

# GSDE1□AF Series

## Fast Recovery Diode

### Product Description

Reverse Voltage 200V to 600V.  
Forward Current 1.0A



### Features

- 35ns Max Reverse Recovery Time
- RoHS Compliant and Halogen Free

### Mechanical Data

- SMA (DO-214AC) Package
- Polarity: Color Band denotes Cathode End

### Package and Pin Assignment

SMA (DO-214AC)		Equivalent Circuit
		
Pin	Description	
1	Anode	
2	Cathode	

### Ordering and Marking Information

Ordering Information			
Part Number	V <sub>RRM</sub>	Marking Code	Quantity/Reel
GSDE1DAF	200	ES1D	5000 PCS
GSDE1GAF	400	ES1G	5000 PCS
GSDE1JAF	600	ES1J	5000 PCS

\* GSDE1DAF can be selected if required V<sub>RRM</sub> of 50V, 100V and 150V.

**GSDE1 1 A F**

<b>- Product Code:</b> GSDE1	<b>- Voltage Code:</b> 1 is D, G or J stands for Maximum repetitive peak reverse voltage.	<b>- Package Code:</b> A for SMA (DO-214AC) Package
<b>- Green Level:</b> F for RoHS Compliant and Halogen Free		

## Marking Information

ES1 1

- **Product Code:**

ES1

- **Voltage Code:**

1 is D, G or J stands for  
Maximum repetitive peak  
reverse voltage.

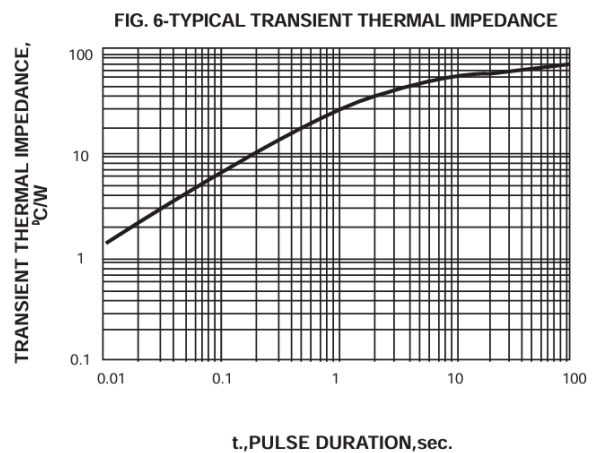
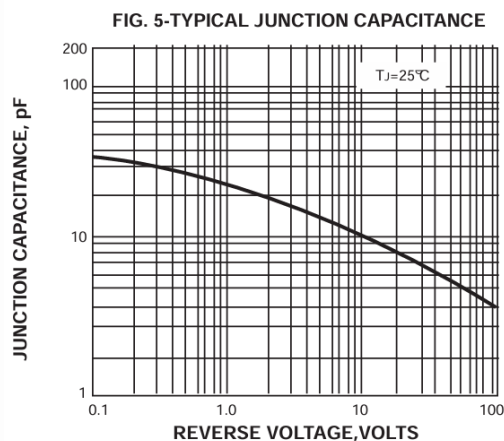
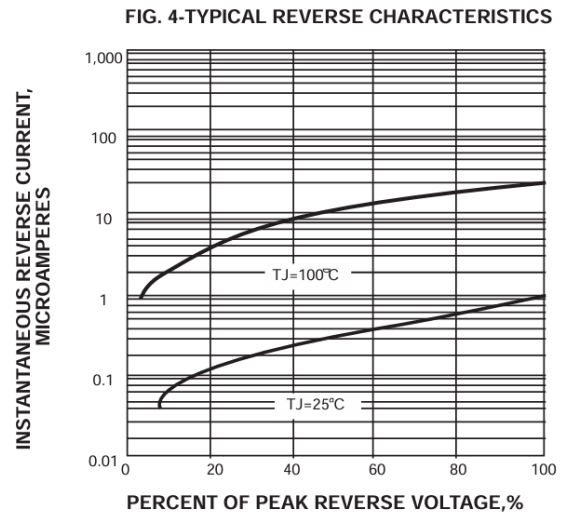
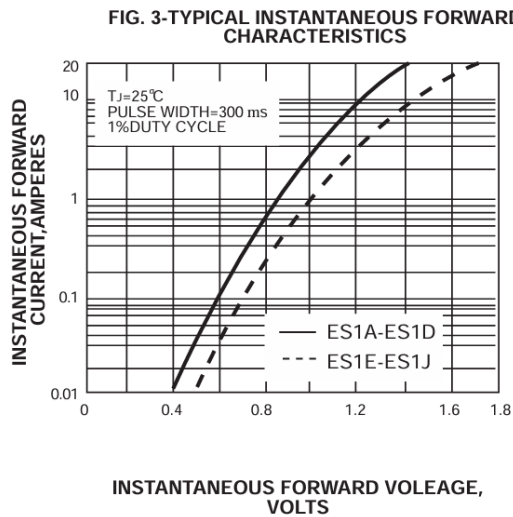
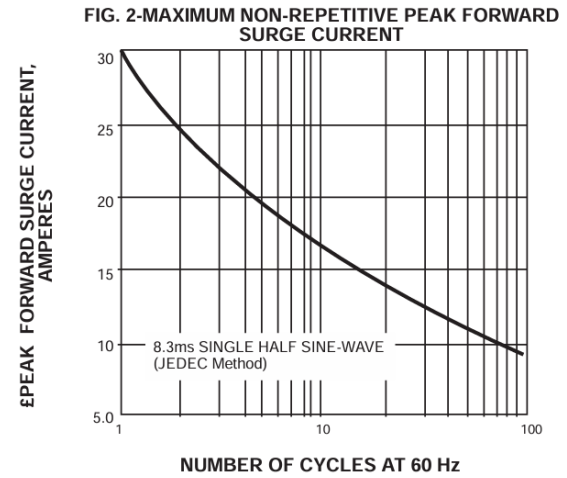
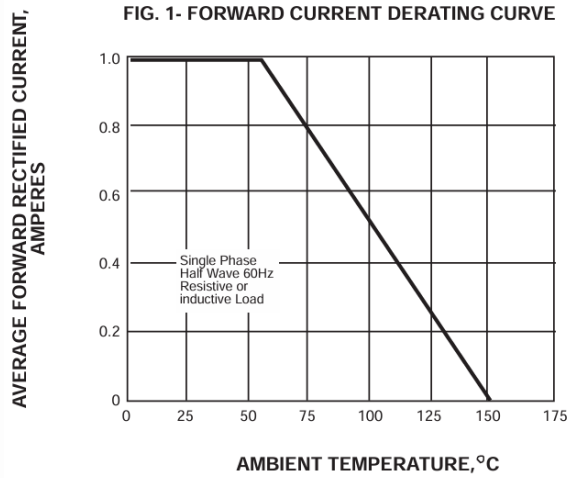
## Electrical Characteristics (Ratings at 25°C Ambient Temperature Unless Otherwise Specified.)

Symbol	Conditions		E1D	E1G	E1J	Unit
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage		200	400	600	V
$V_{RMS}$	Maximum RMS Voltage		140	280	420	V
$V_{DC}$	Maximum DC Blocking Voltage		200	400	600	V
$I_{F(AV)}$	Maximum Average Forward Rectified Current		1			A
$I_{FSM}$	Peak Forward Surge Current (8.3ms Single Half Sinewave)		30			A
$V_F$	Maximum Forward Voltage at 1.0A		0.95	1.25	1.7	V
$I_R$	Maximum Reverse Leakage Current at rated $V_R$	$T_A = 25^\circ\text{C}$	5			$\mu\text{A}$
		$T_A = 100^\circ\text{C}$	50			$\mu\text{A}$
$t_{rr}$	Maximum reverse recovery time <sup>(1)</sup>		35			ns
$C_J$	Typical Junction Capacitance <sup>(2)</sup>		15			pF
$R_{\theta JA}$	Typical Thermal Resistance <sup>(3)</sup>		60			$^\circ\text{C}/\text{W}$
$T_J$	Operating Junction Temperature Range		-55 to +150			$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range		-55 to +150			$^\circ\text{C}$

### NOTES:

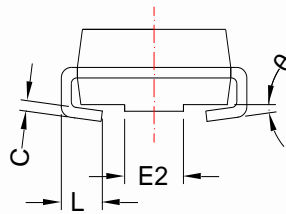
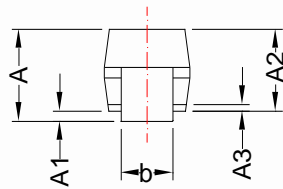
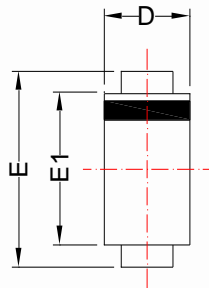
1. Measured with  $I_F=0.5\text{A}$ ,  $I_R=1\text{A}$ ,  $I_{rr}=0.25\text{A}$ .
2. Measured at 1MHz and applied reverse voltage of 4.0V<sub>DC</sub>
3. Mounted with 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas

## Typical Characteristics (Ratings at 25°C Ambient Temperature Unless Otherwise Specified.)

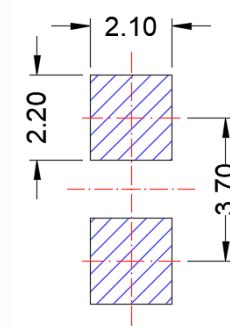


# SMA (DO-214AC)

## Package Dimension



## Recommended Land Pattern



(Unit: mm)

Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
A	1.70	2.90	0.067	0.114
A1	1.70	---	0.067	---
A2	0.00	0.20	0.000	0.008
A3	0.05	0.30	0.002	0.012
b	1.20	1.70	0.047	0.067
c	0.15	0.41	0.006	0.016
D	2.18	2.95	0.086	0.116
E	4.70	5.60	0.185	0.220
E1	3.90	4.70	0.154	0.185
E2	1.40	1.90	0.055	0.075
L	0.75	1.6	0.030	0.063
θ	0°	8°	0°	8°





### Note:



Dimensions are exclusive of Burrs, Mold Flash & Tie Bar extrusions.

## NOTICE

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