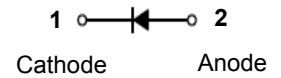


Features

- Low forward voltage drop
- High conductance
- Lead free
- SMD package
- Ideal for low voltage rectification, DC/DC converter



SOD-323



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	GDB5817WS	GDB5818WS	GDB5819WS	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	$V_{R(RMS)}$	14	21	28	V
Maximum Average Forward Rectified Current	I_F	1			A
Peak Forward Surge current 8.3 ms Single Half Sine-Wave	I_{FSM}	9			A
Power Dissipation	P_d	200			mW
Typical Thermal Resistance	$R_{\theta JA}$	500			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-65 to 125			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to 125			$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameters	Symbol	Conditions	GDB5817WS		GDB5818WS		GDB5819WS		Unit
			Min	Max	Min	Max	Min	Max	
Maximum Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=1\text{mA}$	20	-	30	-	40	-	V
Maximum Forward Voltage	V_F	$I_F=0.1\text{A}$	-	0.32	-	0.35	-	0.40	V
		$I_F=1\text{A}$	-	0.45	-	0.55	-	0.60	
		$I_F=3\text{A}$	-	0.75	-	0.875	-	0.90	
Maximum Reverse Current	I_{RM}	$V_R=V_{RRM}$	1						mA
Type Junction Capacitance	C_J	$V_R=4\text{V}$, $f=1.0\text{MHZ}$	120						pF

Ratings and Characteristic Curves

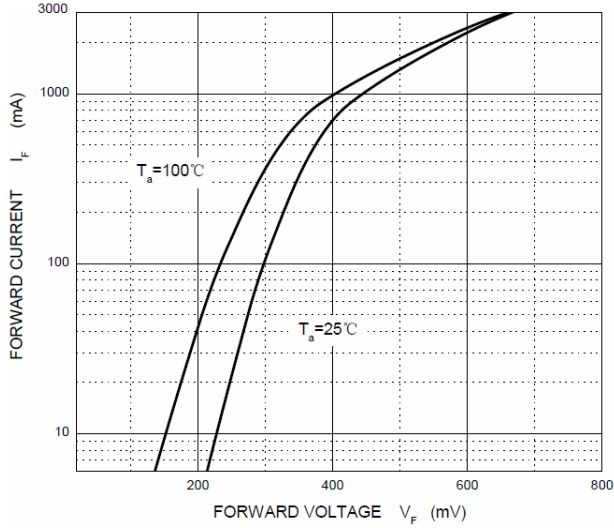


Figure 1. Forward Characteristics

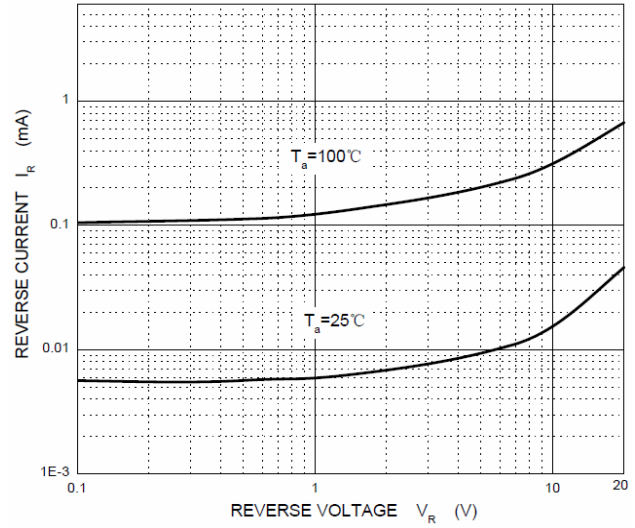


Figure 2. Reverse Characteristics

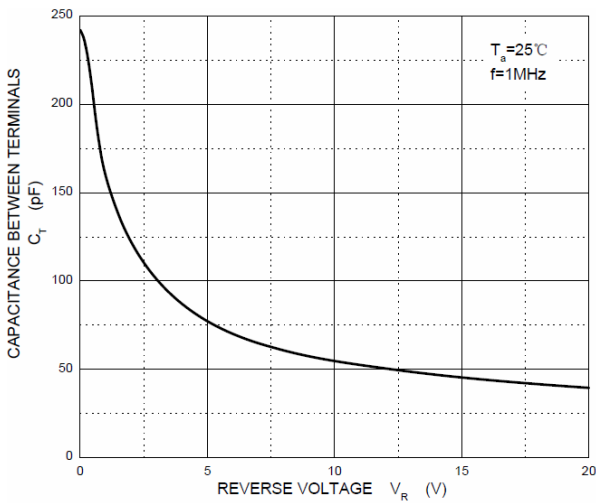


Figure 3. Capacitance Characteristics

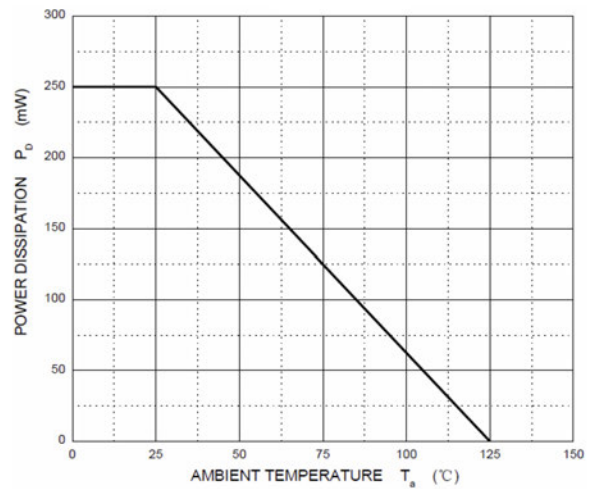
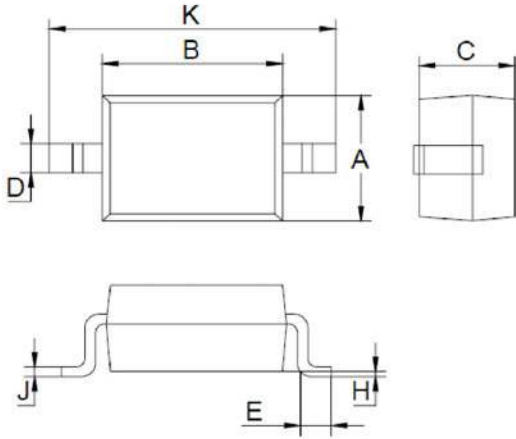


Figure 4. Power Derating Curve

Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.200	1.400	0.047	0.055
B	1.600	1.800	0.063	0.071
C	0.800	0.900	0.031	0.035
D	0.250	0.350	0.010	0.014
E	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004
J	0.100 TYP		0.004 TYP	
K	2.500	2.700	0.098	0.106

Order information

Device	Package	Marking	Carrier	Quantity
GDB5817WS	SOD-323	SJ	Tape & Reel	3,000pcs / Reel
GDB5818WS	SOD-323	SK	Tape & Reel	3,000pcs / Reel
GDB5819WS	SOD-323	SL	Tape & Reel	3,000pcs / Reel