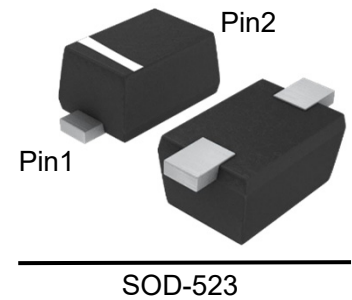


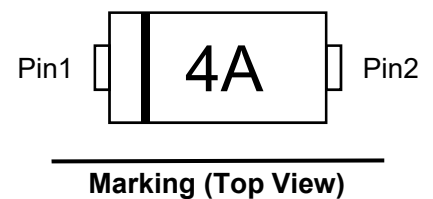
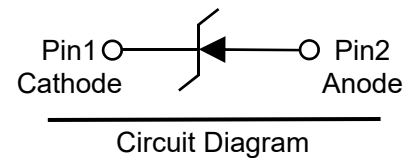
Feature

- SOD-523 Package
- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 3
- High temperature soldering guaranteed 260°C/10 seconds at terminals



Applications

- Extreme fast switches
- Automotive



Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Reverse Voltage	V_R	40	V
Forward Continuous Current (DC)	I_F	1.0	A
Non-Repetitive Peak Forward Surge Current at t=8.3ms	I_{FSM}	7.0	A
Power Dissipation	P_D	500	mW
Typical thermal resistance	$R_{\theta JA}$	250	°C/W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 ~ +150	°C

Valid provided that electrodes are kept at ambient temperature.

Schottky Barrier Diode

PSBD5D40V1HX

Electrical Characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	$I_R = 1mA$	40	-	-	V
Forward Voltage	V_F	$I_F = 0.1A$	-	0.35	0.38	V
		$I_F = 0.2A$	-	0.37	0.40	
		$I_F = 0.5A$	-	0.42	0.49	
		$I_F = 0.7A$	-	0.47	0.55	
		$I_F = 1A$	-	0.51	0.61	
Reverse Current	I_R	$V_R=40V$	-	10	40	μA
Total Capacitance	C_{tot}	$V_R=10V$, $f=1MHz$	-	19	-	pF

Typical Characteristics

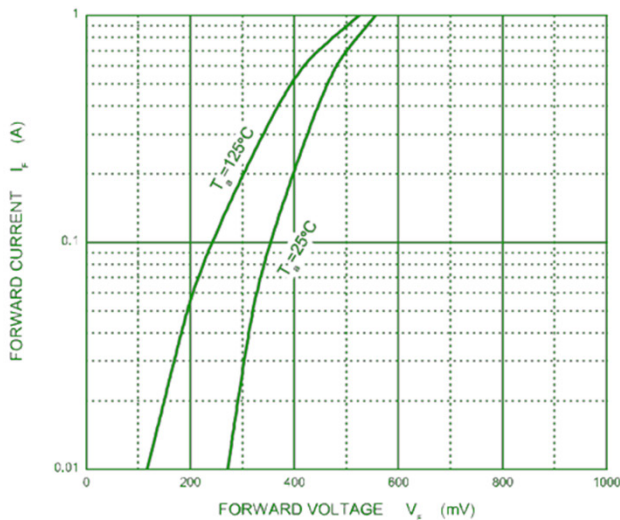


Fig1. Forward Characteristics

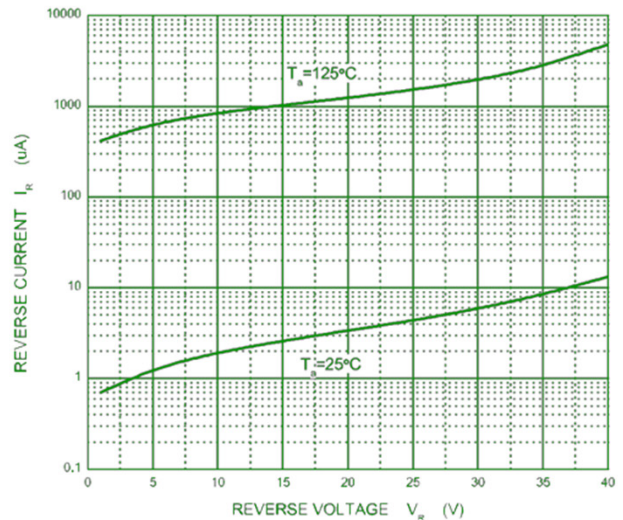


Fig2. Reverse Characteristics

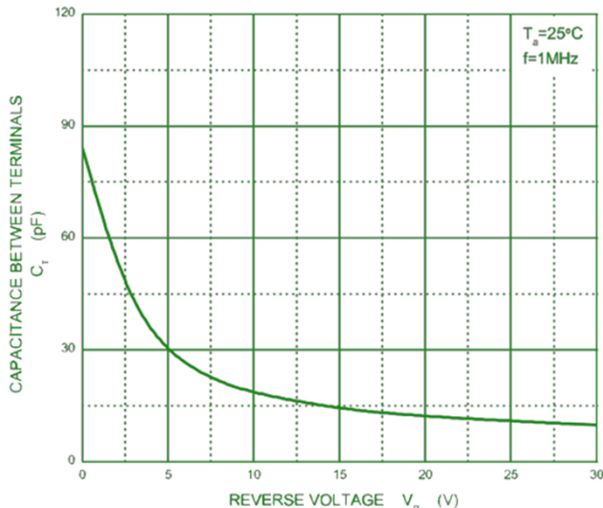
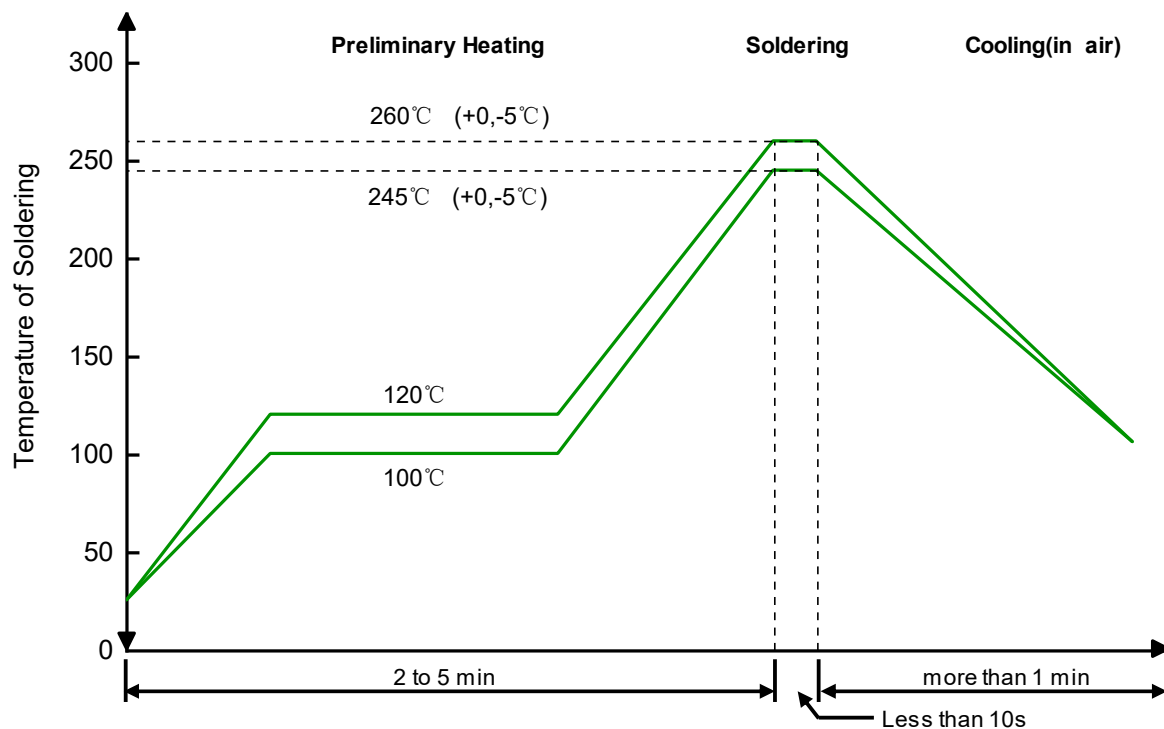
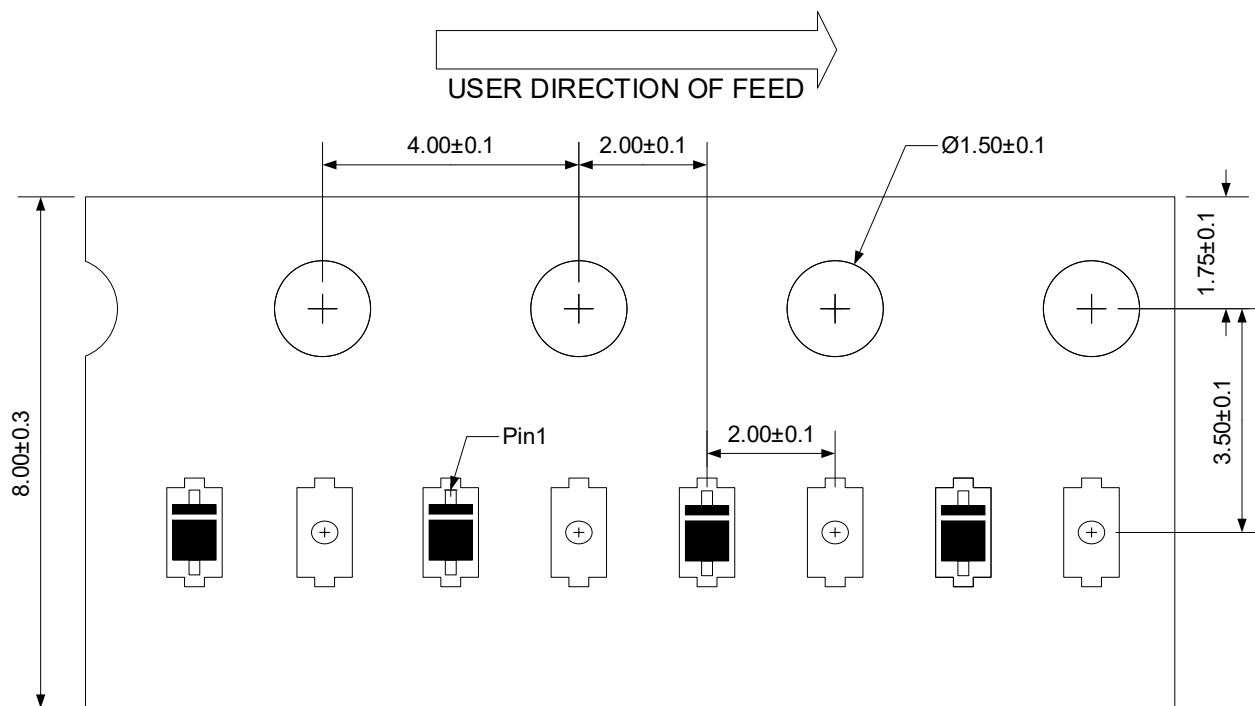


Fig3. Capacitance Characteristics

Solder Reflow Recommendation



Load with information

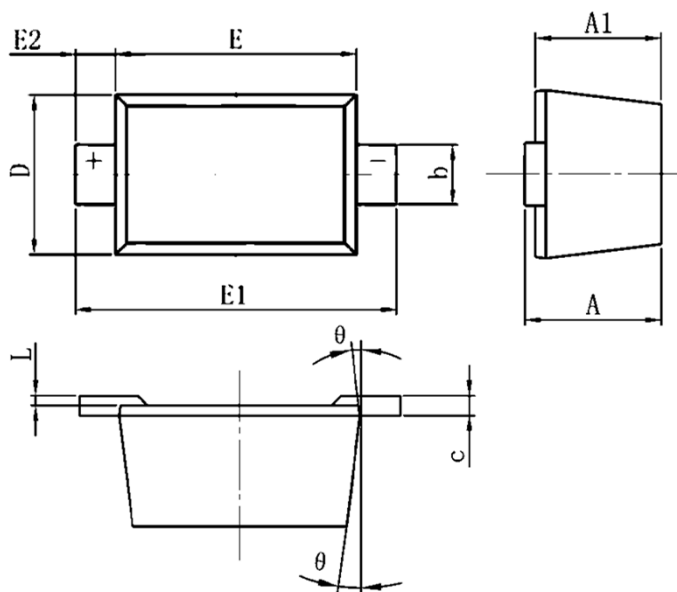


Unit:mm

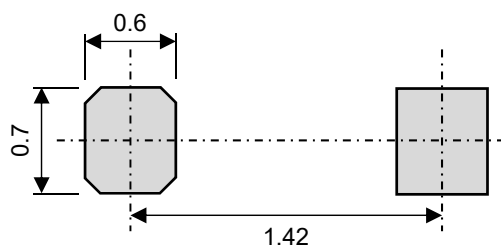
Schottky Barrier Diode

PSBD5D40V1HX

Product Dimension (SOD-523)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.51	0.77	0.020	0.031
A1	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.08	0.15	0.003	0.006
D	0.75	0.85	0.030	0.033
E	1.10	1.30	0.043	0.051
E1	1.50	1.70	0.059	0.067
E2	0.20 REF		0.008 REF	
L	0.01	0.07	0.001	0.003
θ	7° REF		7° REF	



Suggested PCB Layout

Unit: mm

Ordering information

Package	Reel	Shipping
SOD-523	7"	3000 / Tape & Reel

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