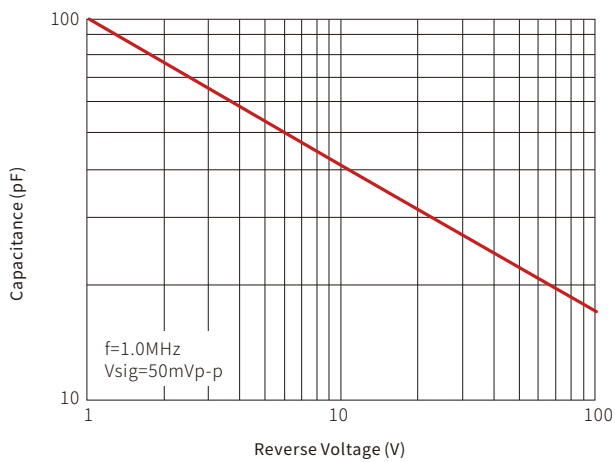
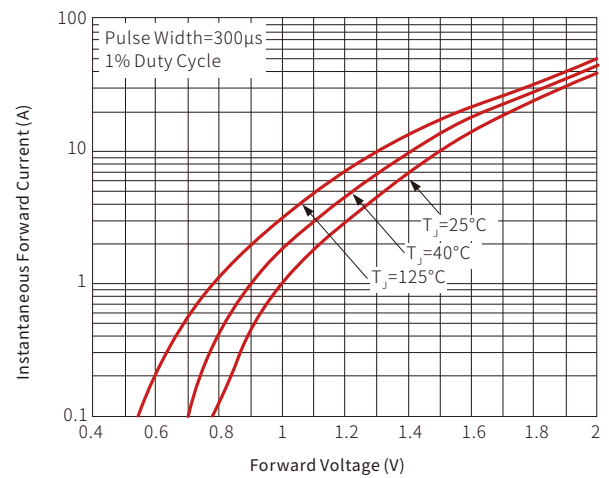
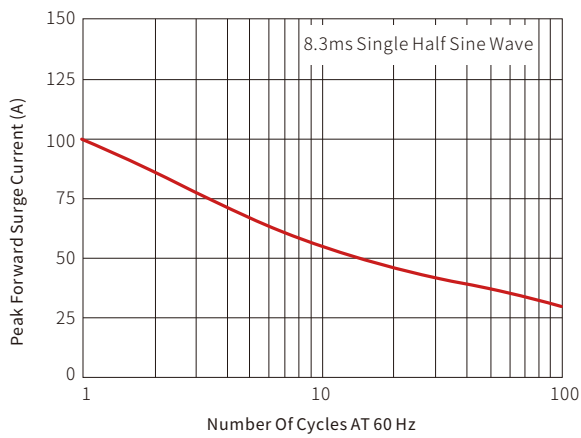
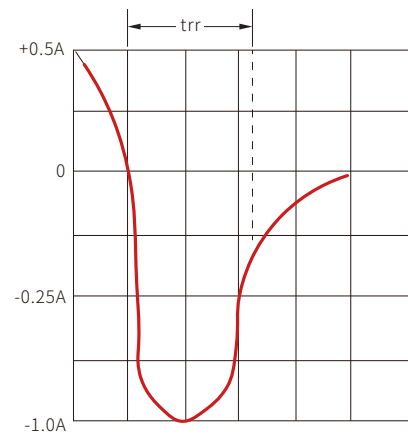
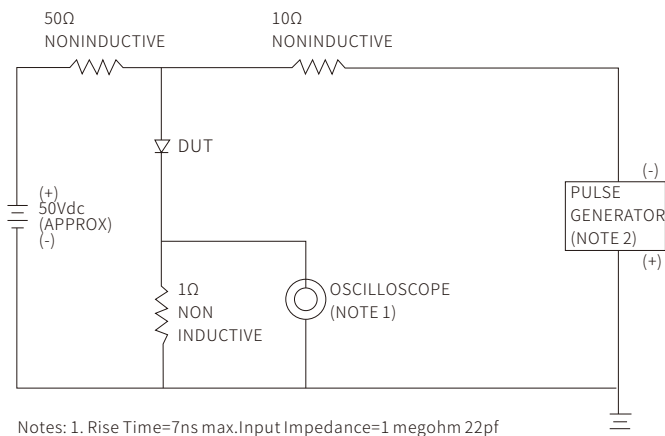


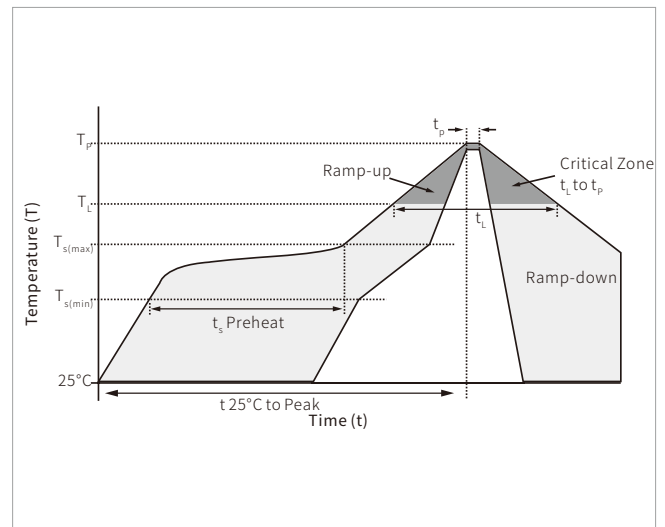
Fig. 4-Typical Instantaneous Forward Characteristics



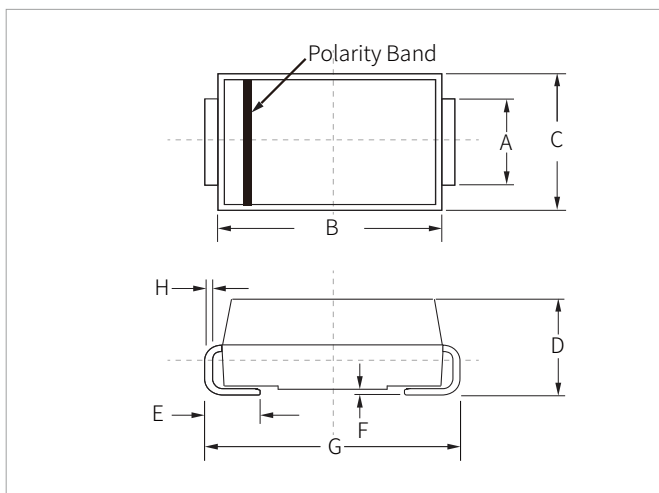
**Fig. 5- Maximum Non-repetitive Forward Surge Current**

**Fig. 6-Reverse Recovery Time Characteristic And Test Circuit Diagram**


## 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

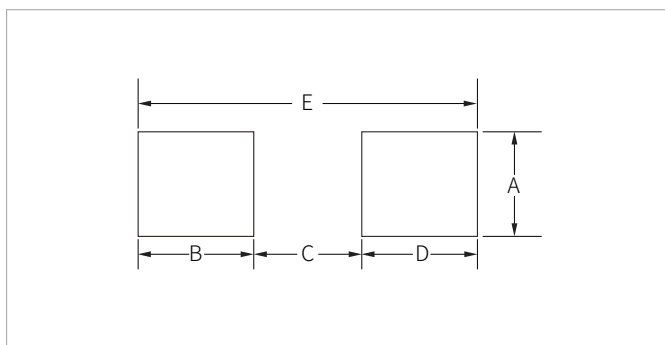


## DO-214AB(SMC) PACKAGE INFORMATION



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
RS3A -RS3M	DO-214AB(SMC)	3000PCS	13"

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Wechat

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