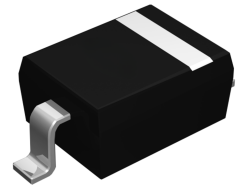


Features

- High current capability
- Low forward voltage drop

Mechanical Data

- SOD-323 small outline plastic package
- Polarity: Color band denotes cathode end
- Mounting position: Any



SOD-323

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

Parameters	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	45	V
Maximum RMS Voltage	V _{RMS}	31.5	V
Maximum DC Blocking Voltage	V _{DC}	40	V
Maximum Average Forward Rectified Current	I _{FM}	1.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave	I _{FSM}	9	A
Typical Thermal Resistance, Junction to Ambient	R _{θJA}	400	°C/W
Power Dissipation	P _D	250	mW
Operating Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-50 to +150	°C

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

Parameters	Symbol	Test Conditions	Value	Unit
Maximum Forward Voltage	V _F	I _F =1.0A	0.6	V
		I _F =3.0A	0.9	
Maximum Reverse Breakdown Voltage	V _R	I _R =1mA	45	V
Maximum Reverse Current	I _R	V _R =40V	1.0	mA
Typical Junction Capacitance	C _J	V _R =4.0V, f=1MHz	120	pF

Ratings and Characteristics Curves

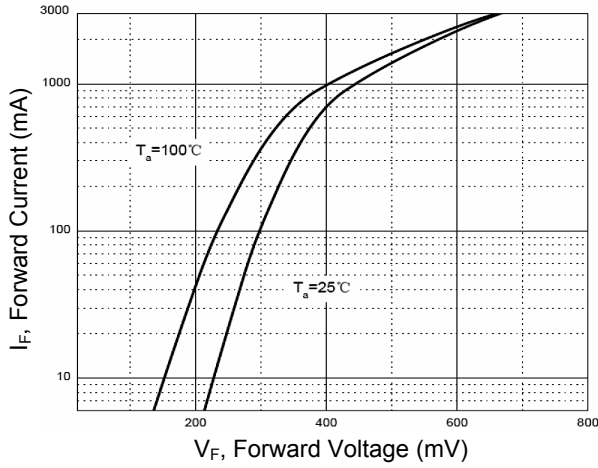


Figure 1. Forward Characteristics

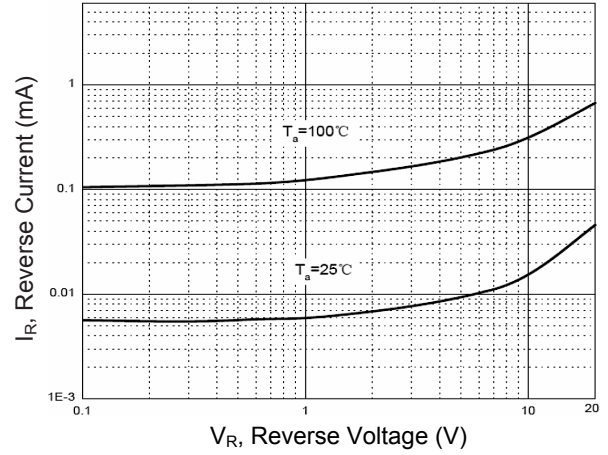


Figure 2. Reverse Characteristics

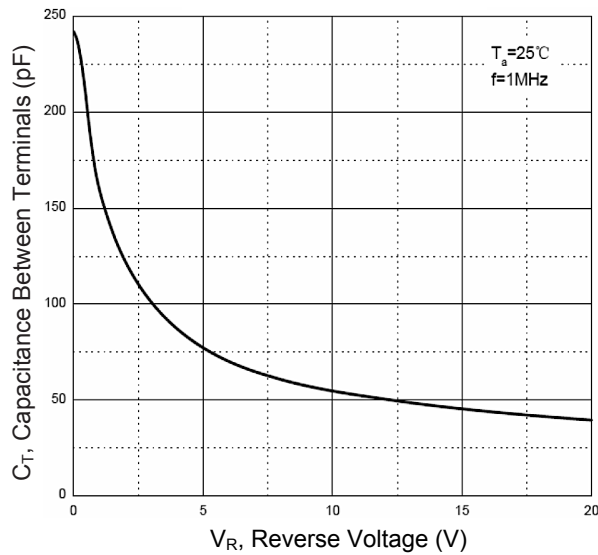


Figure 3. Capacitance Characteristics

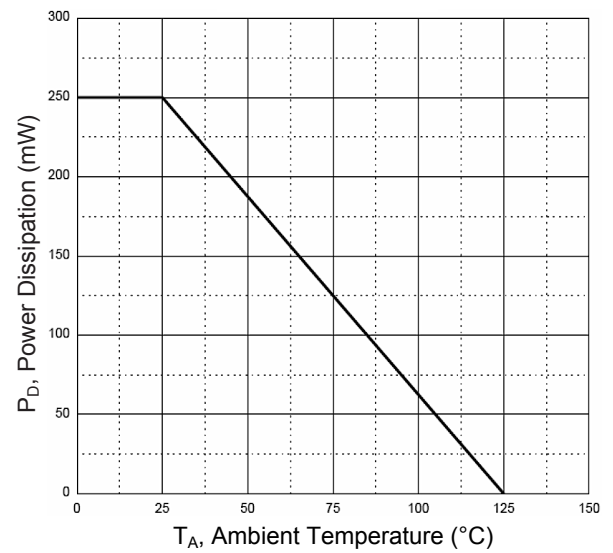
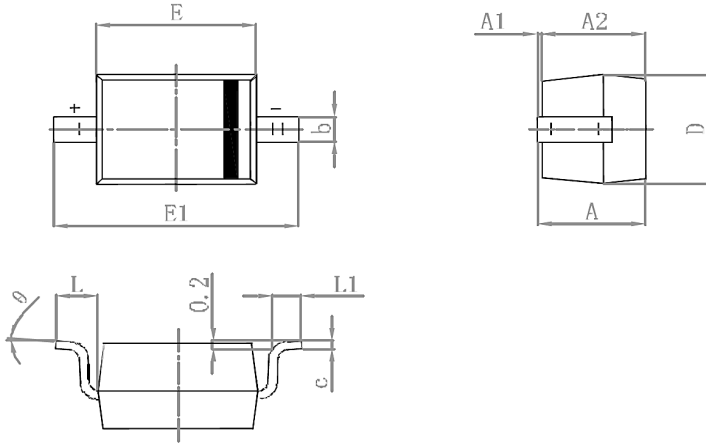


Figure 4. Power Derating Curve

Package Outline Dimensions (SOD-323)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.000	-	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	Packaging	SPQ
GDB5819HWS	SOD-323	SM	Tape & Reel	3,000 Pcs / Reel