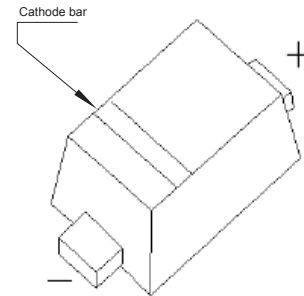


SOD-523 Plastic-Encapsulate Diodes
RB520S-30 SCHOTTKY BARRIER DIODES
FEATURES

- 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

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

Parameter	Symbol	Limit	Unit
Peak Reverse Voltage	V_{RM}	30	V
DC Blocking Voltage	V_R	30	V
Maximum Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3\mu s$	I_{FSM}	1	A
Power Dissipation	P_d	200	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	667	°C/W
Junction Temperature	T_j	125	°C
Storage Temperature	T_{STG}	-55~+125	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage ¹⁾	V_F			0.60	V	$I_F=200mA$
Reverse current ²⁾	I_R			1	μA	$V_R=10V$

Notes

1) Pulse width $\leq 380 \mu s$, Duty cycle $< 2\%$.

2) Pulse test, $t_p \leq 5ms$.

The above data are for reference only.

Typical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1 Power Derating Curve

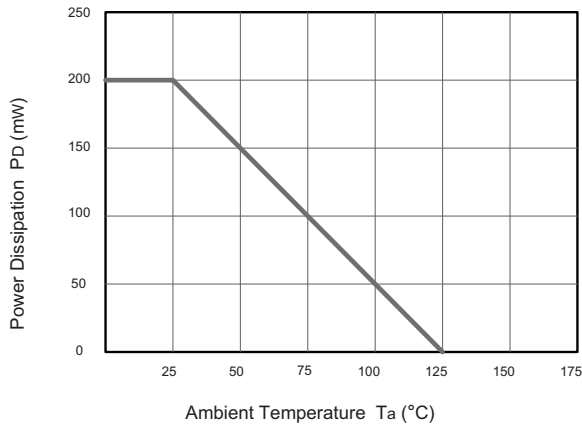


Fig.2 Typical Instantaneous Reverse Characteristics

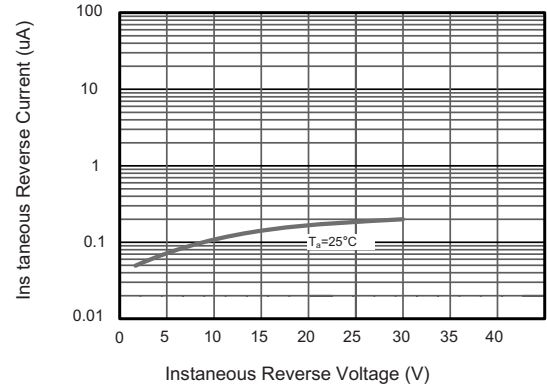
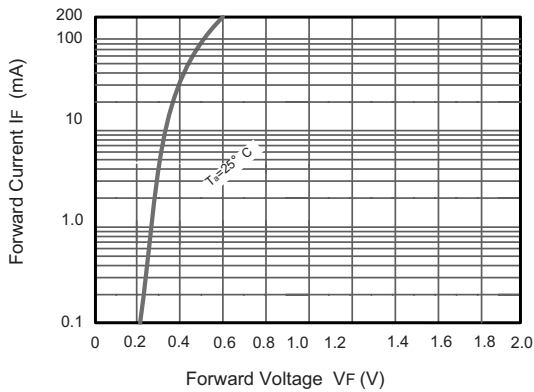


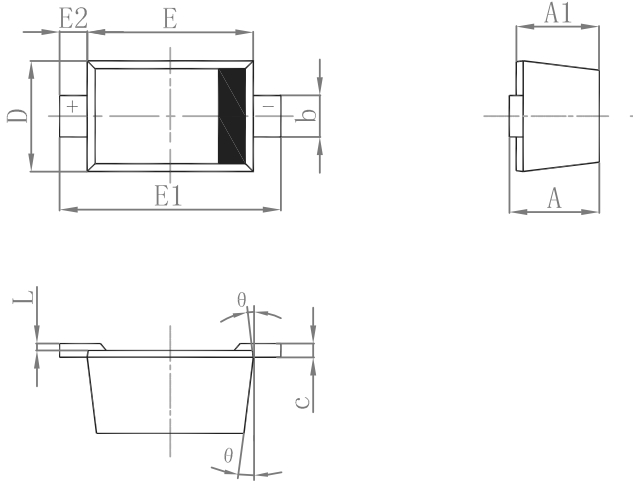
Fig.3 Typical Forward Characteristic



The curve above is for reference only.

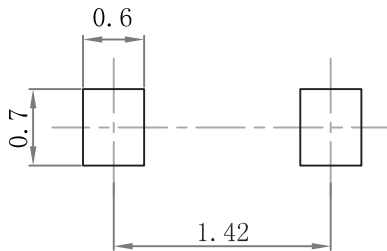
Outline Drawing

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	0.700	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.

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