

# GSDSBAT42/43W

## Fast Switching Schottky Barrier Diodes

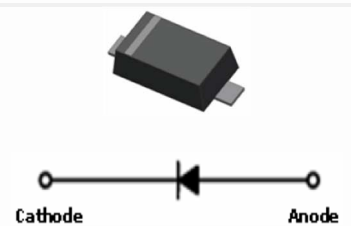
### Product Description

Fast Switching Schottky Barrier Diodes  
400mW / 30V

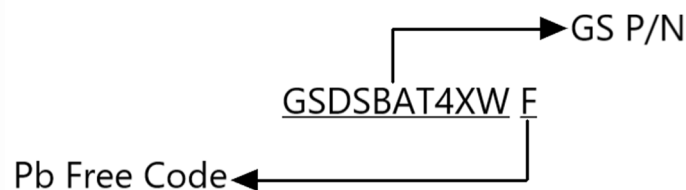
### Features

- Low Forward Voltage Drop
- Flat Lead SOD-123 Small Outline Plastic Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Band Indicate Cathode

### Marking Information

Part Number	Package	Part Marking	Equivalent Circuit diagram
GSDSBAT42WF	SOD-123	C1	
GSDSBAT43WF	SOD-123	C2	

### Ordering Information



Part Number	Package	Quantity
GSDSBAT42WF	SOD-123	3000 PCS
GSDSBAT43WF	SOD-123	

## Absolute Maximum Ratings

(T<sub>A</sub>=25°C Unless otherwise noted)

Symbol	Parameter	Value	Unit
P <sub>D</sub>	Power Dissipation	400	mW
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	30	V
V <sub>R</sub>	Maximum DC Blocking Voltage	30	V
T <sub>J</sub>	Operating Junction Temperature	+125	°C
T <sub>STG</sub>	Storage Temperature Range	-65 to +125	°C
I <sub>F(AV)</sub>	Average Forward Rectified Current	200	mA
I <sub>FSM</sub>	Forward current surge peak	4	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

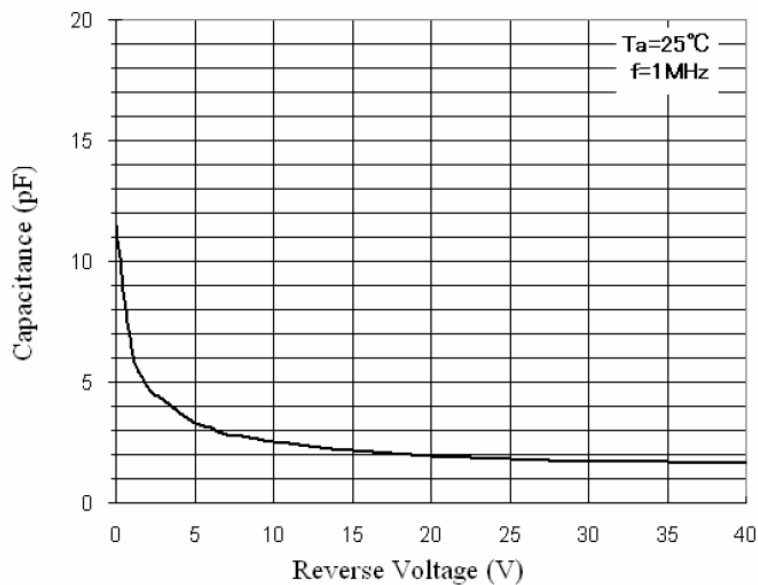
## Electrical Characteristics

(T<sub>A</sub>=25°C Unless otherwise noted)

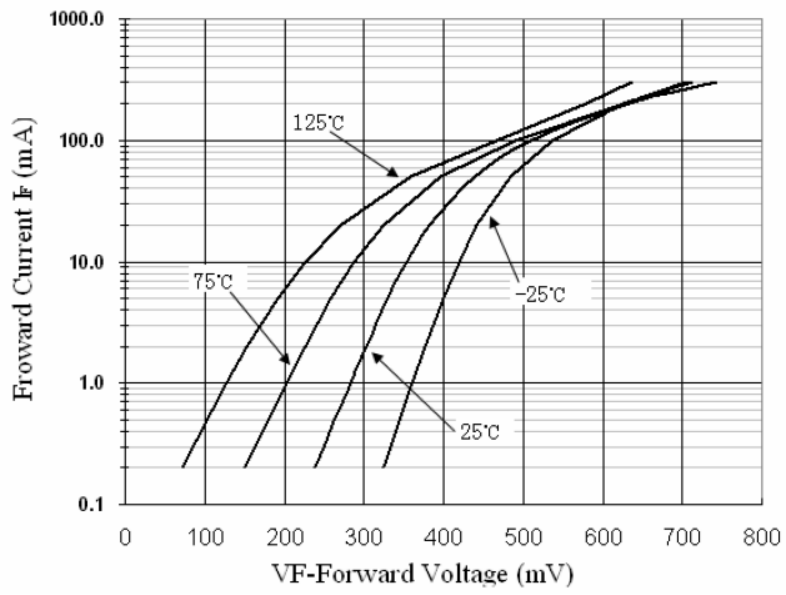
Symbol	Parameter	Test Condition	Min	Max	Unit
B <sub>V</sub>	Breakdown Voltage	I <sub>R</sub> = 100μA	30	-	V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 25V	-	500	nA
V <sub>F</sub>	Forward Voltage	GSDSBAT42W I <sub>F</sub> = 10mA	-	0.40	V
		I <sub>F</sub> = 50mA	-	0.65	
	GSDSBAT43W I <sub>F</sub> = 2mA	0.26	0.33		
	I <sub>F</sub> = 15mA	-	0.45		
	GSDSBAT42W, GSDSBAT43W	I <sub>F</sub> = 200mA	-	1.0	
T <sub>RR</sub>	Reverse Recovery Time	I <sub>F</sub> = I <sub>R</sub> = 10mA R <sub>L</sub> = 100Ω I <sub>RR</sub> = 1mA	5(Typical)		nS
C	Capacitance	V <sub>R</sub> = 1V, f = 1MHz	7(Typical)		pF

## Typical Characteristics

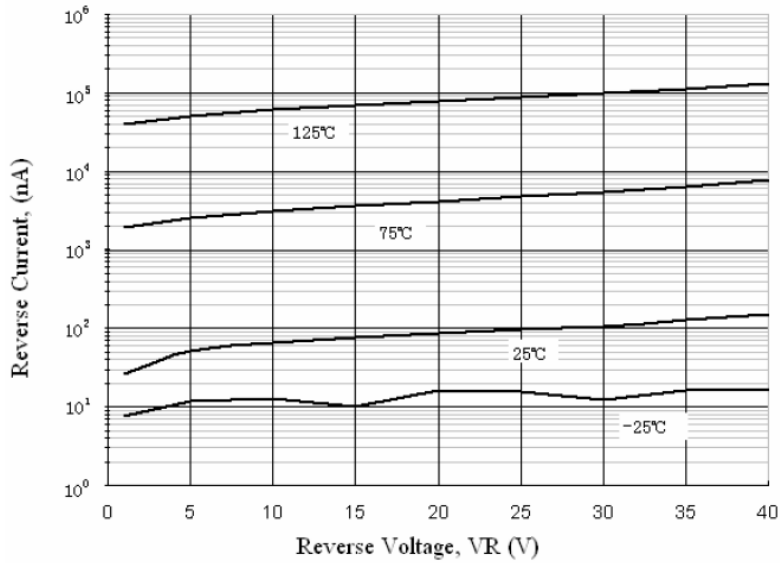
Total Capacitance



### Forward Voltage vs Ambient Temperature

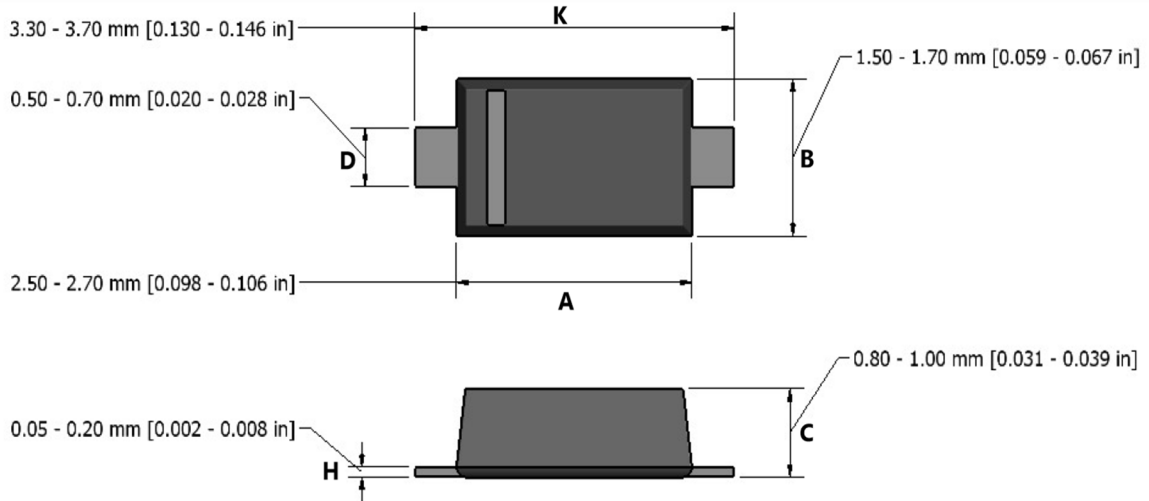


### Reverse Current vs Reverse Voltage



## Package Dimension

### SOD-123



Note: The above package outline is similar to JEITA SC-90.





Dimensions				
Symbol	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	2.5	2.7	0.098	0.106
<b>B</b>	1.5	1.7	0.059	0.067
<b>C</b>	0.8	1	0.031	0.039
<b>D</b>	0.5	0.7	0.02	0.028
<b>H</b>	0.05	0.2	0.002	0.008
<b>K</b>	3.3	3.7	0.13	0.146

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