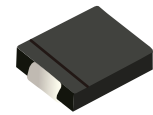
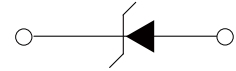


## FEATURES

- | 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

<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	GS3A	GS3B	GS3D	GS3G	GS3J	GS3K	GS3M	Unit
Marking		GS3A	GS3B	GS3D	GS3G	GS3J	GS3K	GS3M	
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	
Average Rectified Output Current @60hz Sine Wave, Resistance Load, TL (Fig.1)	I <sub>O</sub>				3.0				A
Forward Surge Current (Non-repetitive) @60hz Half-sine Wave, 1 Cycle, T <sub>J</sub> =25°C	I <sub>FSM</sub>				100				
Forward Surge Current (Non-Repetitive) @1ms, Square Wave, 1 Cycle, T <sub>J</sub> =25°C					200				
Maximum Instantaneous Forward Voltage I <sub>FM</sub> =3.0A	V <sub>F</sub>				1.1				V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>J</sub> =25°C				5				μA
	T <sub>J</sub> =125°C				100				
Typical Junction Capacitance Measured at 1MHz And Applied Reverse Voltage Of 4.0 V.D.C	C <sub>J</sub>				25				pF
Current Squared Time @1ms ≤ t ≤ 8.3ms T <sub>J</sub> =25°C	I <sup>2</sup> t				41.5				A <sup>2</sup> s
Typical Thermal Resistance <sup>(1)</sup>	R <sub>θJ-A</sub>				48				°C/W
	R <sub>θJ-L</sub>				15				
	R <sub>θJ-C</sub>				12				
Operating Junction And Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>				-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<sub>o</sub>-T<sub>L</sub> Curve

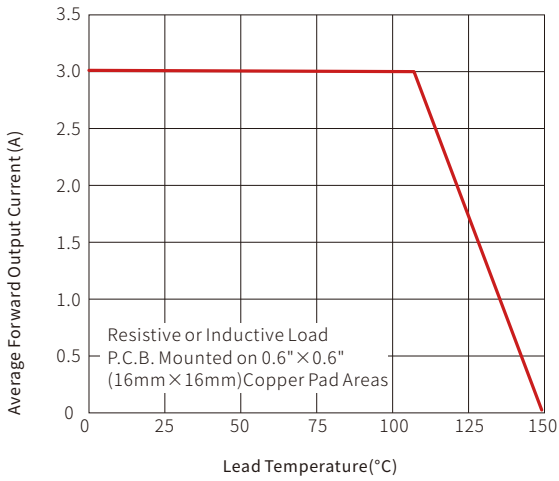


Fig. 2-Forward Surge Current Capability

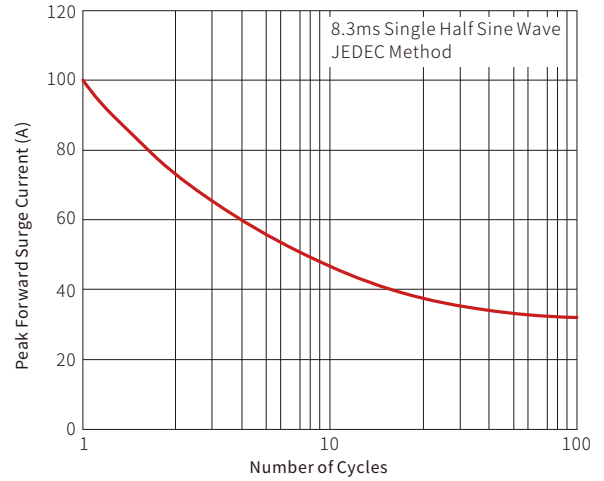


Fig. 3-Typical Forward Voltage

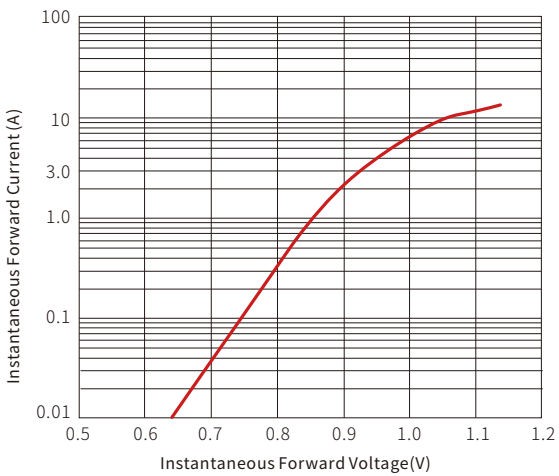
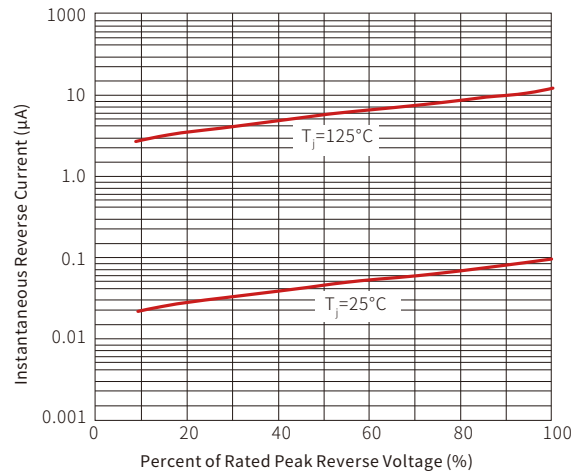
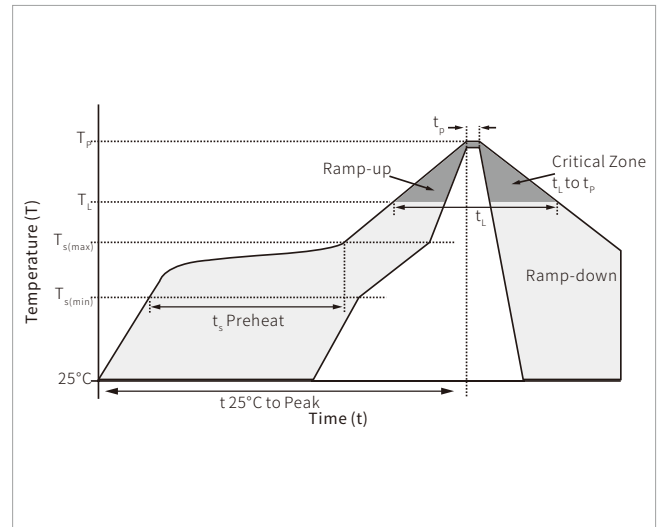


Fig. 4-Typical Reverse Characteristics

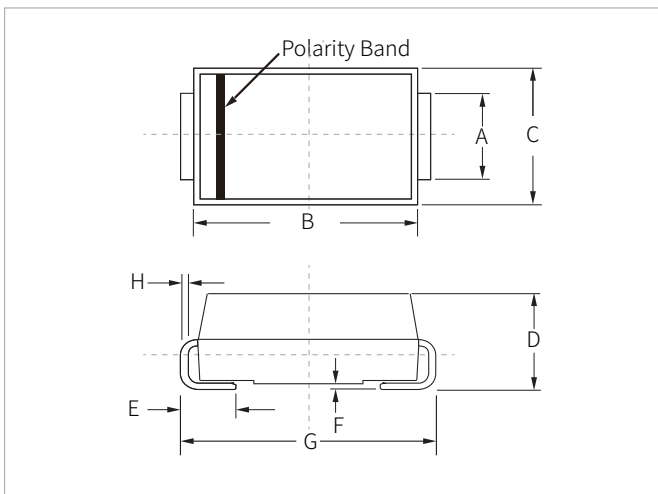


## SOLDERING PARAMETERS

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

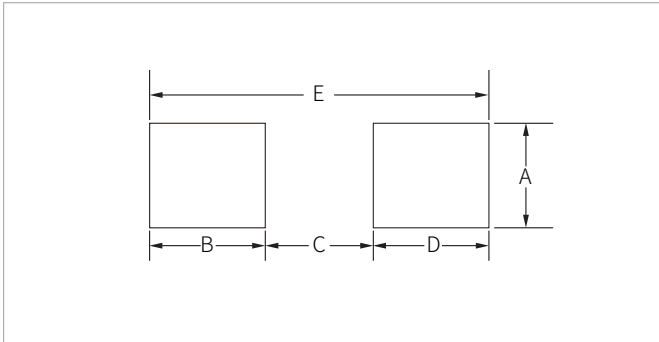


## DO-214AB(SMC) PACKAGE INFORMATION



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
GS3A-GS3M	DO-214AB(SMC)	3000PCS	13"

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