

Feature.

- Low profile small footprint
- Low reverse current
- High reliability



Schematic Diagram



SOD-523

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

Parameter	Symbol	Value	Unit
DC Reverse Voltage	V _R	40	V
Forward Current	I _F	0.2	A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	1	A
Power Dissipation	P _D	150	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	667	°C/W
Operating Junction Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward Voltage	V _F	I _F =10mA	-	0.30	0.39	V
		I _F =100mA	-	0.45	0.55	
Reverse Current	I _R	V _R =10V	-	0.61	1	μA
		V _R =40V	-	2.84	10	

Typical Characteristic Curves

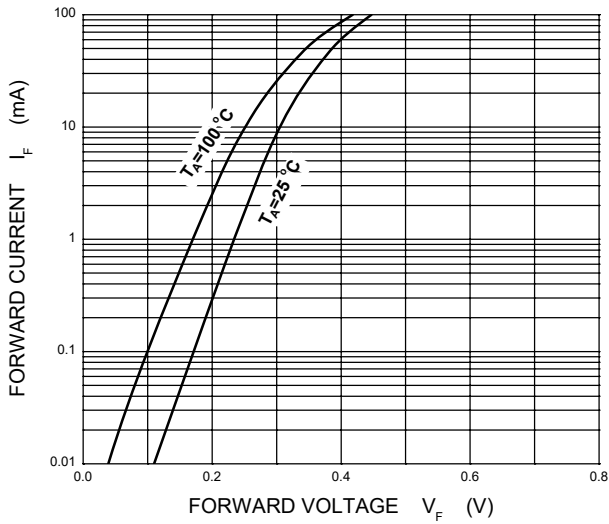


Figure 1. Forward Characteristics

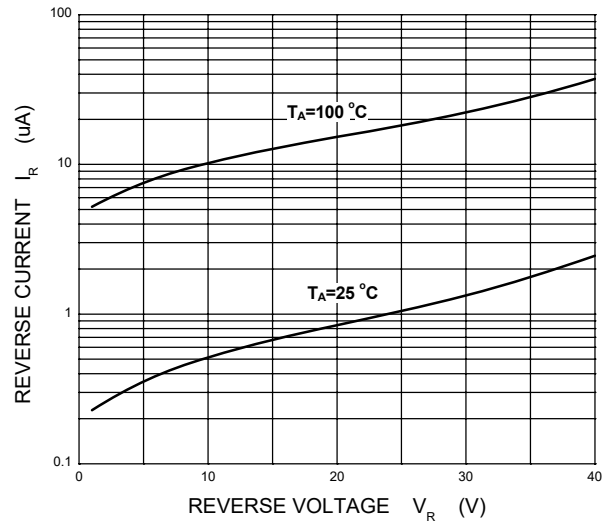


Figure 2. Reverse Characteristics

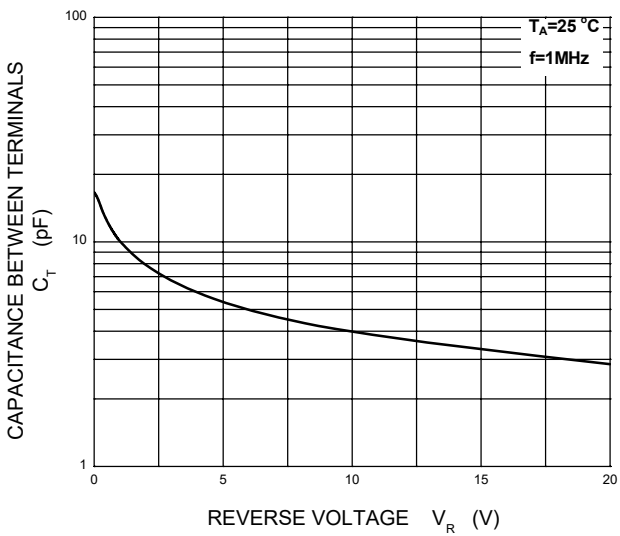


Figure 3. Capacitance Characteristics

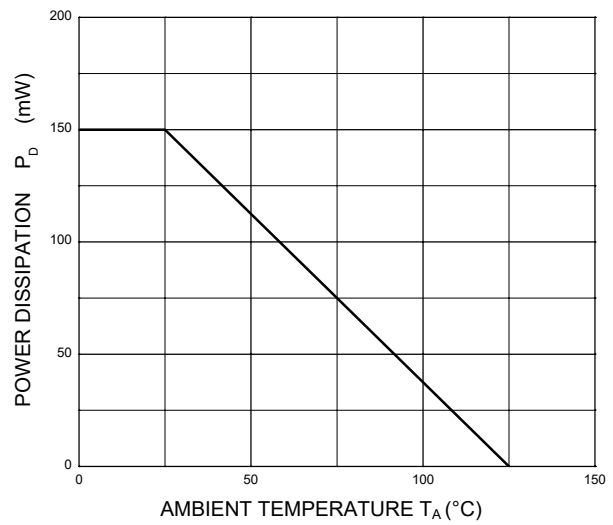
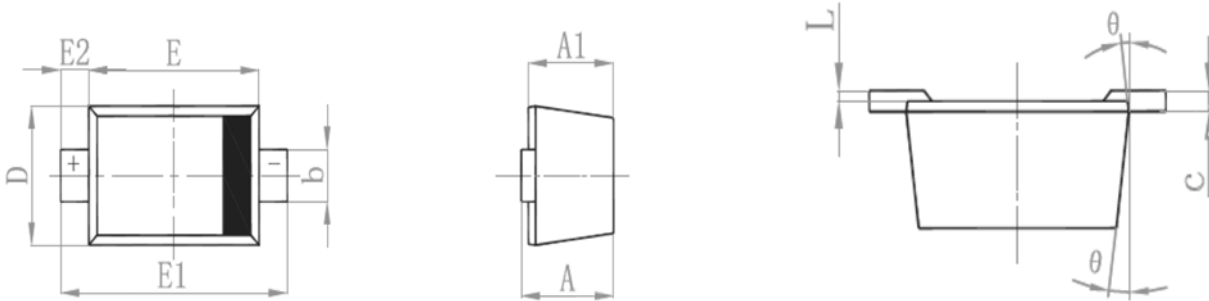


Figure 4. Power Derating Curve

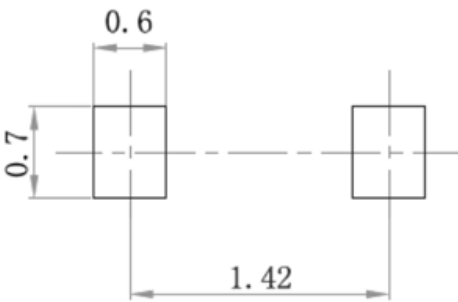
Package Outline Dimensions

SOD-523



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
K	7° REF		7° REF	

Suggested Pad Layout



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

Ordering Information

Device	Package	Marking	Quantity	HSF Status
GSRB520S-40	SOD-523	D1	8000pcs / Reel	RoHS Compliant