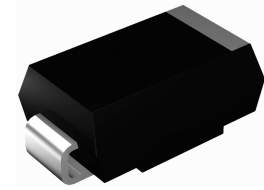


## Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C



DO-214AC (SMA)

## Applications

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

## Features

- 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: Cathode line denotes the cathode end

## Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	GSS 12A	GSS 13A	GSS 14A	GSS 15A	GSS 16A	GSS 18A	GSS 110A	GSS 115A	GSS 120A	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	V
Average Rectified Output Current @ 60Hz Sine Wave, Resistance Load, T <sub>L</sub> (FIG.1)	I <sub>O</sub>	1.0									A
Surge (Non-Repetitive) Forward Current @ 60Hz Half-Sine Wave, 1 Cycle, T <sub>A</sub> =25°C	I <sub>FSM</sub>	30									A
Thermal Resistance <sup>1</sup>	R <sub>θJ-A</sub>	65									°C/W
	R <sub>θJ-L</sub>	20									
Storage Temperature	T <sub>stg</sub>	-55 to +150									°C
Junction Temperature	T <sub>j</sub>	-55 to +150					-55 to +175				°C

## Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Condition	GSS 12A	GSS 13A	GSS 14A	GSS 15A	GSS 16A	GSS 18A	GSS 110A	GSS 115A	GSS 120A	Unit
Maximum Instantaneous Forward Voltage Drop	V <sub>F</sub>	I <sub>FM</sub> =1.0A	0.50		0.65		0.80		0.85		V	
Maximum DC Reverse Current at Rated DC Blocking Voltage @ V <sub>RM</sub> =V <sub>RRM</sub>	I <sub>RRM</sub>	T <sub>A</sub> =25°C	0.50					0.10				mA
		T <sub>A</sub> =100°C	10					5.0				

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

## Ratings and Characteristics Curves

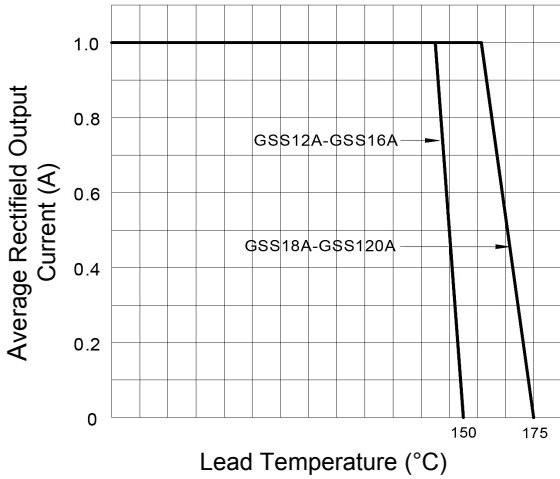


Figure 1.  $I_o$ - $T_L$  Curve

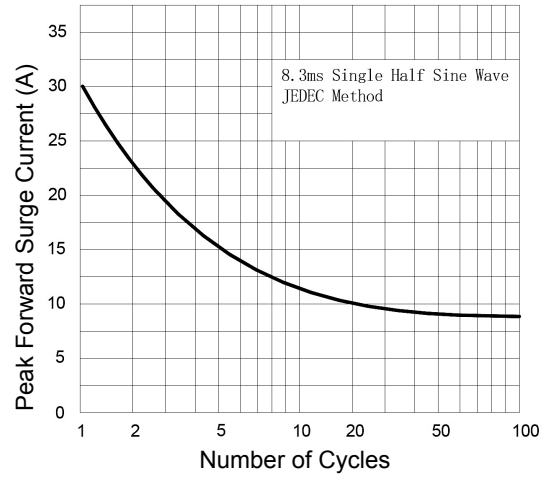


Figure 2. Surge Forward Current Capability

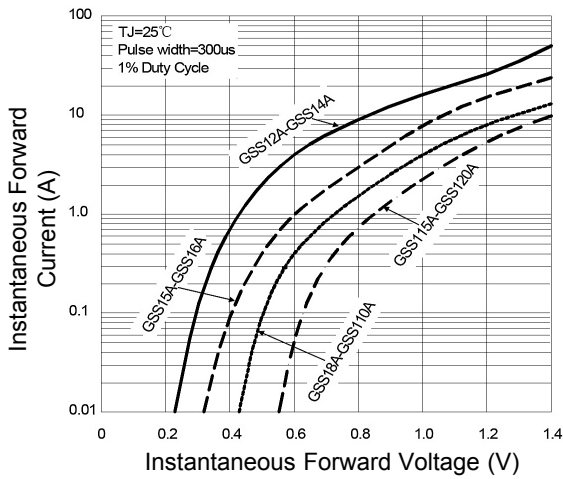


Figure 3. Typical Forward Characteristics

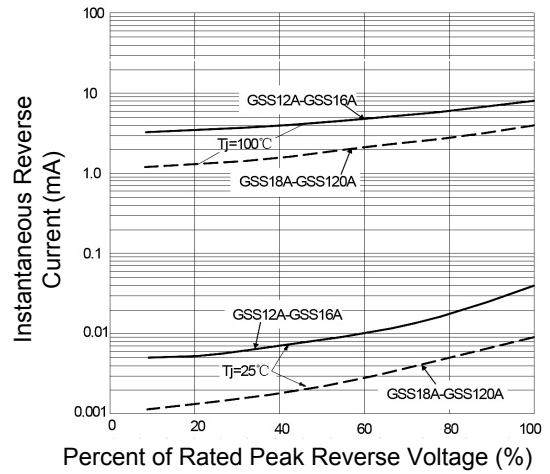
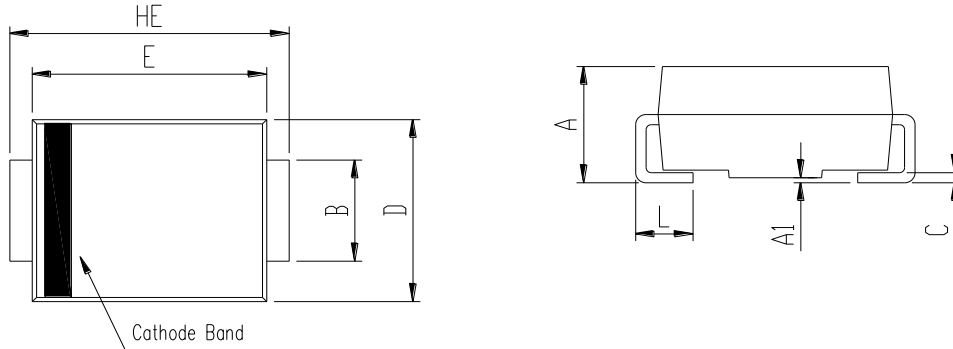


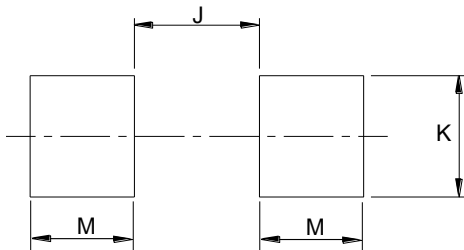
Figure 4. Typical Reverse Characteristics

## Package Outline Dimensions DO-214AC (SMA)



Symbol	Dimensions In Millimeters		Dimensions In 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
GSS12A	DO-214AC (SMA)	SS12A	Tape & Reel	7,500 Pcs / Reel
GSS13A	DO-214AC (SMA)	SS13A	Tape & Reel	7,500 Pcs / Reel
GSS14A	DO-214AC (SMA)	SS14A	Tape & Reel	7,500 Pcs / Reel
GSS15A	DO-214AC (SMA)	SS15A	Tape & Reel	7,500 Pcs / Reel
GSS16A	DO-214AC (SMA)	SS16A	Tape & Reel	7,500 Pcs / Reel
GSS18A	DO-214AC (SMA)	SS18A	Tape & Reel	7,500 Pcs / Reel
GSS110A	DO-214AC (SMA)	SS110A	Tape & Reel	7,500 Pcs / Reel
GSS115A	DO-214AC (SMA)	SS115A	Tape & Reel	7,500 Pcs / Reel
GSS120A	DO-214AC (SMA)	SS120A	Tape & Reel	7,500 Pcs / Reel