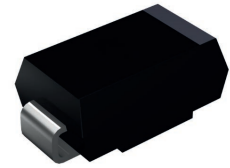


Features

- Guard ring for overvoltage protection
- Low forward voltage drop, low power losses
- High forward surge capability
- High frequency operation
- Solder dip 260°C max. 10s, per JESD22-B106



DO-214AC (SMA)

Mechanical Data

- Package: DO-214AC (SMA)
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Tin plated leads, solderable per J-STD-002
- Polarity: Color band denotes the cathode end



Schematic Diagram

Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	65	V
Average Rectified Output Current @60Hz Sine Wave, Resistance Load, T _A (FIG.1)	I _O	5.0	A
Forward Surge Current (Non-Repetitive) @60Hz Half-Sine Wave, 1 Cycle, T _A =25°C	I _{FSM}	100	A
Typical Thermal Resistance, Junction to Ambient ¹	R _{θJA}	50	°C/W
Typical Thermal Resistance, Junction to Lead ¹	R _{θJL}	15	°C/W
Storage Temperature Range	T _{stg}	-55 to +150	°C
Junction Temperature Range	T _J	-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.

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

Parameter	Symbol	Test Condition	Value	Unit
Maximum Instantaneous Forward Voltage	V _F	I _{FM} =5.0A	0.50	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _A =25°C	0.1	mA

Typical Characteristics Curves

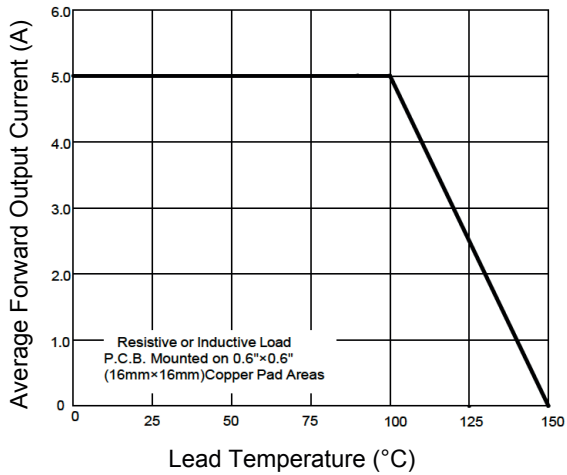


Figure 1. I_o - T_L Curve

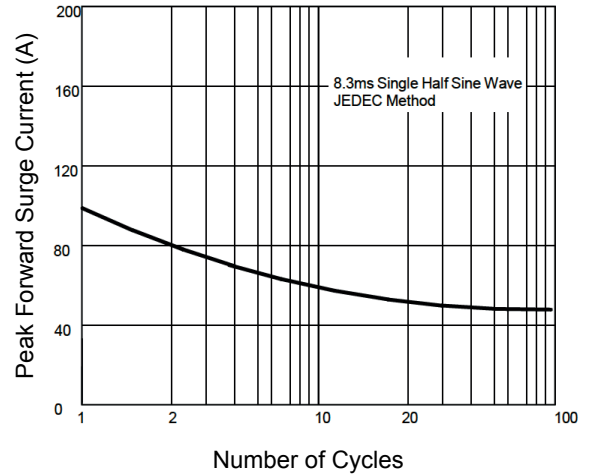


Figure 2. Forward Surge Current Capability

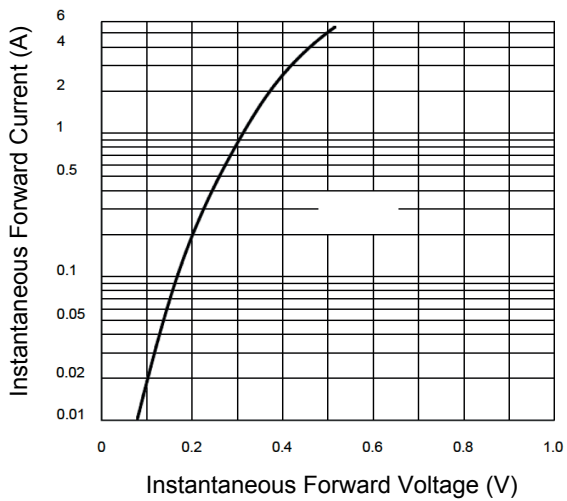


Figure 3. Forward Voltage

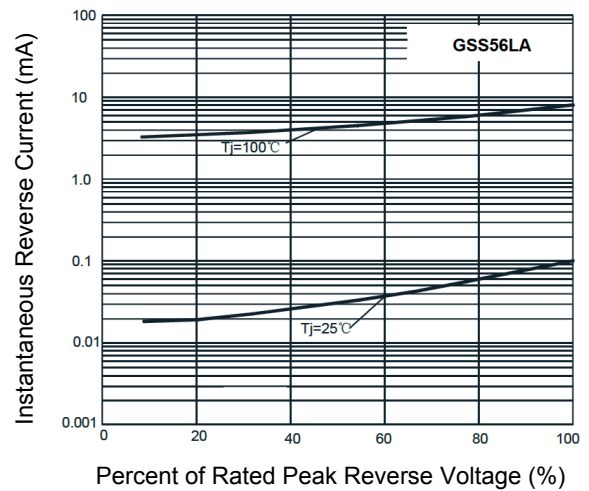
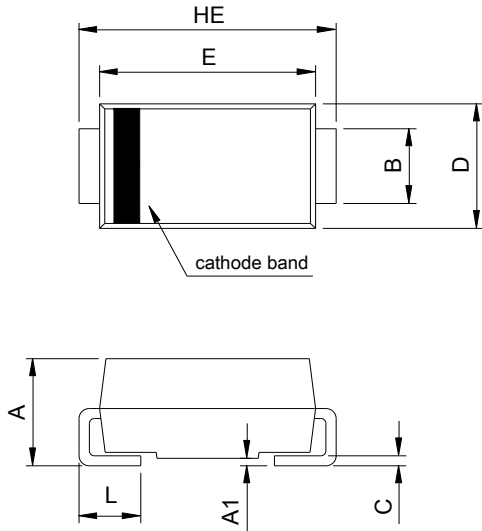


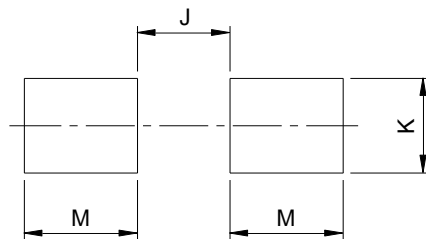
Figure 4. Typical Reverse Characteristics

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	Packaging	SPQ
GSS56LA	DO-214AC (SMA)	SS56LA	Tape & Reel	7,500 pcs / Reel