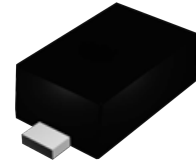


Features

- Low forward voltage drop
- SOD-523 micro SMD package
- RoHS compliant/green EMC
- Matte Tin (Sn) lead finish
- Cathode band/device marking
- Surface mount package ideally suited for automatic insertion



SOD-523

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Average Forward Rectified Current	I _{F(AV)}	1	A
Non-Repetitive Peak Forward Surge Current (@ t=8.3ms)	I _{FSM}	6	A
Operating Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-50 to +125	°C

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

Parameter	Symbol	Conditions	Min	Max	Units
Forward Voltage	V _F	I _F =0.3A	-	0.5	V
		I _F =1A	-	0.8	V
Reverse Current	I _R	V _R =40V	-	100	uA
Reverse Breakdown Voltage	V _{BR}	I _R =0.5mA	40	-	V
Capacitance	C _T	V _R =0V, f=1MHz	-	100	pF

Typical Characteristic Curves

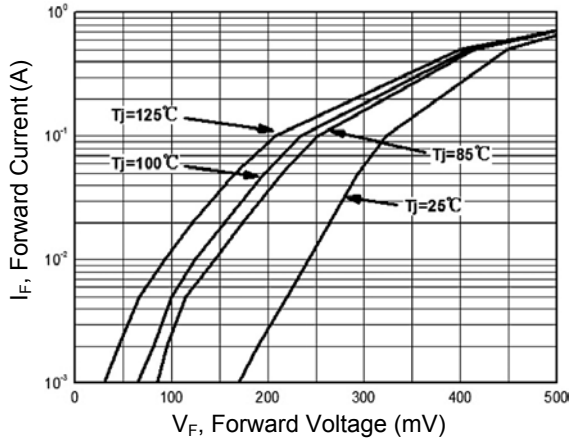


Figure 1. Typical Instantaneous Forward Characteristics

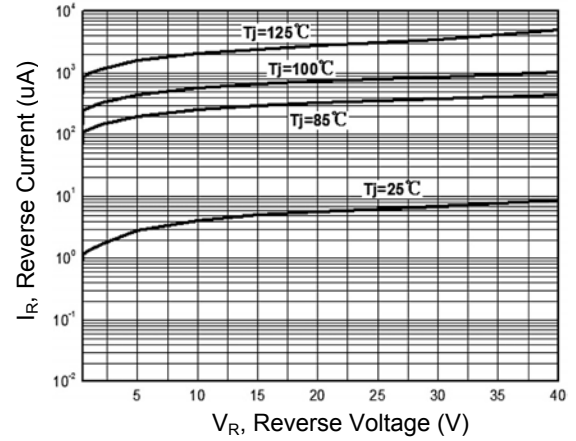


Figure 2. Typical Reverse Leakage Characteristics

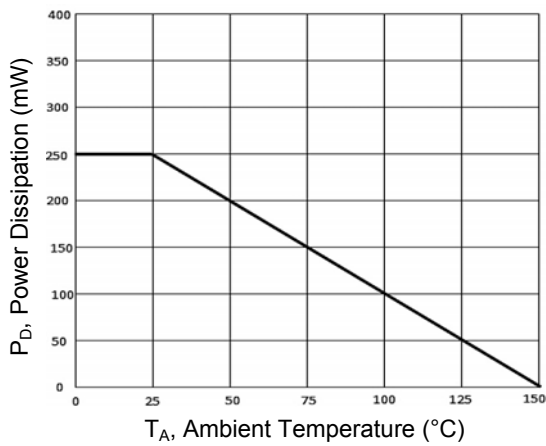


Figure 3. Power Derating Curve

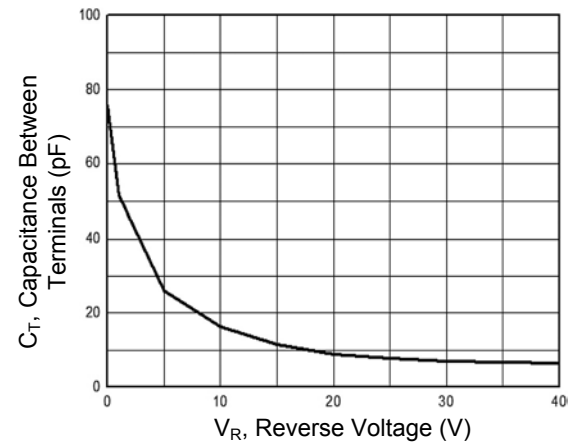
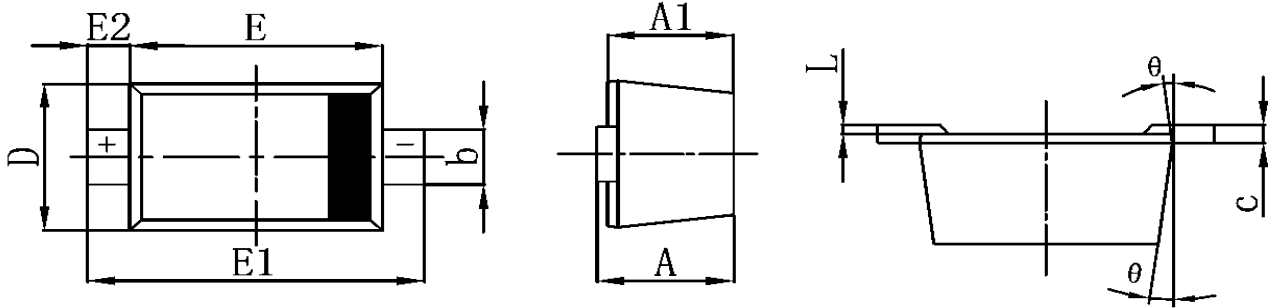


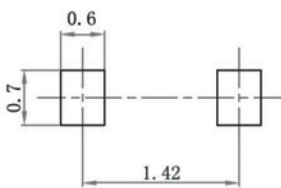
Figure 4. Capacitance Characteristics

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
θ	7° REF		7° REF	

Recommended Pad Layout



Notes:

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

Order Information

Device	Package	Marking	Carrier	Quantity
GSBT1040X	SOD-523	KX	Tape & Reel	8,000 Pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com