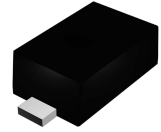


Features

- 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



Schematic Diagram

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

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	100	V
Working Peak Reverse Voltage	V _{RWM}	100	V
Forward Continuous Current	I _{FM}	150	mA
Peak Forward Current (t=8.3ms)	I _{FSM}	750	mA
Repetitive Peak Forward Current	I _{FRM}	350	mA
Power Dissipation	P _D	200	mW
Thermal Resistance From Junction to Ambient	R _{θJA}	500	°C/W
Junction Temperature	T _J	-55 to +125	°C
Storage Temperature	T _{STG}	-55 to +150	°C

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Voltage	V _{BR}	I _R =100uA	100	-	-	V
Forward Voltage	V _F	I _F =0.1mA	-	-	0.25	V
		I _F =10mA	-	-	0.45	V
		I _F =250mA	-	-	1	V
Reverse Current	I _R	V _R =1.5V	-	-	0.3	μA
		V _R =10V	-	-	0.5	
		V _R =50V	-	-	1	
		V _R =75V	-	-	2	
Capacitance	C _T	V _R =0V, F=1MHz	-	20	-	pF
		V _R =1V, F=1MHz	-	12	-	

Typical Characteristic Curves

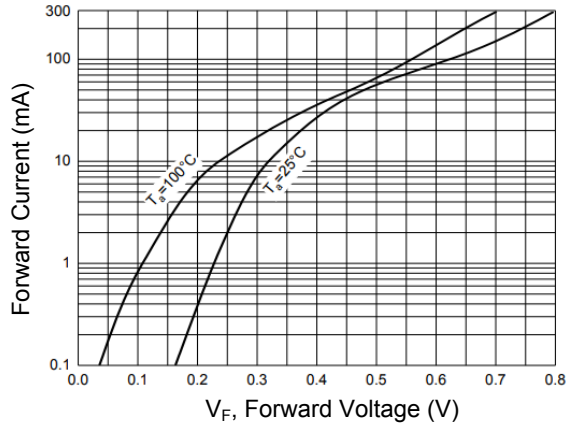


Figure 1. Forward Characteristics

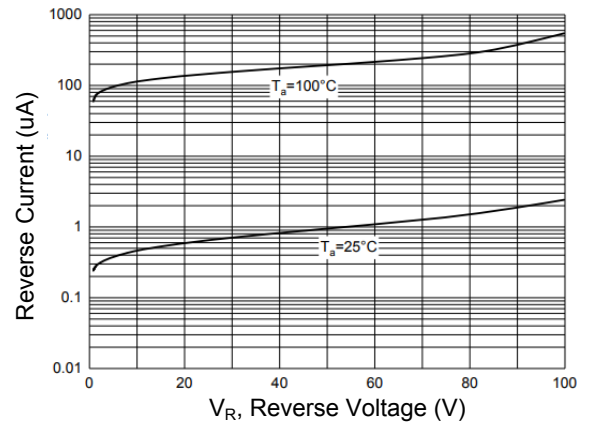


Figure 2. Reverse Characteristics

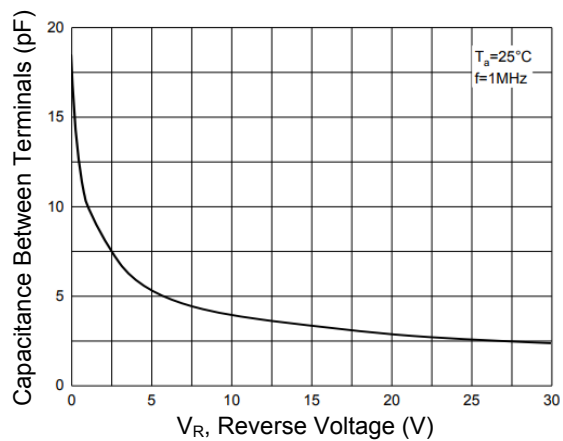


Figure 3. Capacitance Characteristics

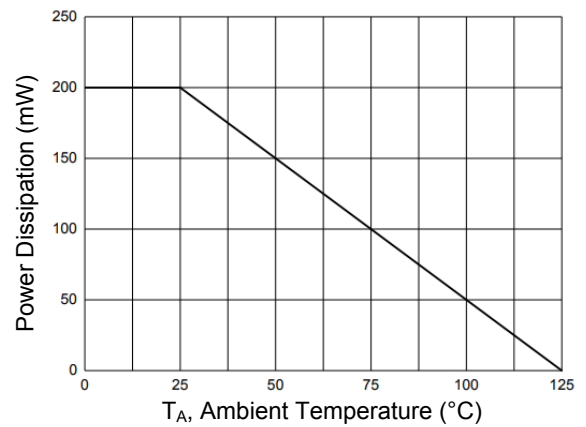
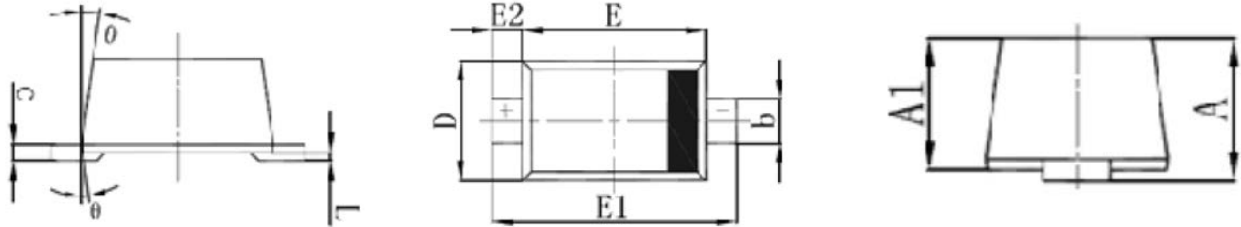


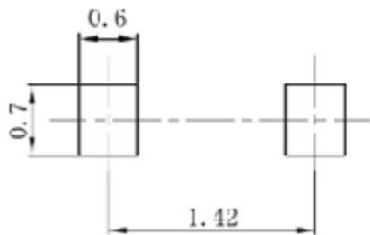
Figure 4. Power Derating Curve

Package Outline Dimension (SOD-523)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.030
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	0.000	0.003
θ	7° REF		7° REF	

Recommended Pad Layout



Note:
 1. Unit: mm

Order Information

Device	Package	Marking	Carrier	Quantity
GSBAT46M	SOD-523	S9	Tape & Reel	8,000 pcs / 7" Reel

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