

# GSDS1A Series

## Surface Mount Standard Recovery Glass Passivated

### Product Description

Reverse Voltage 50V to 1000V Forward Current  
1.0A

### Features

- High Current Capability
- High Surge Current Capability
- Low Reverse Current
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 Qualified
- Lead(Pb)-Free

### Mechanical Data

- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity : Cathode Band
- Weight : 0.064 grams (approximate)

### Packages



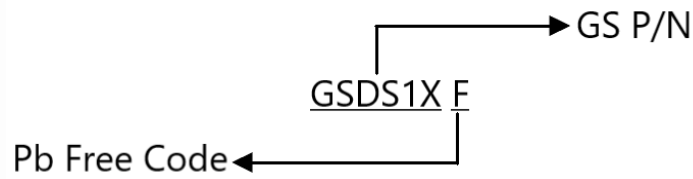
SMA(DO-214AC)

### Marking Information

GS P/N	Package	Part Marking
GSDS1AF	SMA(DO-214AC)	S1A
GSDS1BF	SMA(DO-214AC)	S1B
GSDS1DF	SMA(DO-214AC)	S1D
GSDS1GF	SMA(DO-214AC)	S1G
GSDS1JF	SMA(DO-214AC)	S1J
GSDS1KF	SMA(DO-214AC)	S1K
GSDS1MF	SMA(DO-214AC)	S1M

※ "S1x" GS P/N

## Ordering Information



Part Number	Package	Quantity
GSDS1AF Series	SMA(DO-214AC)	5000 PCS

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

Symbol	Conditions	GSDS1AF	GSDS1BF	GSDS1DF	GSDS1GF	Unit
V <sub>RRM</sub>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	V
V <sub>RMS</sub>	Maximum RMS Voltage	35	70	140	280	V
V <sub>DC</sub>	Maximum DC Blocking Voltage	50	100	200	400	V
Symbol	Conditions	GSDS1JF	GSDS1KF	GSDS1MF	Unit	
V <sub>RRM</sub>	Maximum Recurrent Peak Reverse Voltage	600	800	1000	V	
V <sub>RMS</sub>	Maximum RMS Voltage	420	560	700	V	
V <sub>DC</sub>	Maximum DC Blocking Voltage	600	800	1000	V	
V <sub>F</sub>	Maximum Instantaneous Forward Voltage At I <sub>F</sub> =1A	1.1			V	
I <sub>R</sub>	Maximum DC Reverse Current At Rated DC Blocking Voltage	T <sub>A</sub> =25°C	5		µA	
		T <sub>A</sub> =100°C	100		µA	
I <sub>F</sub>	Maximum Average Forward Rectified Current	1.0			A	
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed On Rated Load	30			A	
C <sub>J</sub>	Typical Junction Capacitance(Note 1)	50			pF	
R <sub>θJA</sub>	Thermal Resistance Junction to Ambient	100			°C/W	
T <sub>J</sub>	Junction Temperature Range	-55 to +150			°C	
T <sub>STG</sub>	Storage Temperature Range	-55 to +150			°C	

Notes : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC

## Typical Characteristics

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

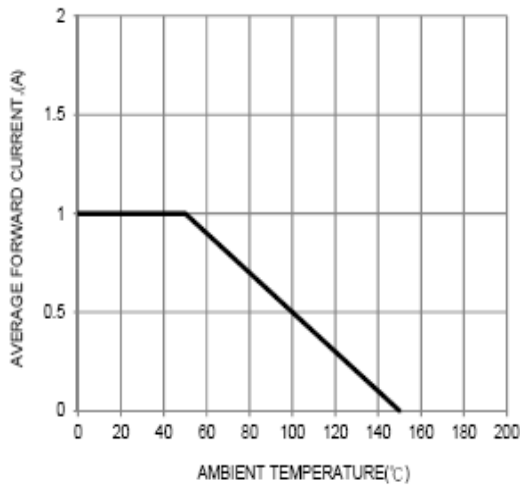


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

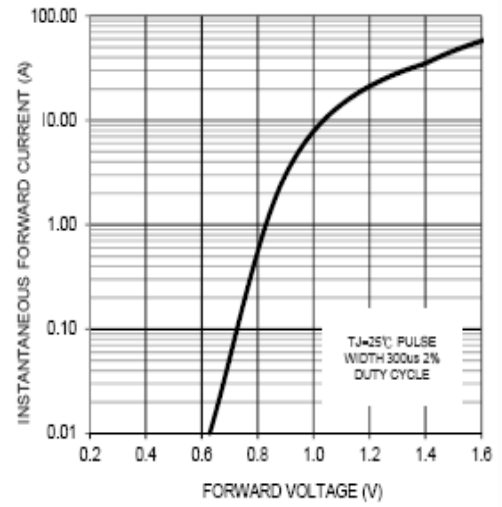


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

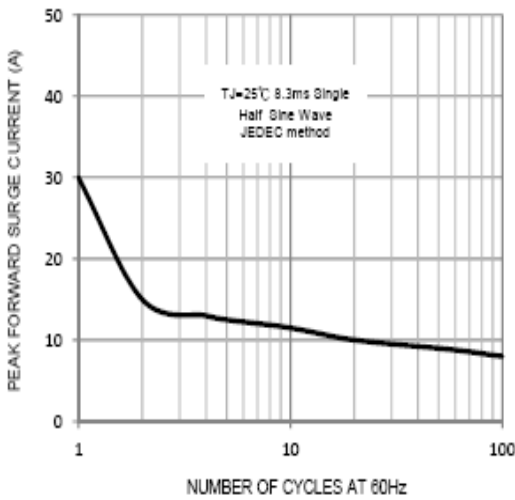


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

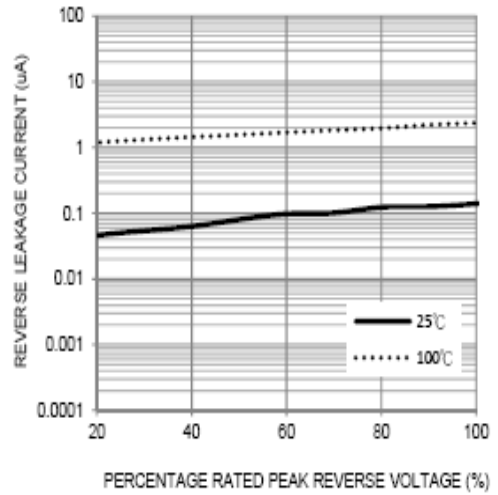
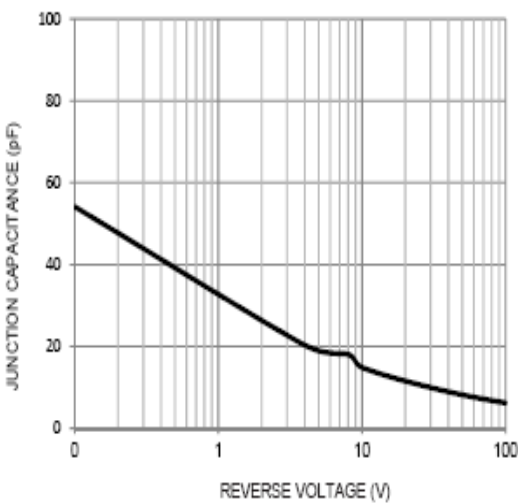
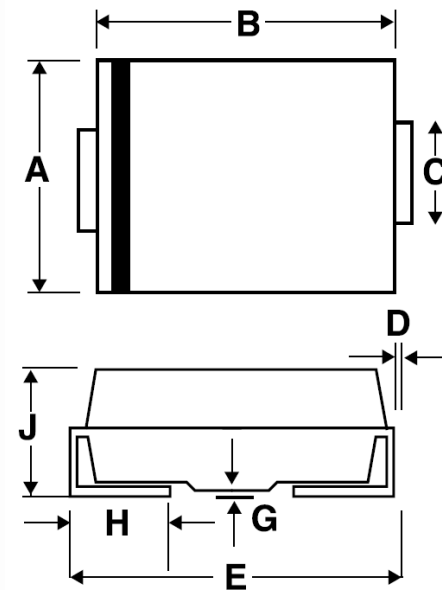


FIG. 5-TYPICAL JUNCTION CAPACITANCE



## Package Dimension

### SMA(DO-214AC)



### Dimensions





Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	2.20	2.92	0.086	0.114
<b>B</b>	4.00	4.60	0.157	0.181
<b>C</b>	1.27	1.63	0.050	0.064
<b>D</b>	0.15	0.31	0.005	0.012
<b>E</b>	4.48	5.59	0.176	0.220
<b>G</b>	0.10	0.20	0.003	0.007
<b>H</b>	0.76	1.52	0.029	0.059
<b>J</b>	1.70	2.62	0.066	0.103

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