

# GSDB320A Series

## Surface Mount Schottky Barrier Rectifiers

### Product Description

Reverse Voltage 20V to 200V Forward Current 3.0A

### Features

- Low profile package
- Ideal for automated placement
- Guard ring for over voltage protection
- Low forward voltage drop
- 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: 0.062 grams (approximate)

### Packages



SMA (DO-214AC)

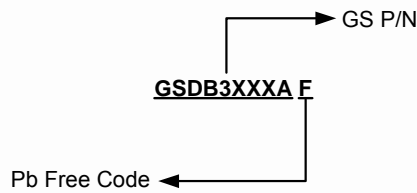
### Marking Information

P/N	Package	Part Marking	Quantity
GSDB320AF	SMA(DO-214AC)	WTYYWW B320A.	5000 PCS
GSDB330AF	SMA(DO-214AC)	WTYYWW B330A.	
GSDB340AF	SMA(DO-214AC)	WTYYWW B340A.	
GSDB350AF	SMA(DO-214AC)	WTYYWW B350A.	
GSDB360AF	SMA(DO-214AC)	WTYYWW B360A.	
GSDB380AF	SMA(DO-214AC)	WTYYWW B380A.	
GSDB3100AF	SMA(DO-214AC)	WTYYWW B3100A.	
GSDB3150AF	SMA(DO-214AC)	WTYYWW B3150A.	
GSDB3200AF	SMA(DO-214AC)	WTYYWW B3200A.	

※ "WT" GS Code & "YYWW" Date Code

※ "B3XXXX" GS P/N & "." Halogen Free

## Ordering Information



## Electrical Characteristics

(Rating 25°C Ambient Temperature Unless Otherwise Specified.)

Symbol	Conditions	B320A	B330A	B340A	B350A	B360A	Unit	
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	V	
$V_{RMS}$	Maximum RMS Voltage	14	21	28	35	42	V	
$V_{DC}$	Maximum DC Blocking Voltage	20	30	40	50	60	V	
$V_F$	Maximum Instantaneous At 3.0A DC	0.45	0.5		0.7		V	
$I_R$	Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_J = 25^\circ\text{C}$	0.5				mA	
		$T_J = 100^\circ\text{C}$	10					
$C_J$	Typical Junction Capacitance(Note 1)	180			150		pF	
Symbol	Conditions	B380A	B3100A	B3150A	B3200A		Unit	
$V_{RRM}$	Maximum Recurrent Peak Reverse Voltage	80	100	150	200		V	
$V_{RMS}$	Maximum RMS Voltage	56	70	105	140		V	
$V_{DC}$	Maximum DC Blocking Voltage	80	100	150	200		V	
$V_F$	Maximum Instantaneous At 3.0A DC	0.85		0.87	0.9		V	
$I_R$	Maximum DC Reverse Current At Rated DC Blocking Voltage	$T_J = 25^\circ\text{C}$	0.2				mA	
		$T_J = 100^\circ\text{C}$	5					
$C_J$	Typical Junction Capacitance(Note 1)	110	100	80			pF	
$I_{F(AV)}$	Maximum Average Forward Rectified Current @ $T_C=90^\circ\text{C}$	3						A
$I_{FSM}$	Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(Jedec Method )	80						A
$R_{\theta JA}$	Typical Thermal Resistance	100						$^\circ\text{C/W}$
$R_{\theta JC}$		80						$^\circ\text{C/W}$
$T_J$	Operating Temperature Range	-55 to +125						$^\circ\text{C}$
$T_{STG}$	Storage Temperature Range	-55 to +150						$^\circ\text{C}$

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

## Typical Characteristics

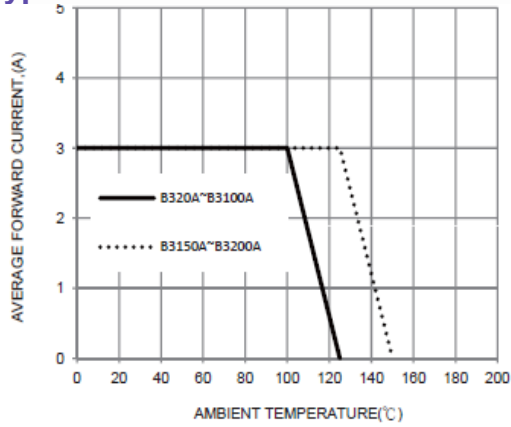


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

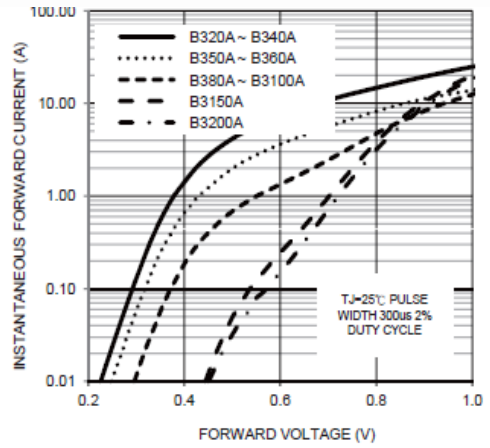


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

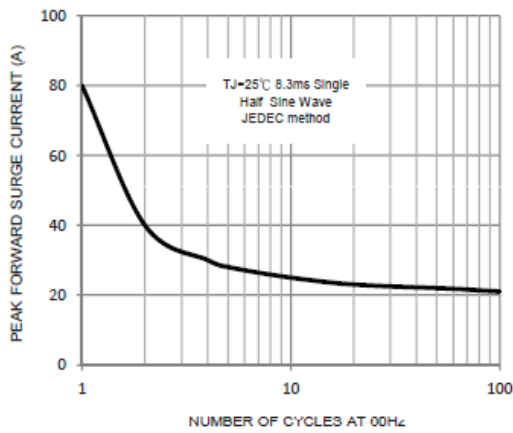


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

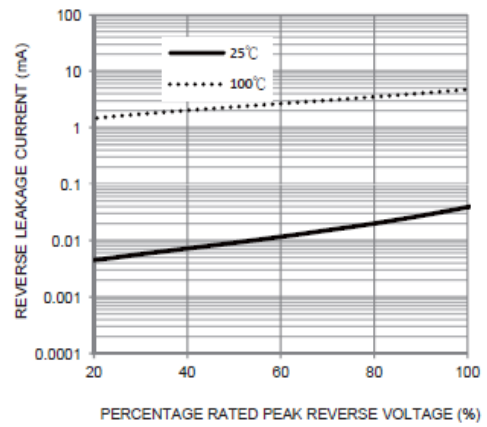
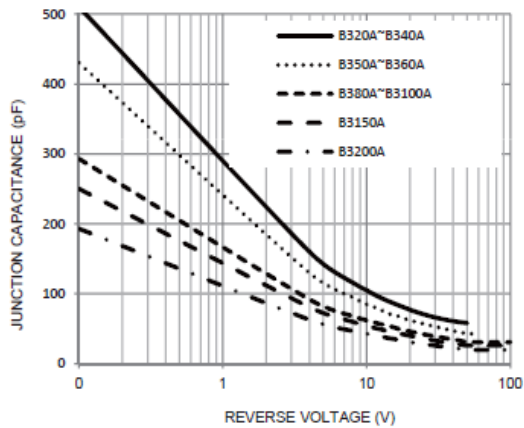
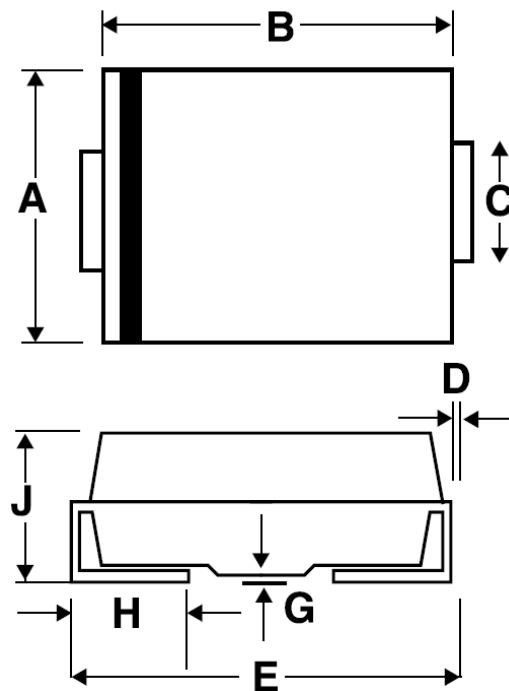


FIG. 4-TYPICAL REVERSE CHARACTERISTICS



## Package Dimension

### SMA (DO-214AC)



#### Dimensions

Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	2.54	2.79	0.100	0.109
<b>B</b>	3.99	4.50	0.157	0.177
<b>C</b>	1.25	1.65	0.042	0.064
<b>D</b>	0.15	0.31	0.005	0.012
<b>E</b>	4.91	5.28	0.193	0.207
<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>	1.98	2.29	0.077	0.090

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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