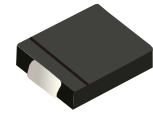


FEATURES

- | Low profile package
- | Idea for printed circuit board
- | Glass passivated Junction chip
- | High forward surge current capability



DO-214AB(SMC)



Schematic Symbol

MECHANICAL DATA

- | Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- | Moisture Sensitivity: Level 1 per J-STD-020
- | Polarity: Cathode line denotes the cathode end

APPROVALS

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

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	GS5AC	GS5BC	GS5DC	GS5GC	GS5JC	GS5KC	GS5MC	Unit
Marking		GS5A	GS5B	GS5D	GS5G	GS5J	GS5K	GS5M	
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Average Rectified Output Current @60hz Sine Wave, Resistance Load, TL (Fig.1)	I _O				5.0				A
Forward Surge Current (Non-repetitive) @60hz Half-sine Wave, 1 Cycle, T _J =25°C	I _{FSM}				150				
Forward Surge Current (Non-Repetitive) @1ms, Square Wave, 1 Cycle, T _J =25°C					300				
Maximum Instantaneous Forward Voltage I _{FM} =5.0A	V _F				1.1				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R				5				μA
					100				
Typical Junction Capacitance Measured at 1MHz And Applied Reverse Voltage Of 4.0 V.D.C	C _J				33				pF
Current Squared Time @1ms ≤ t ≤ 8.3ms T _J =25°C	I ² t				94				A ² s
Typical Thermal Resistance ⁽¹⁾	R _{θJ-A}				48				°C/W
	R _{θJ-L}				15				
	R _{θJ-C}				12				
Operating Junction And Storage Temperature Range	T _J , 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-TL Curve

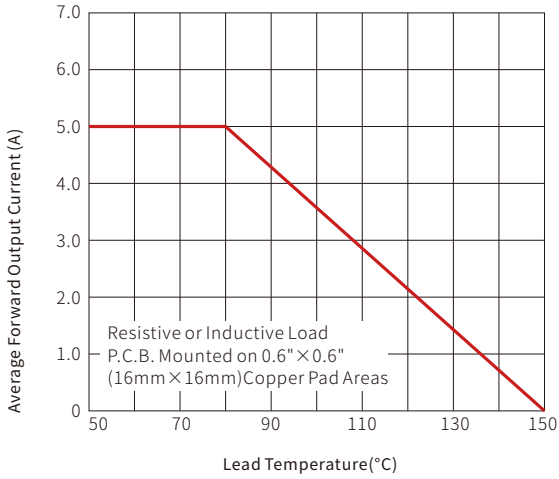


Fig. 2-Forward Surge Current Capability

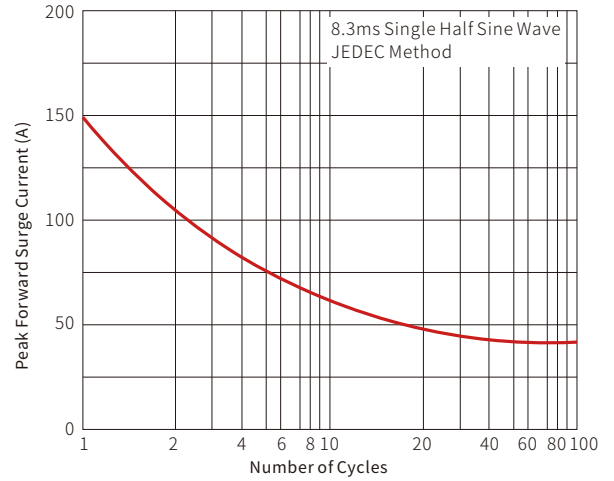


Fig. 3-Typical Forward Voltage

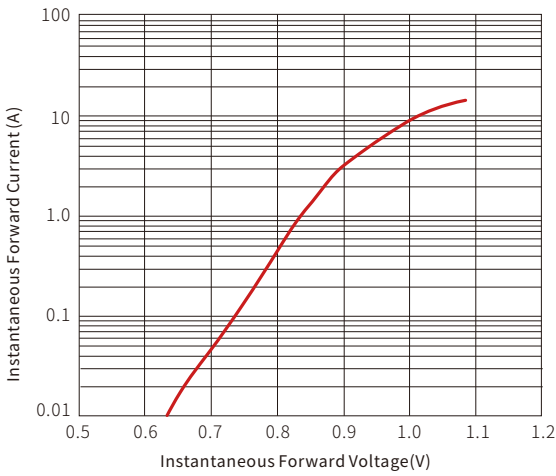
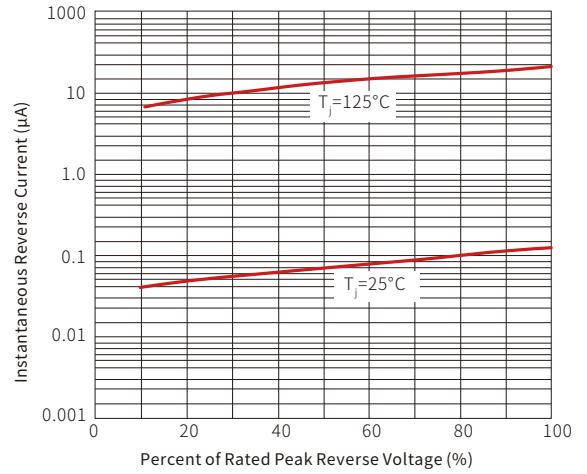
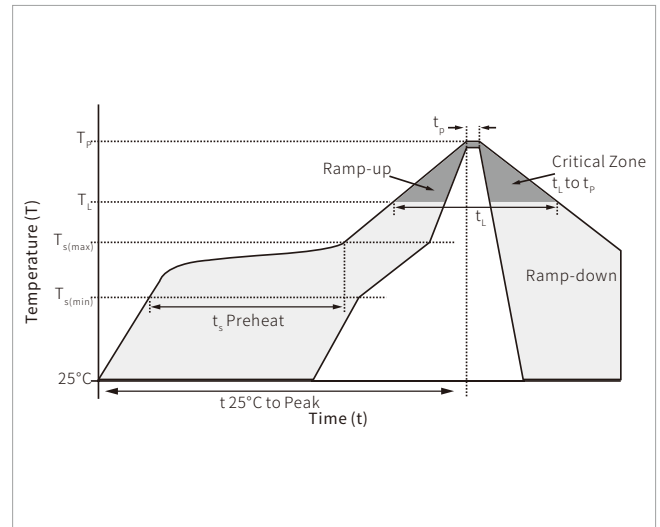


Fig. 4-Typical Reverse Characteristics

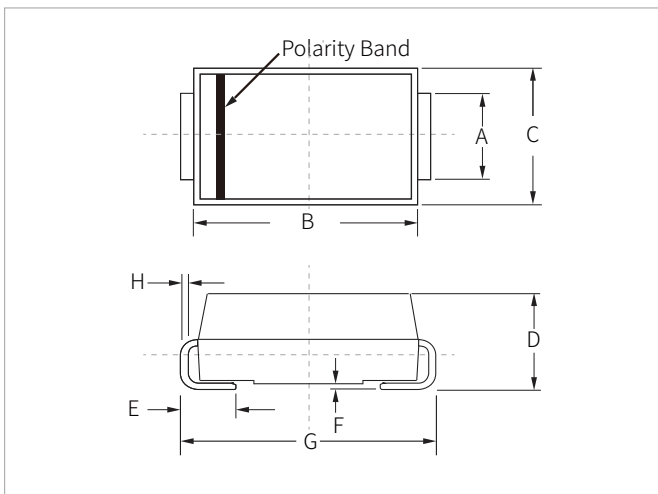


SOLDERING PARAMETERS

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_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

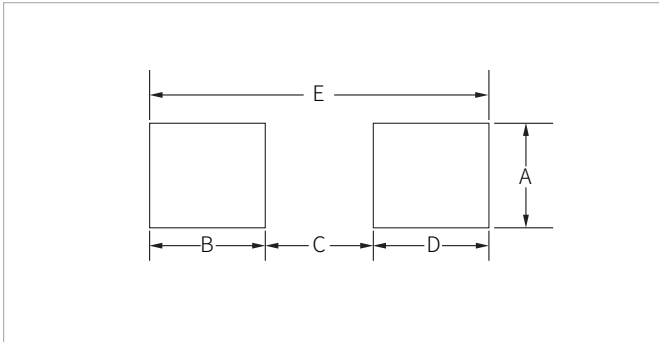


DO-214AB(SMC) PACKAGE INFORMATION



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
GS5AC-GS5MC	DO-214AB(SMC)	3000PCS	13"

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Hotline

400-021-5756

Web

<https://www.semiware.com>

Sales Center

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

Customer Service

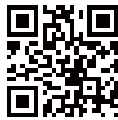
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By QR Code

Website



Wechat

To find your local partner within Semiware's global website: www.semiware.com

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