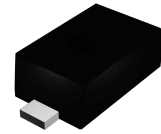


Features

- Low profile, small footprint
- Low forward voltage
- High reliability



SOD-523

Mechanical Data

- Case: SOD-523
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, method 208



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
RMS Reverse Voltage	V _{RMS}	28	V
Maximum Average Forward Output Current	I _{F(AV)}	0.5	A
Peak Forward Surge Current @ t=8.3ms Half Sine-Wave	I _{FSM}	2	A
Power Dissipation	P _D	200	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	500	°C/W
Repetitive Peak Forward Current	I _{FRM}	1	A
Operating Junction Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Typ	Max	Unit
Forward Voltage	V _F	I _F =10mA	0.25	-	V
		I _F =100mA	0.35	-	V
		I _F =500mA	-	0.5	V
Reverse Current	I _R	V _R =40V	-	50	μA
Diodes Capacitance	C _J	V _R =0V, f=1MHz	105	-	pF

Typical Characteristic Curves

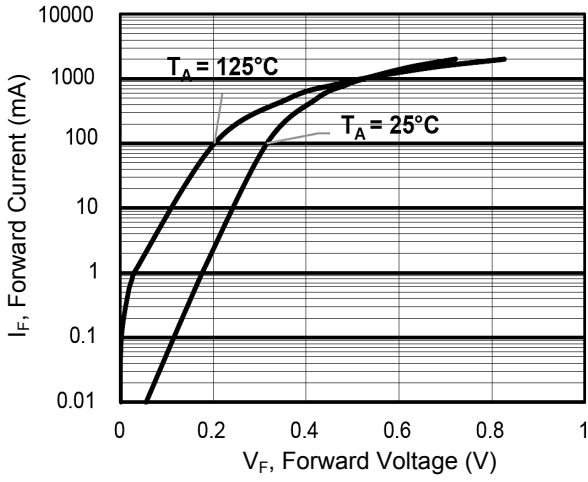


Figure 1. Forward Characteristics

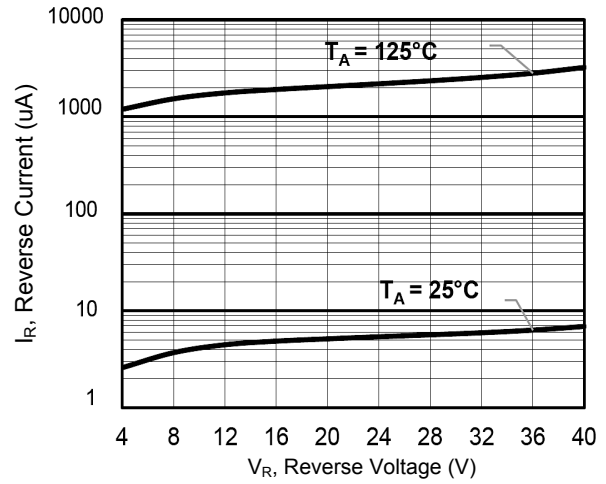


Figure 2. Reverse Characteristics

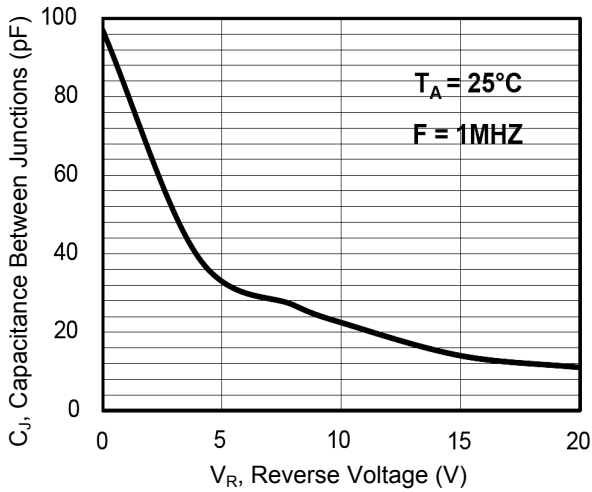
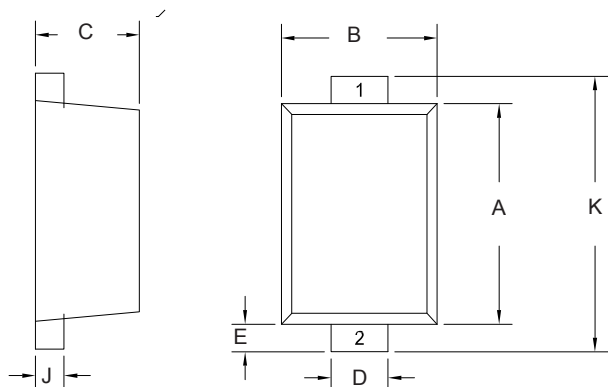


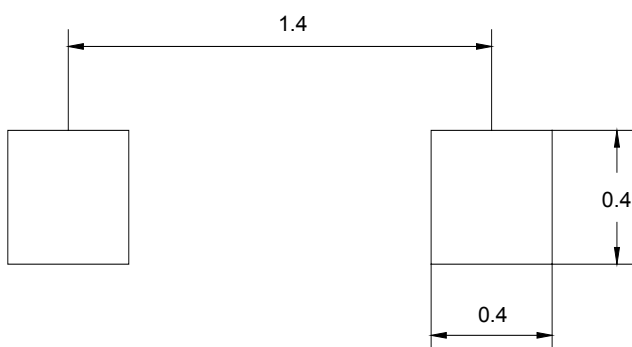
Figure 3. Capacitance Characteristics

Package Outline Dimensions (SOD-523)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.043	0.051
B	0.70	0.90	0.028	0.035
C	0.50	0.70	0.020	0.028
D	0.25	0.35	0.010	0.014
E	0.15	0.25	0.006	0.010
J	0.05	0.15	0.002	0.006
K	1.50	1.70	0.059	0.067

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	Packaging	SPQ
GSBT0540X	SOD-523	SF	Tape & Reel	3,000 Pcs / Reel