

FEATURES

- | Low Profile Package
- | Ideal For Automated Placement
- | Glass passivated chip junction
- | High Forward Surge Capability
- | Meet AEC-Q101 Requirements



DO-214AC(SMA)



Schematic Symbol

APPLICATIONS

- | For Use In General Purpose Rectification Of Power Supplies, Inverters, Converters, And Freewheeling Diodes For Consumer, And Telecommunication

APPROVALS

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

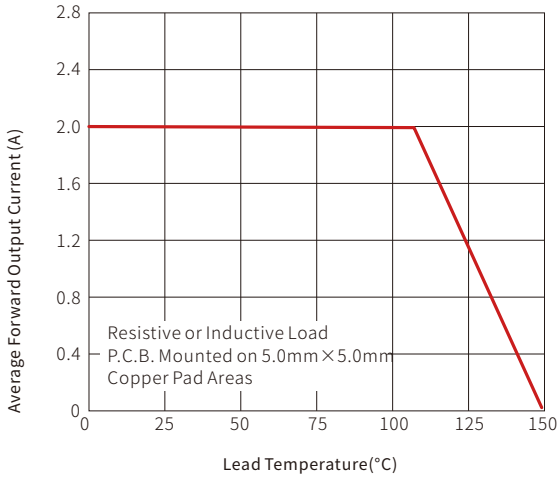
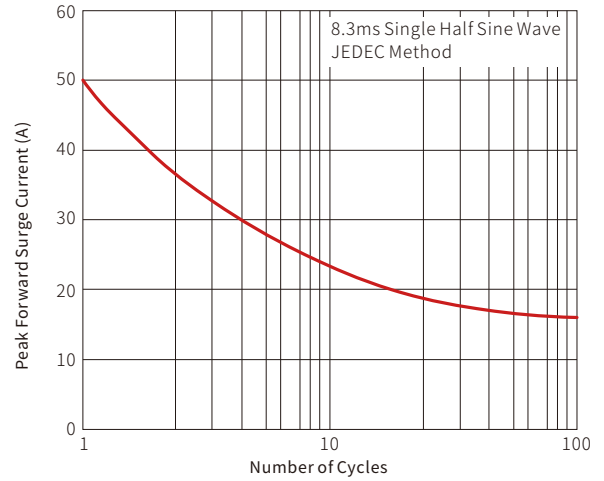
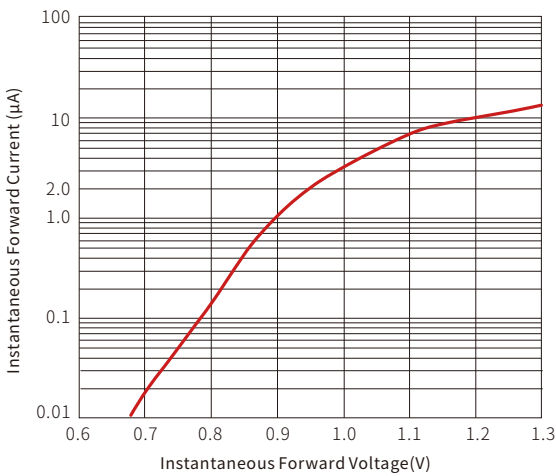
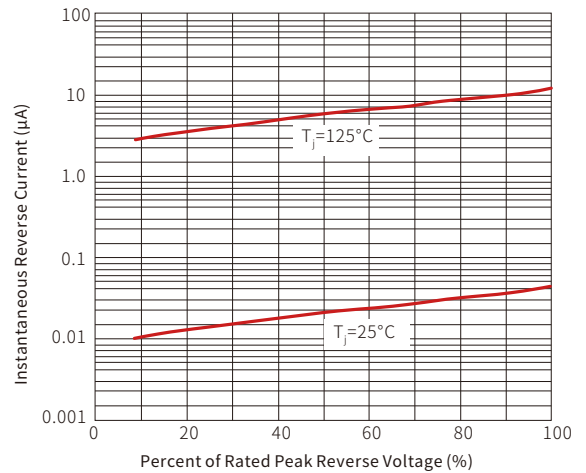
MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	GS2A AQ	GS2B AQ	GS2D AQ	GS2G AQ	GS2J AQ	GS2K AQ	GS2M AQ	Unit
Marking		GS2A Q	GS2B Q	GS2D Q	GS2G Q	GS2J Q	GS2K Q	GS2M Q	
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	2							A
Forward Surge Current (Non-Repetitive) @60Hz Half-sine Wave, 1 cycle, T _J =25°C	I _{FSM}	50							
Forward Surge Current (Non-Repetitive) @1ms, square Wave, 1 cycle, T _J =25°C		100							
Maximum Instantaneous Forward Voltage I _{FM} =2.0A	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	12							pF
Current squared time @1ms ≤ t ≤ 8.3ms T _J =25°C	I ² t	10.735							A ² s
Typical Thermal Resistance ⁽¹⁾	R _{θJ-A}	65							°C/W
	R _{θJ-L}	20							
	R _{θJ-C}	18							
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150							°C

Note

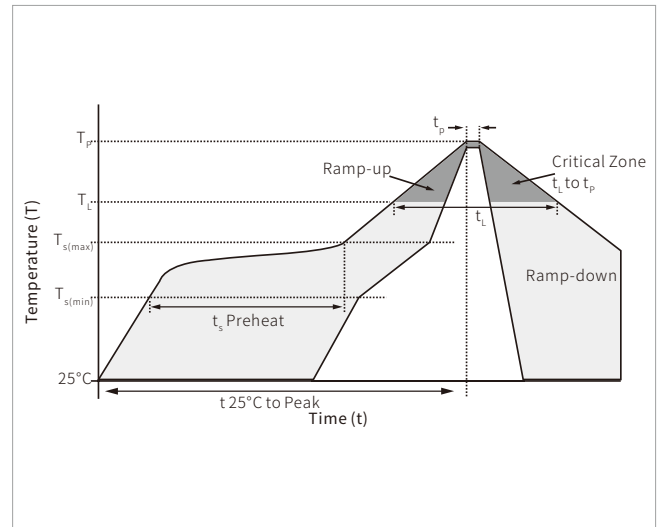
(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

CHARACTERISTIC CURVES

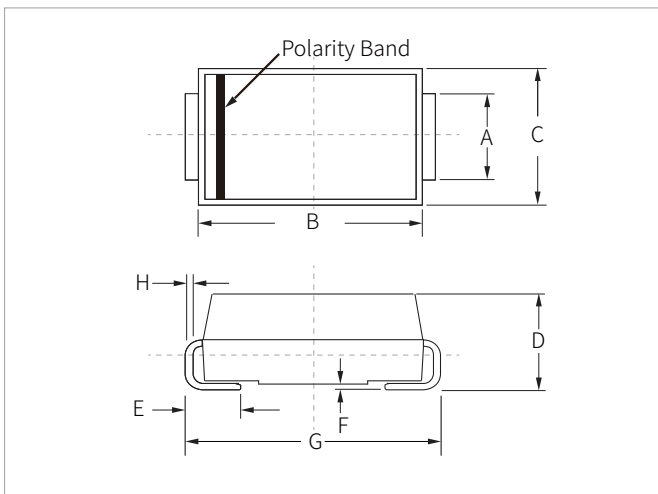
Fig. 1- I_o-T_L Curve

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

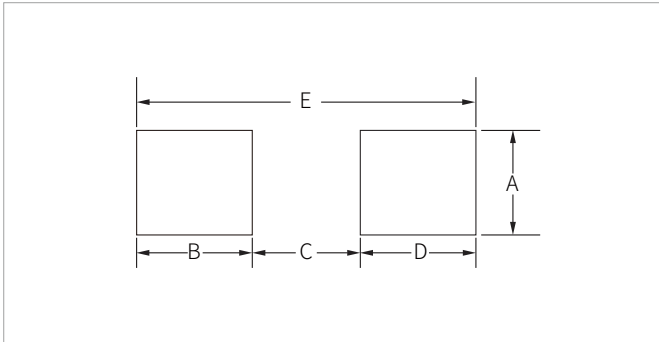


DO-214AC(SMA) PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.20	1.60	0.047	0.063
B	4.20	4.60	0.165	0.181
C	2.40	2.80	0.094	0.110
D	2.00	2.40	0.079	0.094
E	0.76	1.52	0.030	0.060
F	0.02	0.20	0.001	0.008
G	4.85	5.25	0.191	0.207
H	0.15	0.30	0.006	0.012

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.63	-	0.064	-
B	1.45	-	0.057	-
C	-	2.80	-	0.090
D	1.45	-	0.057	-
E	5.28REF		0.208REF	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
GS2AAQ-GS2MAQ	DO-214AC(SMA)	5000PCS	13"

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