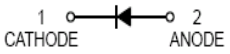
GOOD-ARK SEMICONDUCTOR

GSD103xWS
Schottky Barrier Diodes

Features

- High reliability
- Low reverse current and forward voltage
- Low - profile SMT package



Schematic Diagram

Package: SOD-323

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

Parameter	Symbol	GSD103AWS	GSD103BWS	GSD103CWS	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	40	30	20	V
RMS Reverse Voltage	V_{RMS}	28	21	14	V
Maximum Average Forward Output Current	$I_{F(AV)}$	350			mA
Peak Forward Surge Current (8.3ms Single Half Sine-Wave)	I_{FSM}	1.5			A
Power Dissipation	P_D	200			mW
Thermal Resistance (Junction - to - Ambient)	$R_{\theta JA}$*	500			°C/W
Thermal Resistance (Junction - to - Case)	$R_{\theta JC}$	276			°C/W
Operating Junction Temperature	T_J	-55 To +125			°C
Storage Temperature Range	T_{STG}	-55 To +150			°C

Note: *Part mounted on FR-4 board with recommended pad layout

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F*	I_F=20mA	-	-	0.37	V
		I_F=200mA	-	-	0.6	
Maximum Peak Reverse Current	I_R**	V_R=30V (GSD103AWS)	-	-	5	μA
		V_R=20V (GSD103BWS)				
		V_R=10V (GSD103CWS)				
Capacitance Between Terminals	C_T	V_R=0V, F=1MHz	-	22	50	pF

Note: * Pulse width ≤ 380 us; duty cycle ≤ 2%
** Pulse test; T_P ≤ 5ms

Typical Characteristic Curves

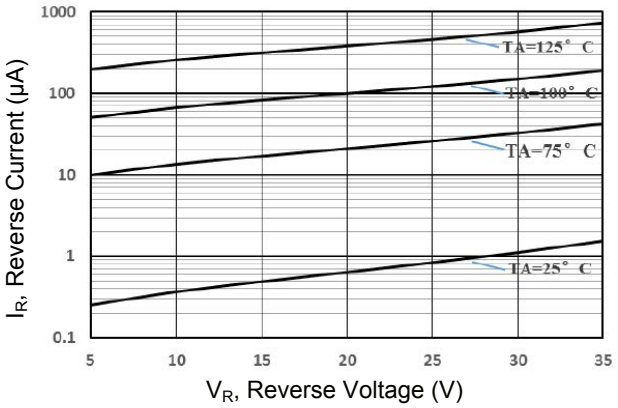


Figure 1. Typical Reverse Characteristic

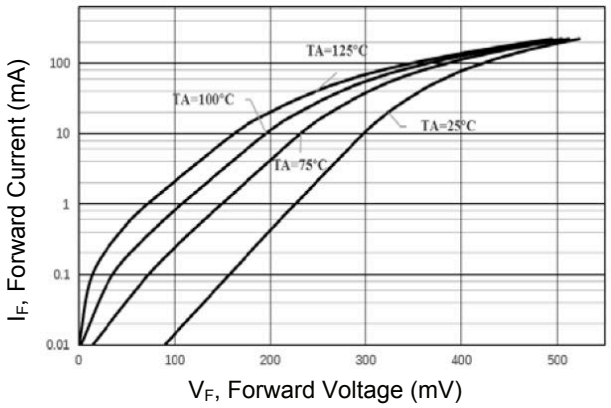


Figure 2. Typical Forward Characteristic

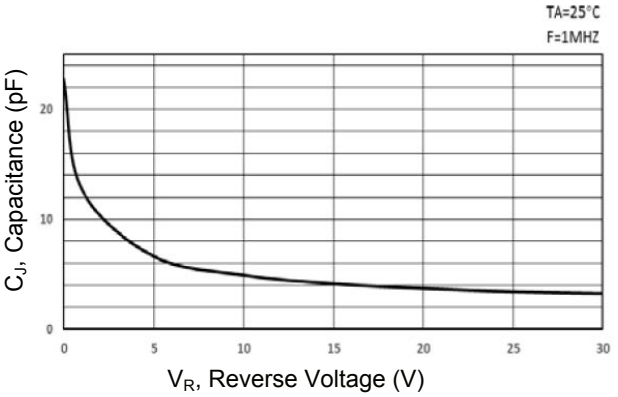


Figure 3. Capacitance vs. Reverse Voltage

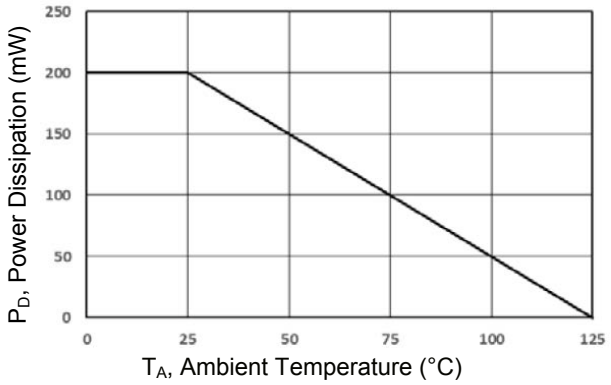
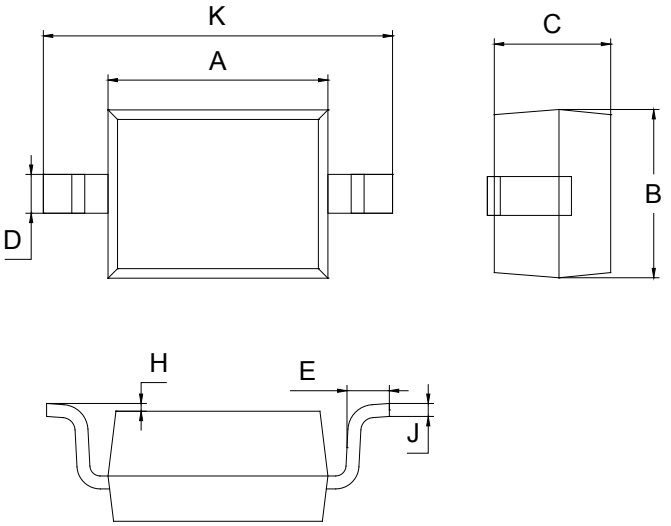


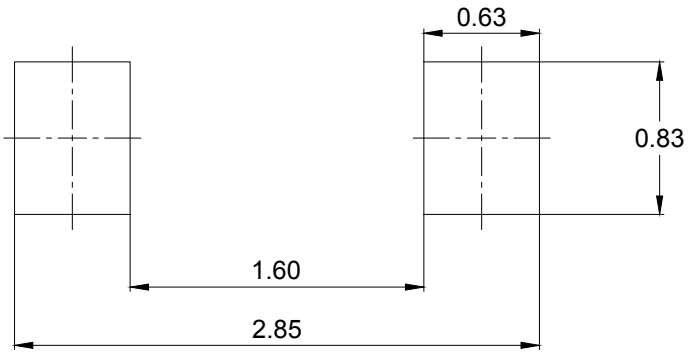
Figure 4. De-rating Curve (P_D- T_A)

Package Outline Dimensions (in mm) SOD-323



Symbol	Dimensions in Millimeters	
	Min	Max
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Soldering Footprint



Unit ： mm