

GSB0520WS thru GSB0540WS

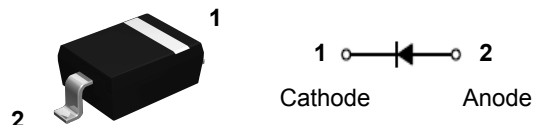
Schottky Barrier Diodes
 Reverse Voltage 20V to 40V Forward Current 0.5A

Features

- High current capability
- Low forward voltage drop

Mechanical Data

- Package: SOD-323, small outline plastic package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0



SOD-323

Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameters	Symbol	GSB0520WS	GSB0530WS	GSB0540WS	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current	I _{FM}	0.5			A
Non-Repetitive Peak Forward Surge Current @ 8.3ms Single Half Sine-Wave	I _{FSM}	5.5			A
Thermal Resistance Junction to Ambient	R _{θJA}	500			°C/W
Power Dissipation	P _D	200			mW
Junction Temperature	T _J	125			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C
Voltage Rate of Change	dv/dt	1000			V/uS

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameters	Symbol	Test conditions	GSB0520WS	GSB0530WS	GSB0540WS	Unit
Maximum Forward Voltage	V _F	I _F =0.1A	0.330	0.360	-	V
		I _F =0.5A	0.390	0.450	0.510	
		I _F =1.0A	-	-	0.620	
Maximum Reverse Breakdown Voltage	V _R	I _R =250uA	20	-	-	V
		I _R =500uA	-	30	-	
		I _R =20uA	-	-	40	
Maximum Reverse Current	I _R	V _R =10V	75	-	-	uA
		V _R =15V	-	80	-	
		V _R =20V	250	100	10	
		V _R =30V	-	500	-	
		V _R =40V	-	-	20	
Typical Capacitance Between Terminals	C _T	V _R =1V, f=1MHz	170	170	55	pF

Typical Characteristic Curves (GSB0520WS)

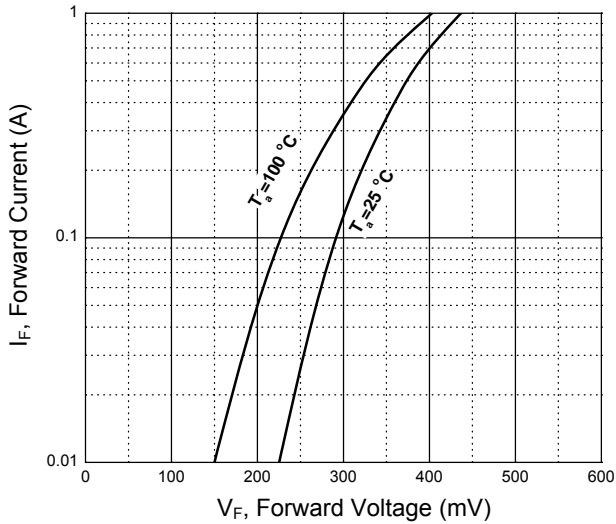


Figure 1. Forward Characteristics

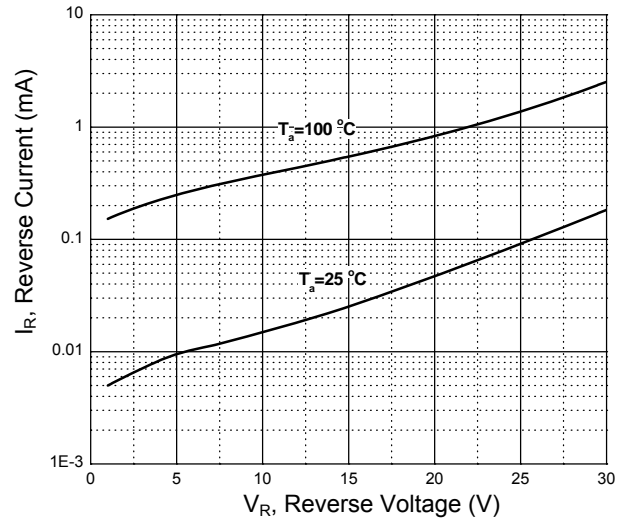


Figure 2. Reverse Characteristics

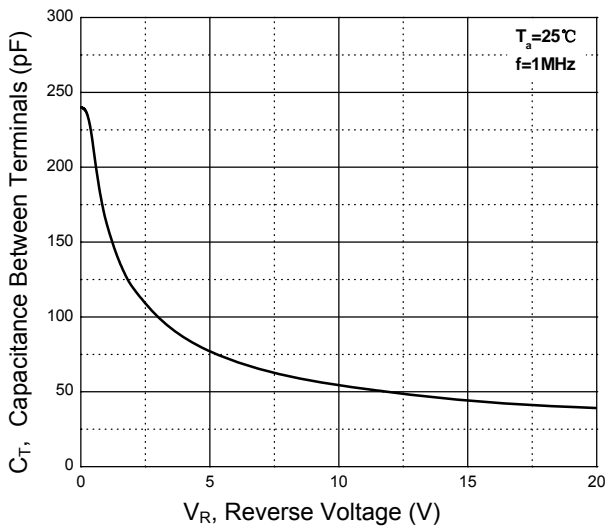


Figure 3. Capacitance Characteristics

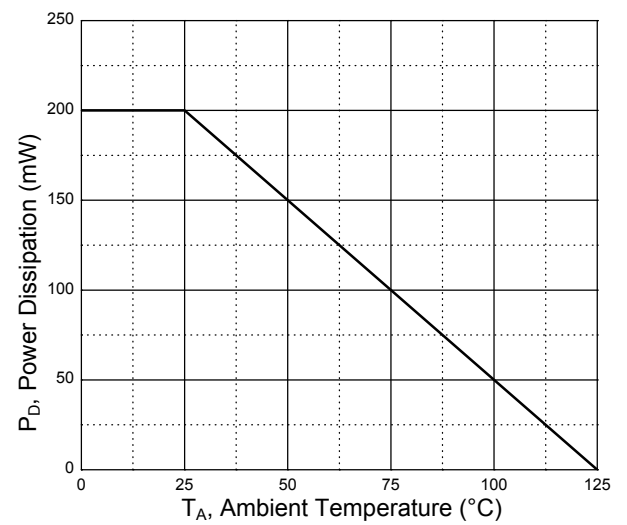


Figure 4. Power Derating Curve

Typical Characteristic Curves (GSB0530WS)

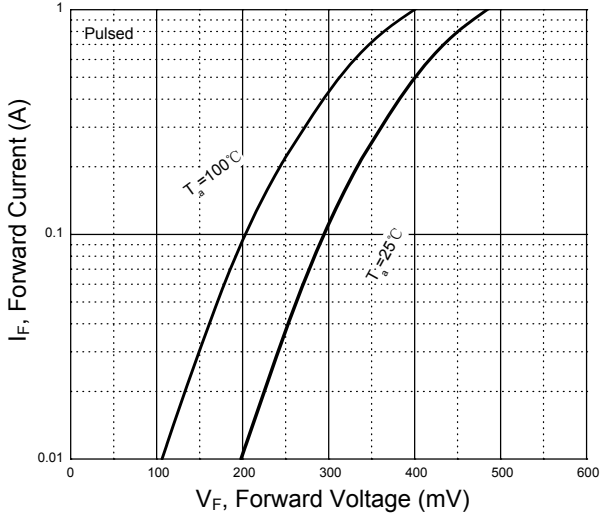


Figure 1. Forward Characteristics

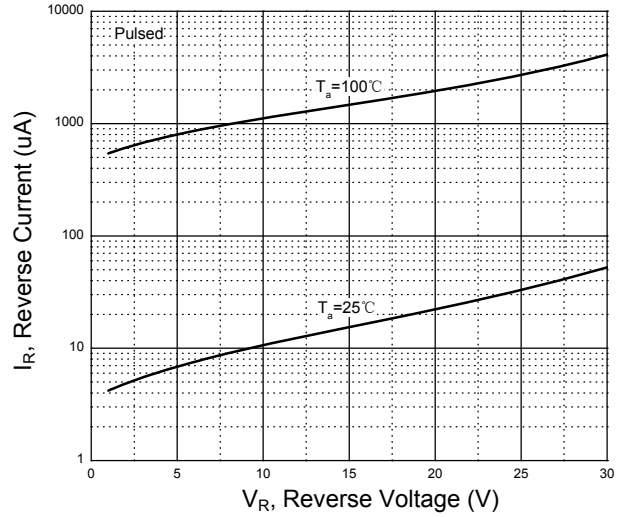


Figure 2. Reverse Characteristics

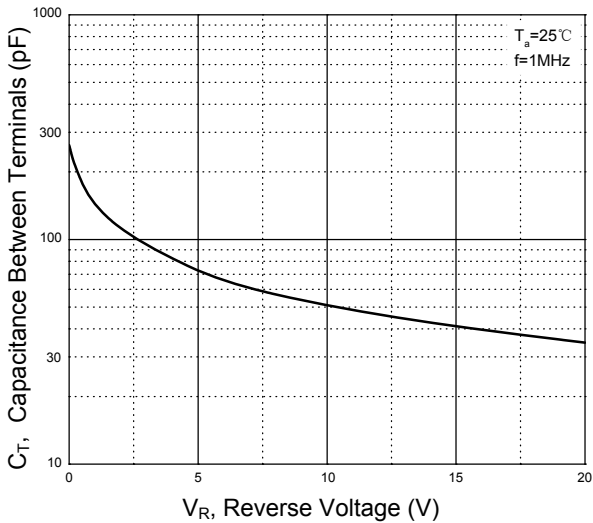


Figure 3. Capacitance Characteristics

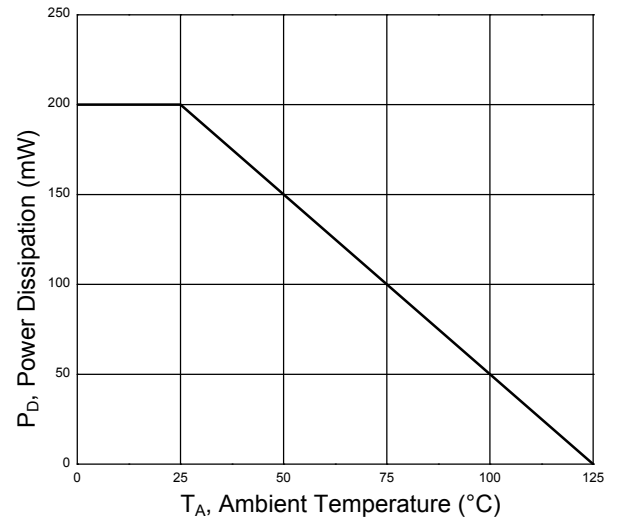


Figure 4. Power Derating Curve

Typical Characteristic Curves (GSB0540WS)

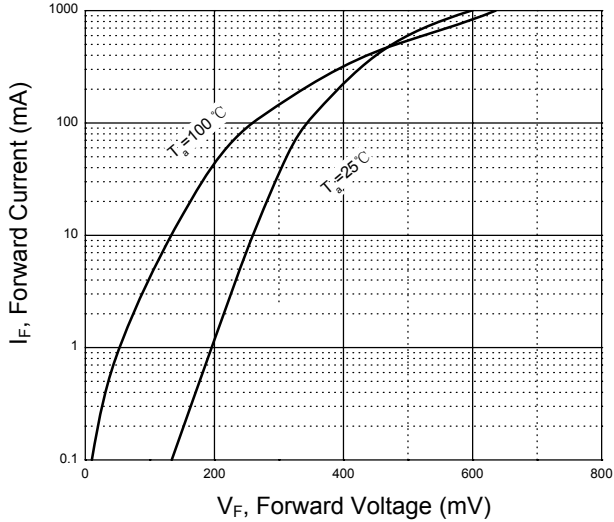


Figure 1. Forward Characteristics

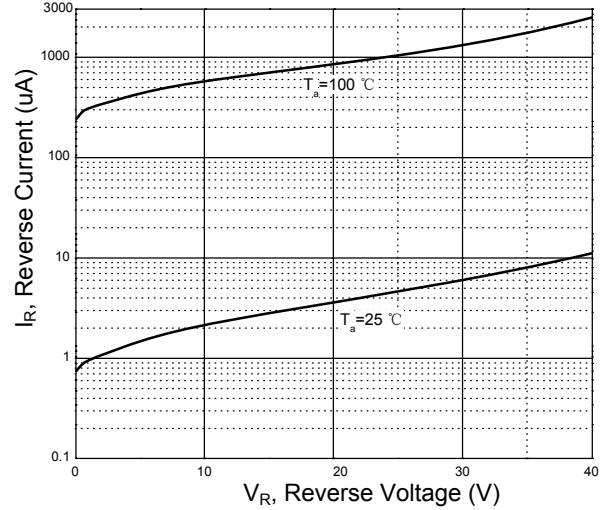


Figure 2. Reverse Characteristics

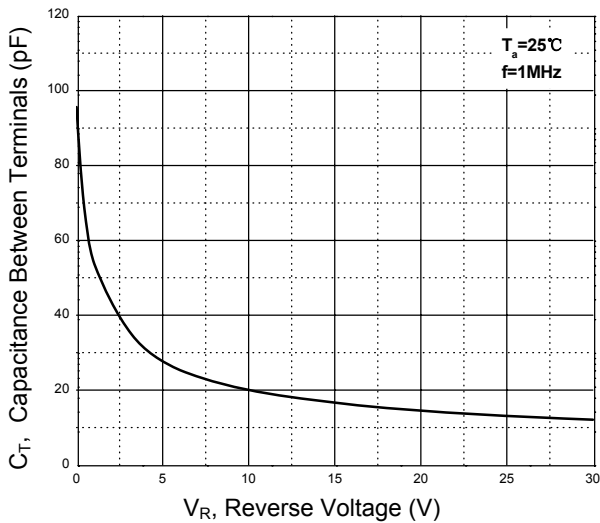


Figure 3. Capacitance Characteristics

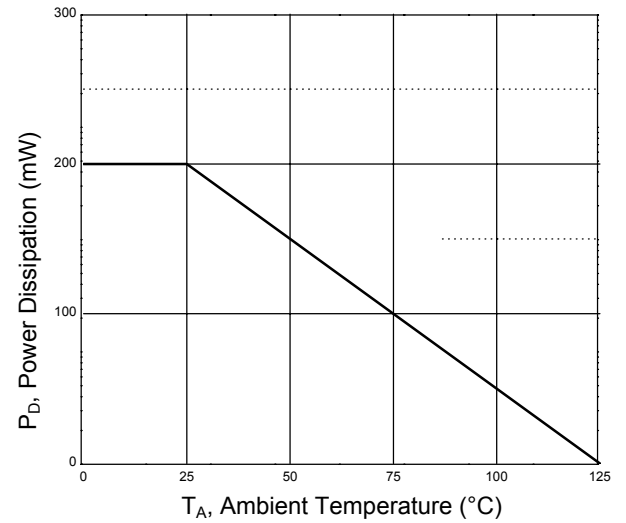
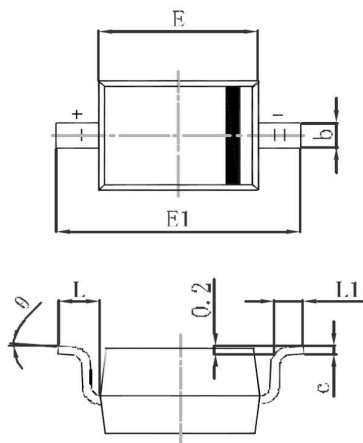


Figure 4. Power Derating Curve

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Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.000	-	0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.700	0.098	0.106
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

Order Information

Device	Package	Marking	Carrier	Quantity
GSB0520WS	SOD-323	SD	Tape & Reel	3,000pcs/ Reel
GSB0530WS	SOD-323	SE	Tape & Reel	3,000pcs/ Reel
GSB0540WS	SOD-323	SF	Tape & Reel	3,000pcs/ Reel

For more information, please contact us at: inquiry@goodarksemi.com