

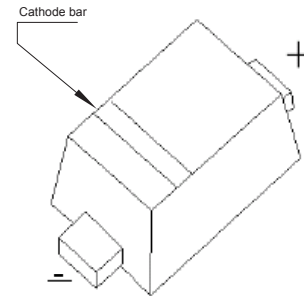
SOD-523 Plastic-Encapsulate Diodes

RB520S-40 SCHOTTKY BARRIER DIODES

FEATURES

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

Marking


SOD-523


Mechanical Data

Case : SOD-523

Terminals : Solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.00019 ounce, 0.00548 grams



Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

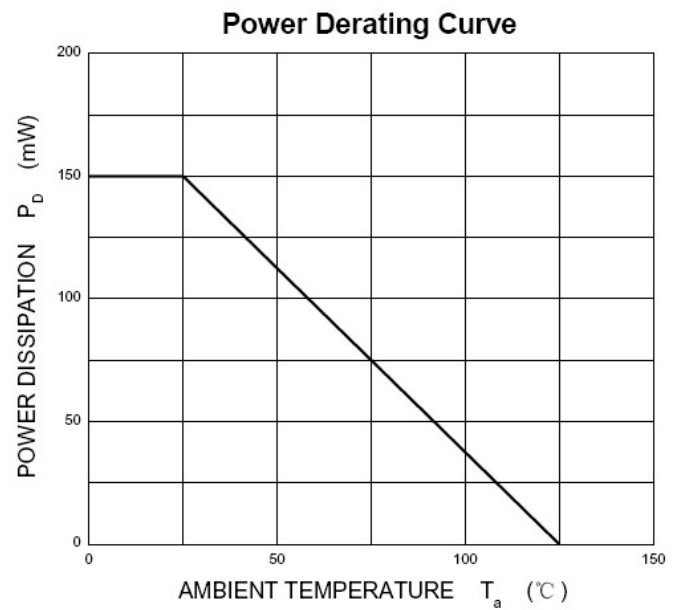
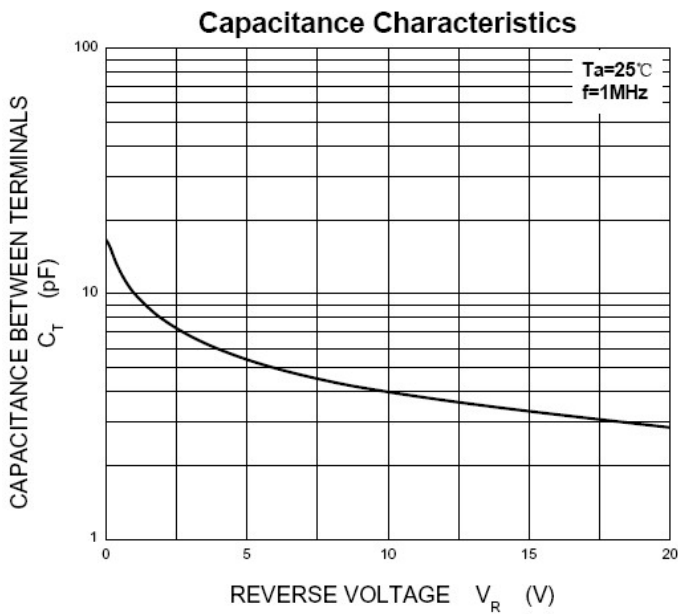
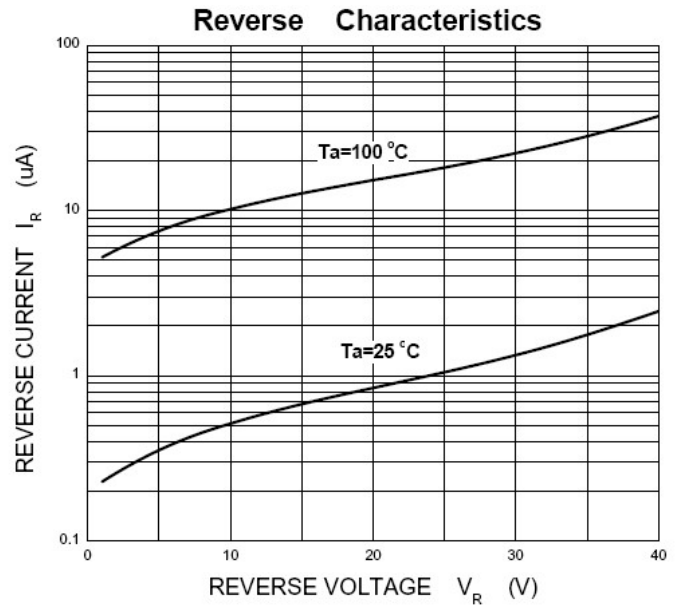
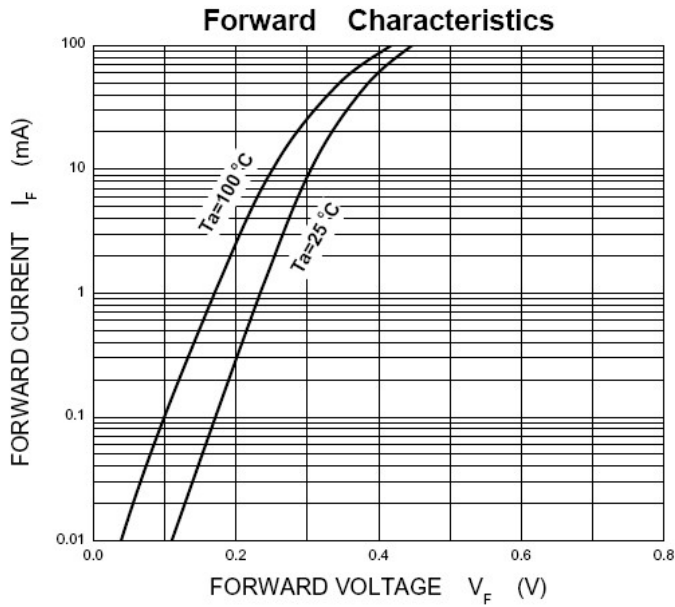
Parameter	Symbol	Limit	Unit
Peak Reverse Voltage	V_{RM}	40	V
DC Blocking Voltage	V_R	40	V
Maximum Average Rectified Output Current	I_O	0.2	A
Non-Repetitive Peak Forward Surge Current @ $t=8.3\mu s$	I_{FSM}	1	A
Power Dissipation	P_d	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	667	°C/W
Junction Temperature	T_j	125	°C
Storage Temperature	T_{STG}	-50~+150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F	0.304 0.446		0.39 0.55	V	$I_F=10mA$ $I_F=100mA$
Reverse current	I_R		0.605 2.837	1.0 10	μA	$V_R=10V$ $V_R=40V$

The above data are for reference only.

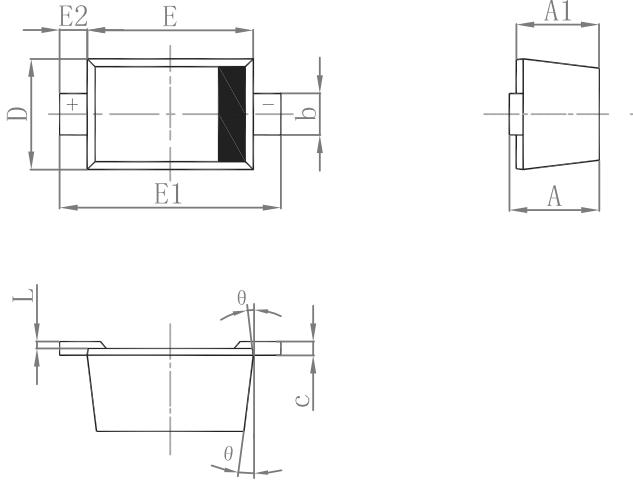
Typical Characteristics



The curve above is for reference only.

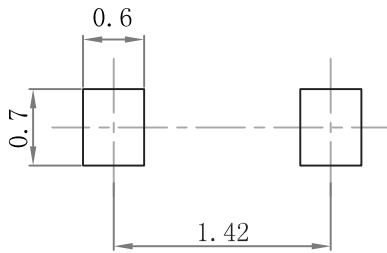
Outline Drawing

SOD-523 Package Outline Dimensions



Sym ol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.770	0.020	0.031
b	0.250	0.400	0.010	0.016
c	0.080	0.150	0.003	0.006
D	0.750	1.000	0.030	0.040
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.150	0.250	0.006	0.010
L	0.000	0.070	0.000	0.003
K	0°	8°	0°	8°

Suggested 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.

PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
SOD-523	7'	178	3000	183×188×80	45,000	386×265×215	180,000