

# GSS3A Series

## Surface Mount Silicon Rectifiers

### Product Description

Reverse Voltage 50V To 1000V Forward Current 3.0A

### Features

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Low forward voltage drop
- Lead(Pb)-Free

### Mechanical Data

- Case : Molded Plastic
- Epoxy : UL 94V-0 rate flame retardant
- Metallurgically bonded construction
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.21 grams

### Packages



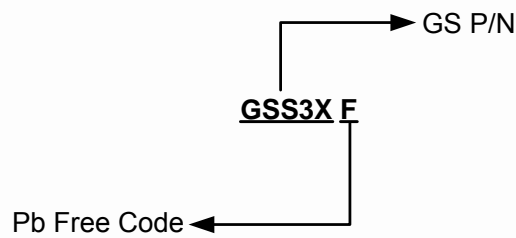
### Marking Information

P/N	Package	Part Marking
GSS3AF	SMC	WTYYWW S3A.
GSS3BF	SMC	WTYYWW S3B.
GSS3DF	SMC	WTYYWW S3D.
GSS3GF	SMC	WTYYWW S3G.
GSS3JF	SMC	WTYYWW S3J.
GSS3KF	SMC	WTYYWW S3K.
GSS3MF	SMC	WTYYWW S3M.

※ "WT" GS Code & "YYWW" Date Code

※ "S3X" GS P/N & "." Halogen Free

## Ordering Information



Part Number	Package	Quantity
GSS3AF Series	SMC	3000 PCS

## Electrical Characteristics

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Symbol	Conditions	S3A	S3B	S3D	S3G	Unit
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	50	100	200	400	V
$V_{RMS}$	Maximum RMS Voltage	35	70	140	280	V
$V_{DC}$	Maximum DC Blocking Voltage	50	100	200	400	V
Symbol	Conditions	S3J	S3K	S3M	Unit	
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	600	800	1000	V	
$V_{RMS}$	Maximum RMS Voltage	420	560	700	V	
$V_{DC}$	Maximum DC Blocking Voltage	600	800	1000	V	
$V_F$	Maximum Instantaneous	1.2			V	
$I_R$	Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_A = 25^\circ\text{C}$	5.0			uA
		$T_A = 125^\circ\text{C}$	250			
$C_J$	Typical Junction Capacitance (Note 1)	60			pF	
$I_{F(AV)}$	Maximum Average Forward Rectified Current @ $T_A = 75^\circ\text{C}$	3.0			A	
$I_{FSM}$	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	100			A	
$R_{\theta JA}$	Typical Thermal Resistance (Note 2)	13			$^\circ\text{C/W}$	
$T_J$	Junction Temperature Range	-65 to +150			$^\circ\text{C}$	
$T_{STG}$	Storage Temperature Range	-65 to +150			$^\circ\text{C}$	

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

2. Thermal Resistance Junction to Ambient

## Typical Characteristics

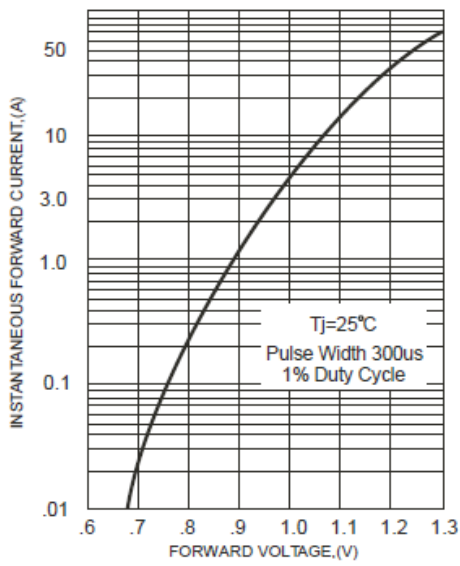


FIG.1-TYPICAL FORWARD CHARACTERISTICS

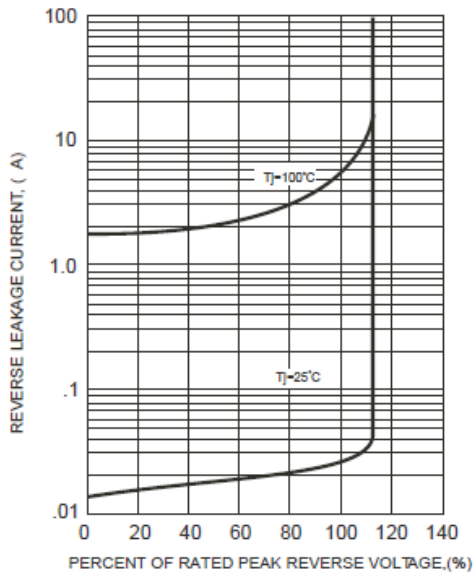


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

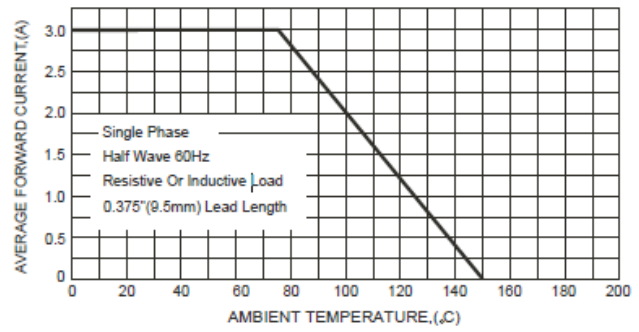


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

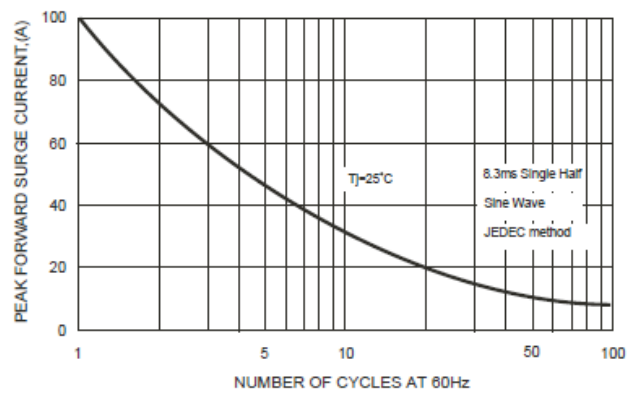


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

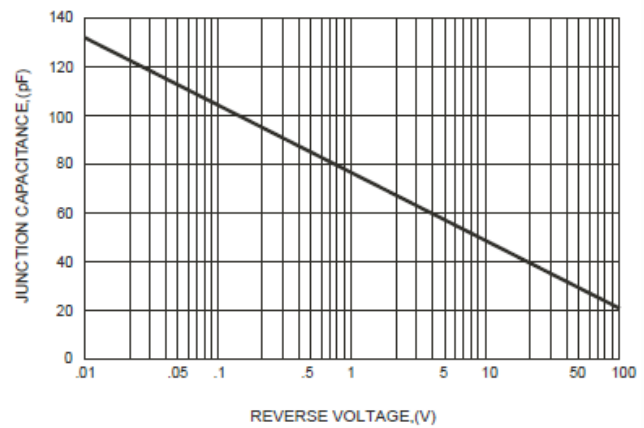
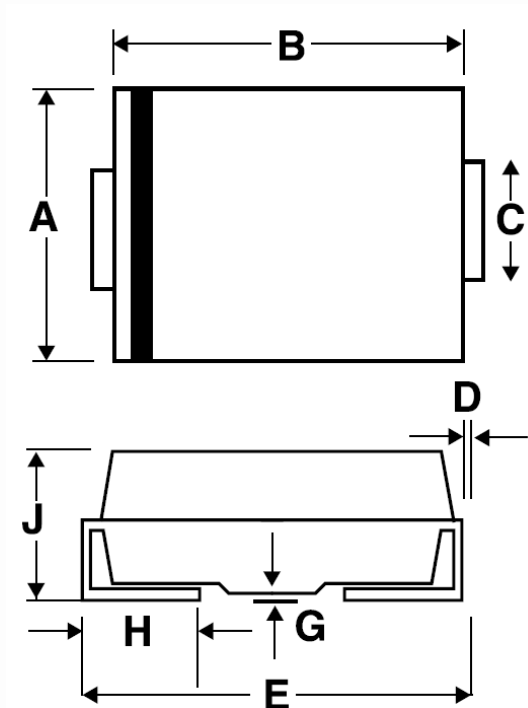


FIG.5-TYPICAL JUNCTION CAPACITANCE

## Package Dimension

### SMC







### Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	5.59	6.22	0.220	0.244
<b>B</b>	6.60	7.11	0.260	0.279
<b>C</b>	2.75	3.18	0.108	0.125
<b>D</b>	0.15	0.31	0.005	0.012
<b>E</b>	7.75	8.13	0.305	0.320
<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>	2.00	2.62	0.078	0.103





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## CONTACT US

GS Headquarter	
	4F.,No.43-1,Lane11,Sec.6,Minquan E.Rd Neihu District Taipei City 114, Taiwan (R.O.C)
	886-2-2657-9980
	886-2-2657-3630
	sales_twn@gs-power.com

Wu-Xi Branch	
	No.21 Changjiang Rd., WND, Wuxi, Jiangsu, China (INFO. & TECH. Science Park Building A 210 Room)
	86-510-85217051
	86-510-85211238
	sales_cn@gs-power.com

RD Division	
	824 Bolton Drive Milpitas. CA. 95035
	1-408-457-0587