GOOD-ARK SEMICONDUCTOR

GS4002EL

Schottky Barrier Diode

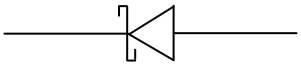
Features

- Low forward voltage
- Forward Current: 0.2A
- Reverse Voltage 40V

SOD-923

Applications

- Ultra High-speed Switching
- Voltage Clamping
- Protection Circuits
- Low Voltage Rectification
- High Efficiency DC-to-DC Conversion
- Low Power Consumption Applications



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Reverse Voltage	V_R	40	V
Continuous Forward Current	I_O	200	mA
Non-Repetitive Peak Forward Current[1]	I_{FSM}	1	A
Junction Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +125	°C

Note:
1. 8.3mS Single Half Sine-Wave.

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

Parameter	Symbol	Conditions	Min	Max	Unit
Forward Voltage	V_F	I_F = 10mA	0.16	0.3	V
		I_F = 100mA	0.31	0.45	
		I_F = 200mA	0.37	0.52	
Breakdown Voltage	BV_R	I_R = 100μA	40	-	V
Reverse Current	I_R	V_R = 10V	-	20	μA
		V_R = 40V	-	90	

Typical Electrical and Thermal Characteristic Curves

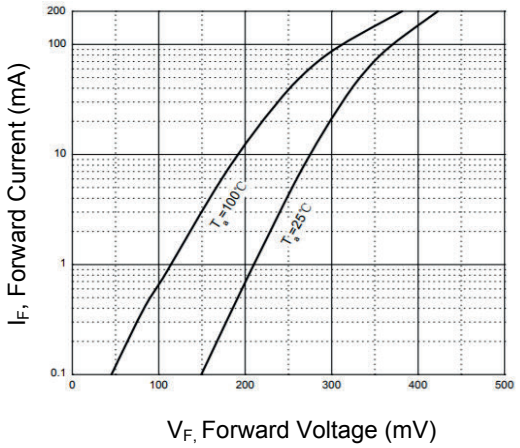


Figure 1. Forward Characteristics

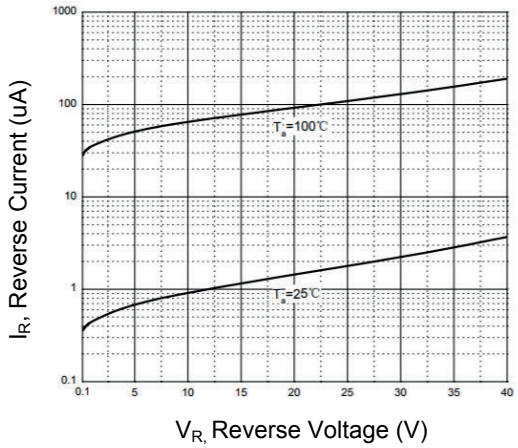


Figure 2. Reverse Characteristics

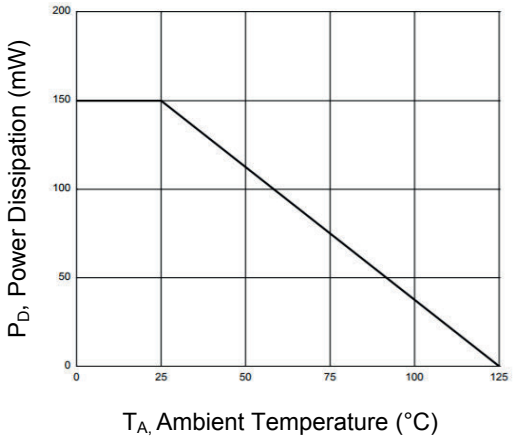


Figure 3. Power Derating Curve

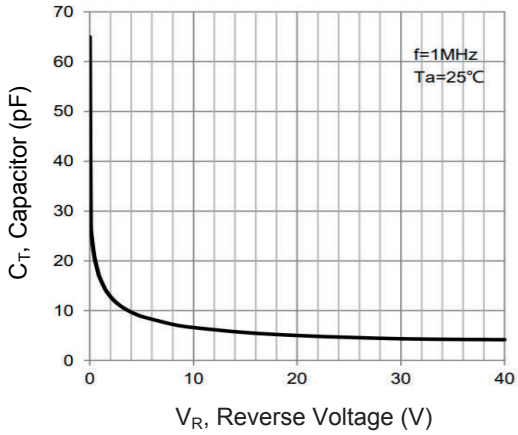
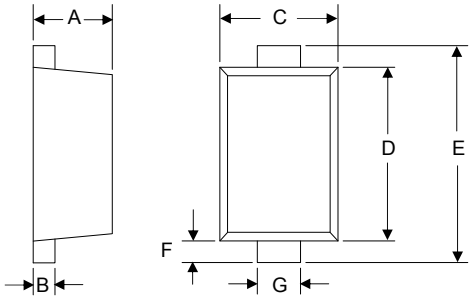


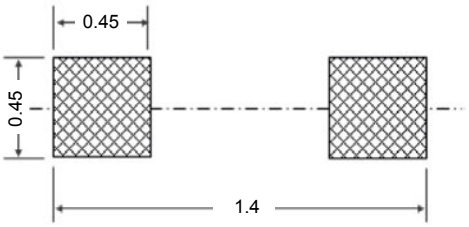
Figure 4. C_T Vs V_R

Package Outline Dimension(SOD-923)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.39	0.45	0.015	0.018
B	0.05	0.20	0.002	0.008
C	0.55	0.65	0.022	0.026
D	0.70	0.90	0.028	0.035
E	0.90	1.10	0.035	0.043
F	0.05	0.15	0.002	0.006
G	0.15	0.30	0.006	0.012

Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: ±0.05mm
3. The pad layout is for reference purposes only

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GS4002EL	SOD-923	S	Tape & Reel	8,000 pcs / Reel	RoHS Compliant