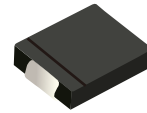


FEATURES

- | 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

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

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter		Symbol	GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M	Unit
Marking			GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M	
Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	V
Reverse Voltage, Total Rms Value		V _{R(RMS)}	35	70	140	280	420	560	700	
Maximum Dc Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	
Forward Current		I _{F(AV)}	5							A
Surge Peak Forward Current,8.3ms Single Half Sine-wave Superimposed On Rated Load Per Diode		I _{FSM}	100							
Forward Voltage Per Diode I _F =5a,t _J =25°C ⁽¹⁾		V _F	1.15							V
Reverse Current @ Rated V _r Per Diode ⁽²⁾	T _J =25°C	I _R	10							μA
	T _J =125°C		250							
Reverse Recovery Time I _F =0.5a , I _r =1.0a,i _{rr} =0.25a		T _{rr}	1500							ns
Junction-to-lead Thermal Resistance Per Diode		R _{θJL}	13							°C/W
Junction-to-ambient Thermal Resistance Per Diode		R _{θJA}	47							°C/W
Operating Junction And Storage Temperature Range		T _J ,T _{STG}	-55 to +150							°C

Note :

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

CHARACTERISTIC CURVES

Fig. 1- Forward Current Derating Curve

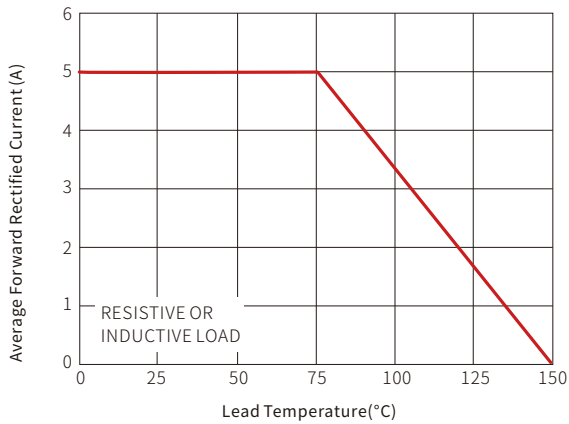


Fig. 2-Typical Reverse Characteristics

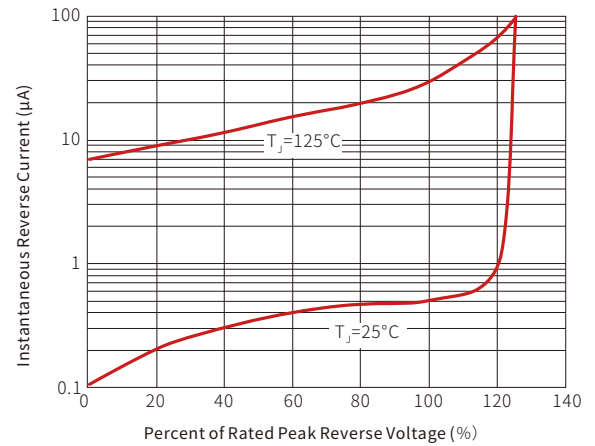


Fig. 3-Typical Junction Capacitance

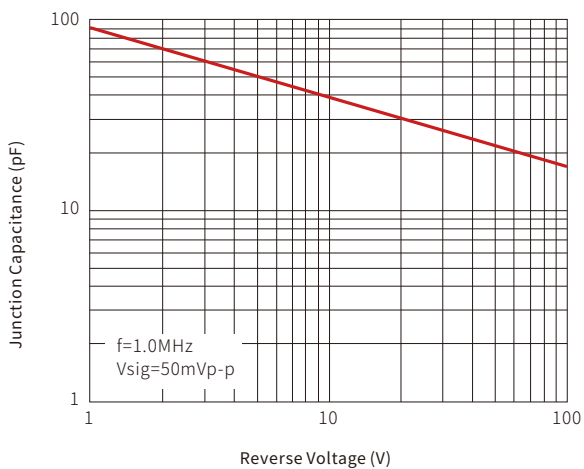


Fig. 4-Typical Forward Characteristics

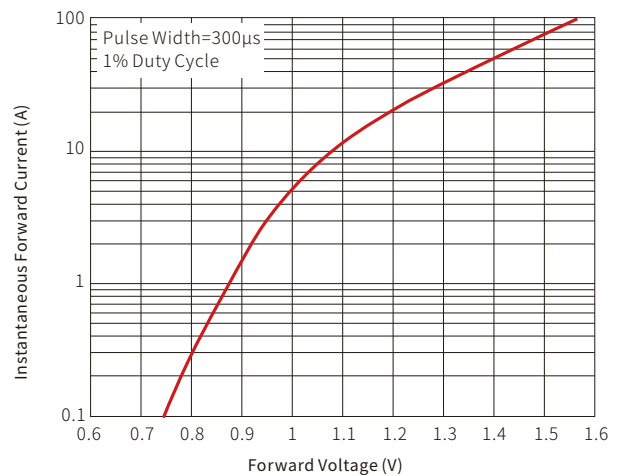
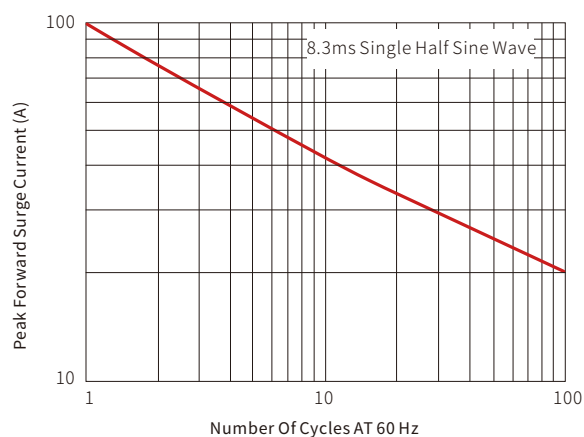
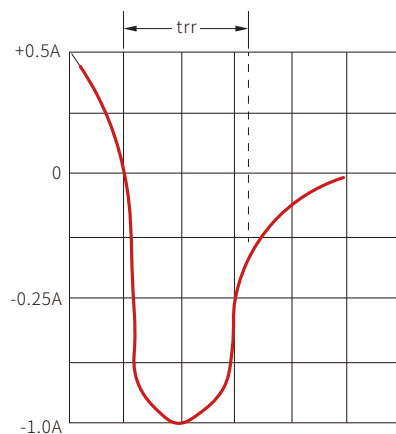
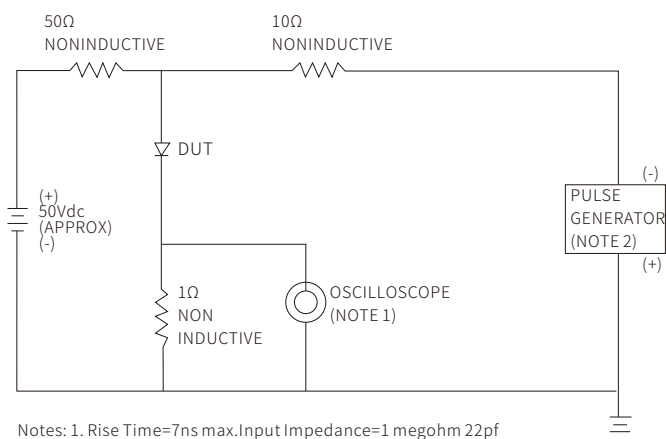
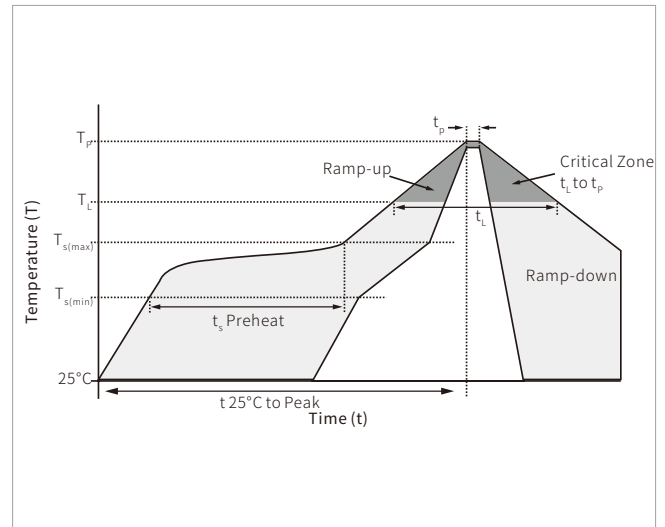


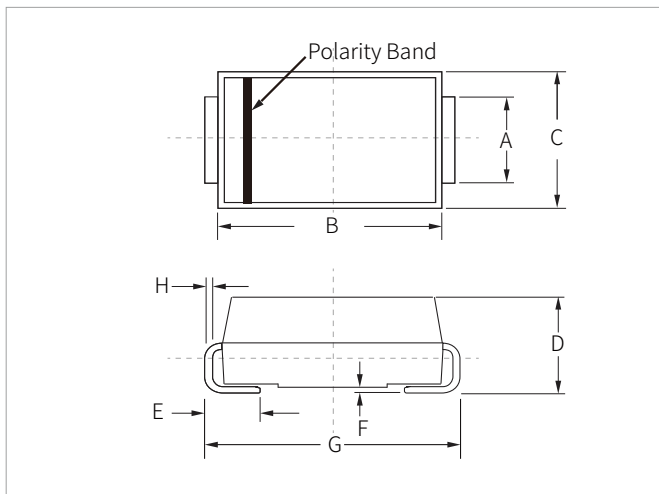
Fig. 5- Maximum Non-repetitive Forward Surge Current

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

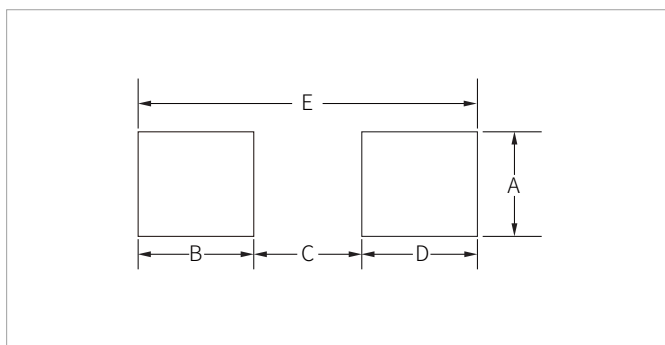


DO-214AB(SMC) PACKAGE INFORMATION



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
GS5A-GS5M	DO-214AB(SMC)	3000PCS	13"

Headquarters

No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service

Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support

Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions

Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

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