

Features

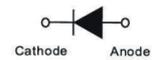
- Low profile package
- Ideal for automated placement
- Glass passivated chip junction
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C



DO-214AC (SMA)

Mechanical Data

- Package: DO-214AC (SMA)
 Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes the cathode end



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	2000	V
Maximum RMS Voltage	V _{RMS}	1400	V
Maximum DC Blocking Voltage	V _{DC}	2000	V
Average Rectified Output Current @ 60Hz Sine Wave, Resistance Load, T _L (FIG.1)	I _O	2.0	A
Forward Surge Current (Non-Repetitive) @ 60Hz Half-Sine Wave, 1 Cycle, T _J =25°C	I _{FSM}	40	A
Forward Surge Current (Non-Repetitive) @ 1ms, Square Wave, 1 Cycle, T _J =25°C		60	
Current Squared Time @ 1ms ≤ t ≤ 8.3ms, T _J =25°C	I ² t	3.735	A ² s
Typical Thermal Resistance, Junction to Ambient ¹	R _{θJA}	70	°C/W
Typical Thermal Resistance, Junction to Lead ¹	R _{θJL}	25	
Typical Thermal Resistance, Junction to Case ¹	R _{θJC}	15	
Storage Temperature Range	T _{stg}	-55 to +150	°C
Junction Temperature Range	T _J	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Value	Unit
Maximum Instantaneous Forward Voltage	V _F	I _{FM} =2.0A	1.15	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _J =25°C	5	μA
		T _J =125°C	100	
Typical Junction Capacitance	C _J	Measured at 1MHz and Applied Reverse Voltage of 4.0V.D.C	7	pF

Note:

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

Typical Characteristics Curves

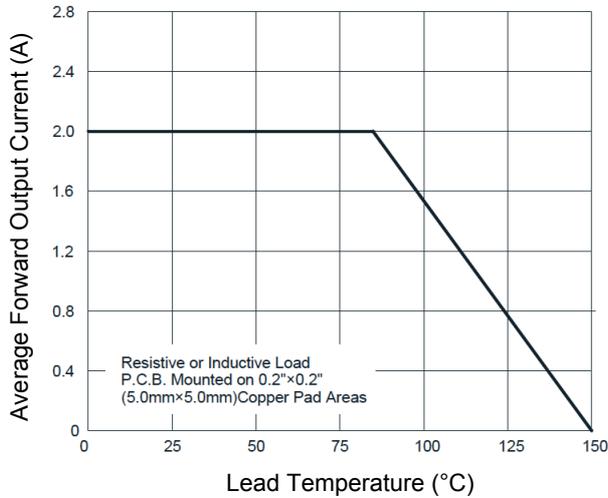


Figure 1. I_o - T_L Curve

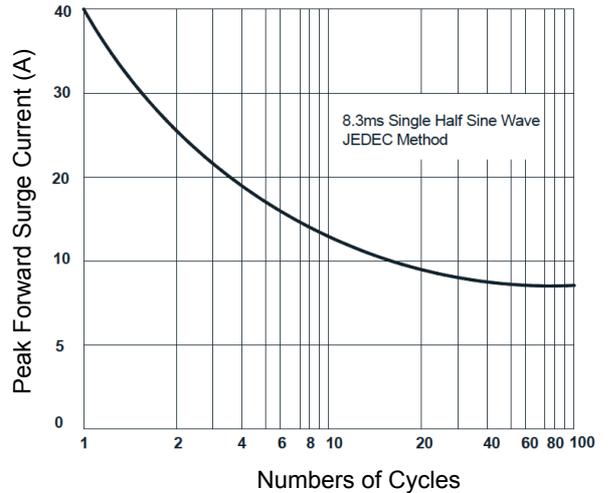


Figure 2. Forward Surge Current Capability

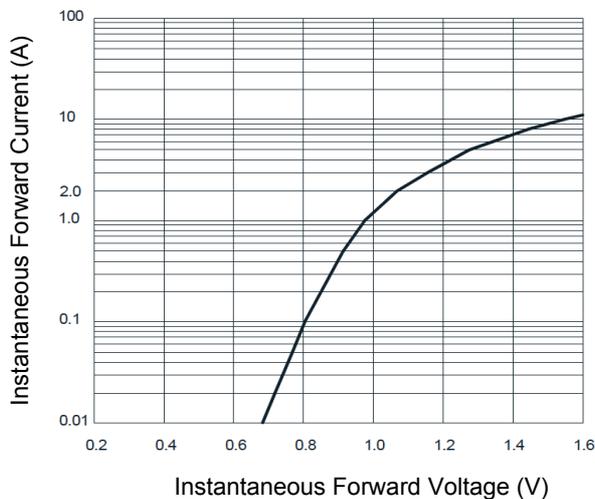


Figure 3. Typical Forward Voltage

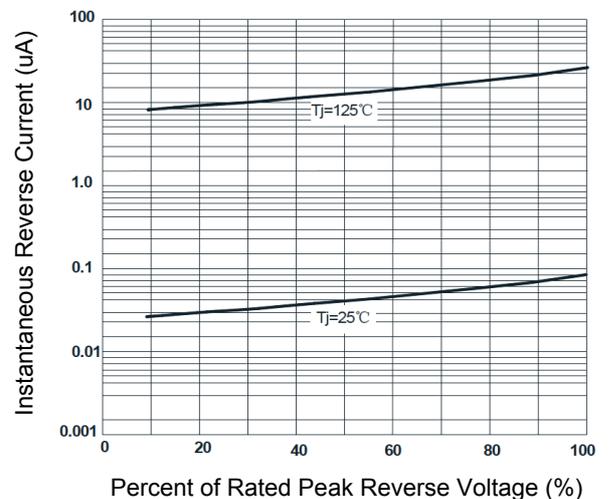
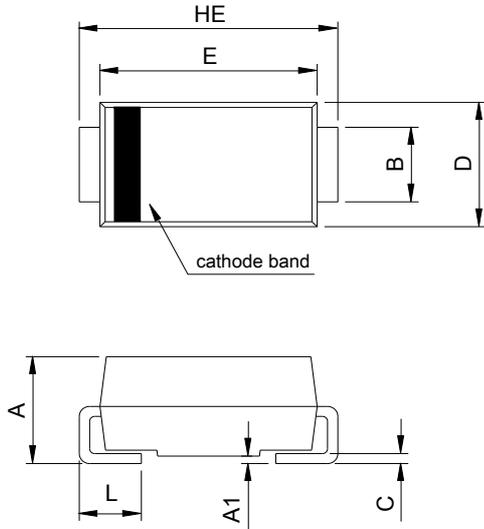


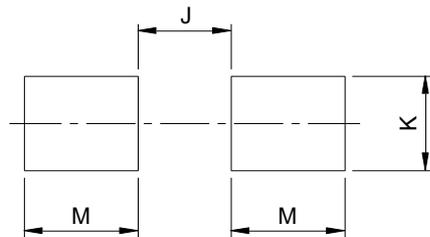
Figure 4. Typical Reverse Characteristics

Package Outline Dimensions DO-214AC (SMA)



SMA (DO-214AC)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.90	2.30	0.075	0.091
A1	0.00	0.20	0.000	0.008
B	1.25	1.65	0.049	0.065
C	0.15	0.31	0.006	0.012
D	2.35	2.90	0.093	0.114
E	3.99	4.60	0.157	0.181
HE	4.80	5.30	0.189	0.209
L	0.76	1.52	0.030	0.060

Recommended Pad Layout



Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.20	-	0.087
K	1.72	-	0.068	-
M	2.00	-	0.079	-

Order Information

Device	Package	Marking	Carrier	Quantity
GSG2MA2K	DO-214AC (SMA)	MA2K	Tape & Reel	7,500 pcs / Reel