

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
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

Typical Characteristic Curves

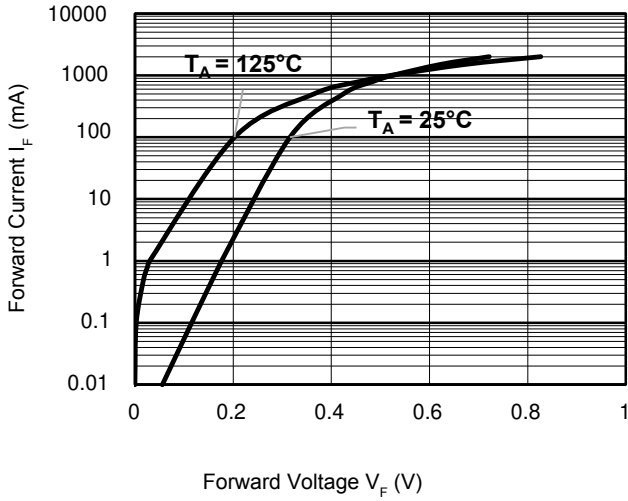


Figure 1. Forward Characteristics

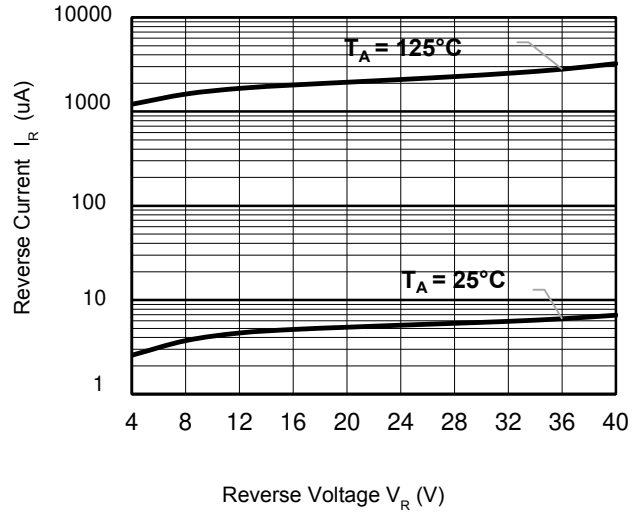


Figure 2. Reverse Characteristics

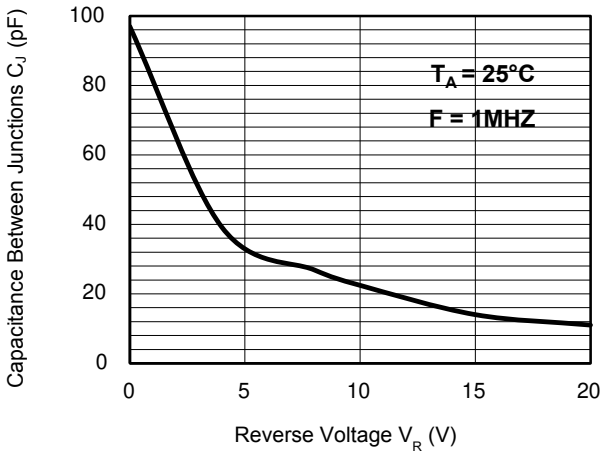
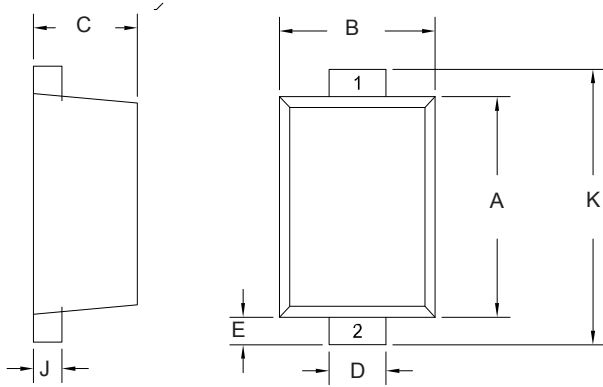


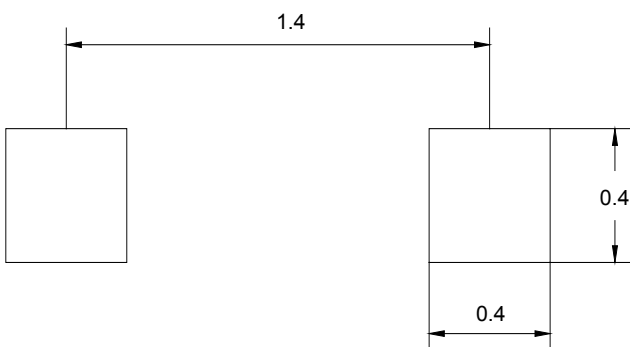
Figure 3. Capacitance Characteristics

Package Outline Dimensions (SOD-523)



Symbol	Dimensions In Millimeters	
	Min	Max
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
E	0.15	0.25
J	0.05	0.15
K	1.50	1.70

Recommended Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Order Information

MPN	Package	Marking	Carrier	Quantity	HSF Status
GSBT0540X	SOD-523	SF	Tape & Reel	3000pcs / Reel	RoHS compliant