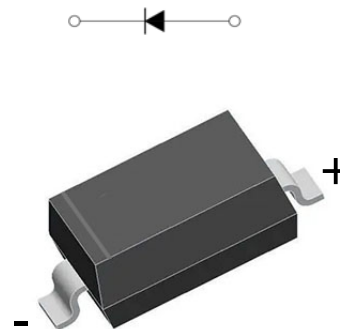


SOD-523 Plastic-Encapsulate Diodes

• Features

- Ultra small mold type
- Low V_F
- High reliability



SOD-523

• MAXIMUM RATINGS $(T_C=25^{\circ}\text{C})$

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	V_{RM}	45	V
Peak repetitive reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}	40	V
RMS reverse voltage	$V_{R(RMS)}$	28	V
Average rectified output current	I_O	200	mA
Non-repetitive peak forward surge current @ $t=8.3\text{ms}$	I_{FSM}	1	A
Power dissipation	P_D	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	667	$^{\circ}\text{C/W}$
Junction temperature	T_J	125	$^{\circ}\text{C}$
Storage temperature	T_{stg}	-55~+150	$^{\circ}\text{C}$

• ELECTRICAL CHARACTERISTICS $(T_a=25^{\circ}\text{C})$

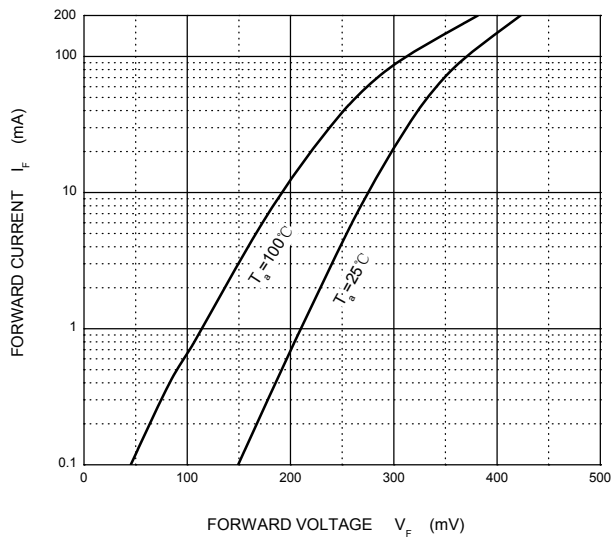
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	40			V
Reverse current	I_R	$V_R=10\text{V}$			20	μA
		$V_R=40\text{V}$			90	
Forward voltage	V_F	$I_F=10\text{mA}$	0.16		0.3	V
		$I_F=100\text{mA}$	0.31		0.45	
		$I_F=200\text{mA}$	0.41		0.54	

• Ordering Information:

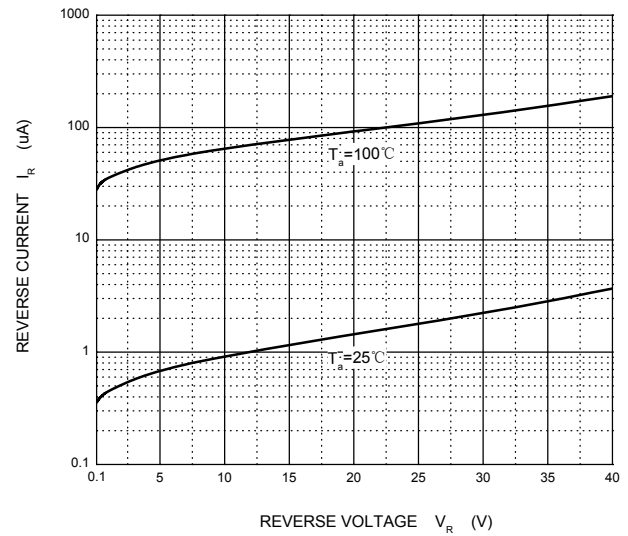
Part NO.	RB521S-40
Marking	S
Packing Information	REEL TAPE
Basic ordering unit (pcs)	3000

• Typical Characteristics

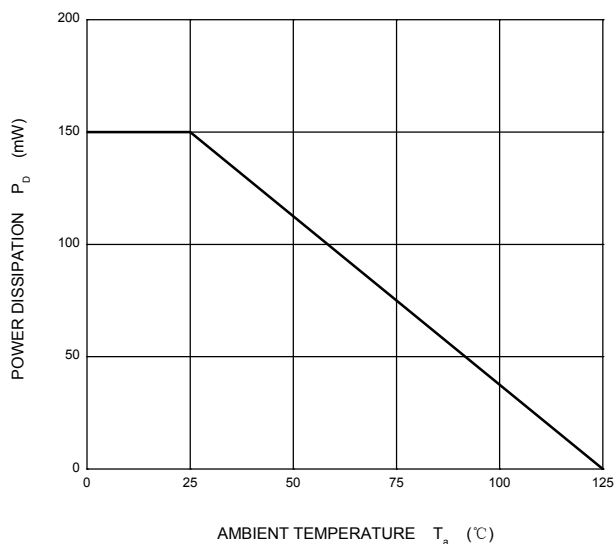
Forward Characteristics



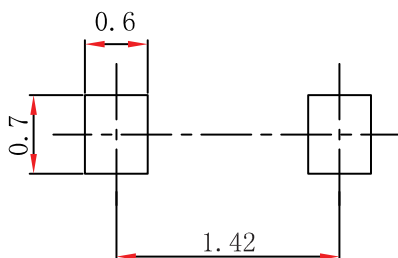
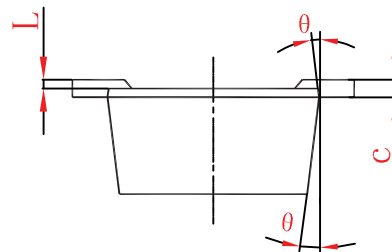
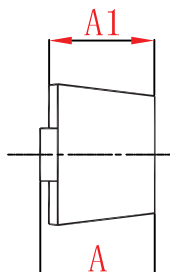
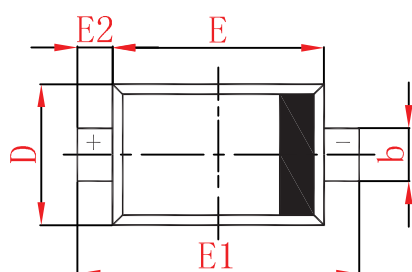
Reverse Characteristics



Power Derating Curve



SOD-523 Package Outline Dimensions



Note:

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

Sym ol	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	