

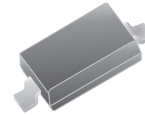
# SMD Schottky Barrier Diode



SMD Diodes Specialist

## RB520S-30 (RoHS Device)

$I_o = 200 \text{ mA}$   
 $V_R = 30 \text{ Volts}$

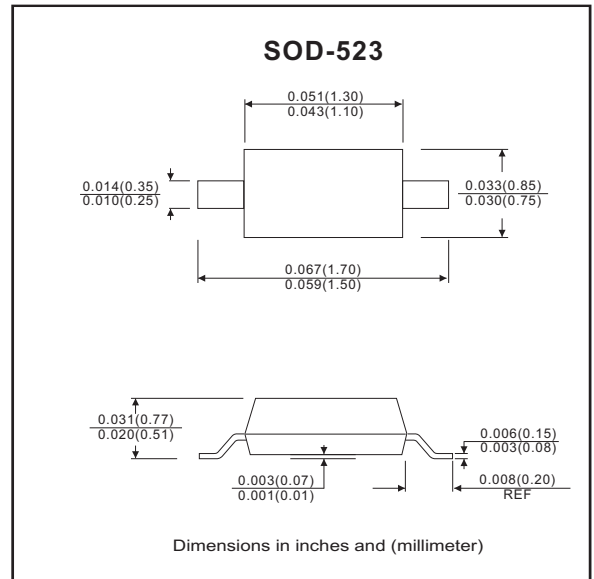


### Features

- Low reverse current.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Majority carrier conduction.

### Mechanical data

- Case: SOD523 standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking code: cathode band & B
- Mounting position: Any
- Weight: 0.0012 gram(approx.).



### Circuit Diagram



### Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		$V_{RRM}$			35	V
Reverse voltage		$V_R$			30	V
Average forward current		$I_o$			200	mA
Forward current,surge peak	8.3ms single half sine-wave superimposed on rate load(JEDEC method)	$I_{FSM}$			1	A
Storage temperature		$T_{STG}$	-40		+125	$^\circ\text{C}$
Junction temperature		$T_j$			+125	$^\circ\text{C}$

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 200 \text{ mA}$	$V_F$			0.6	V
Reverse current	$V_R = 10 \text{ V}$	$I_R$			1	$\mu\text{A}$

## RATING AND CHARACTERISTIC CURVES (RB520S-30)

Fig.1 Forward Characteristics

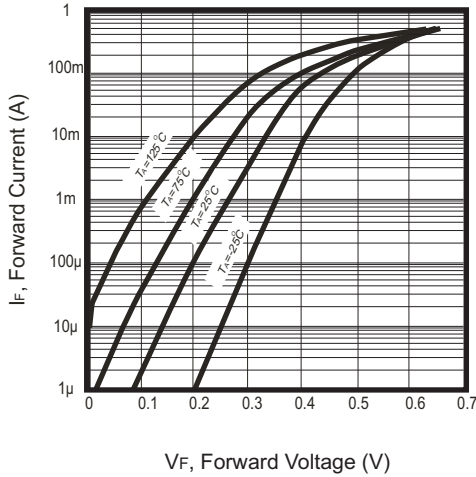


Fig. 2 - Reverse characteristics

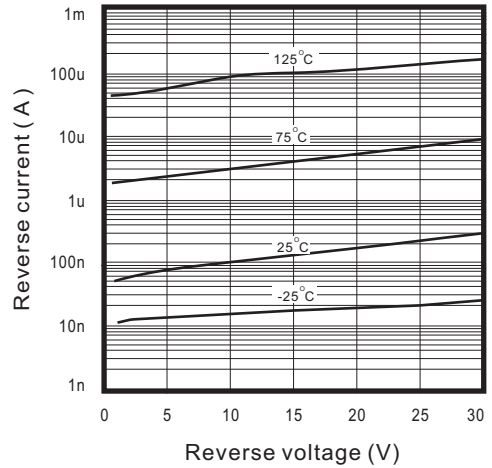


Fig. 3 - Capacitance between terminals characteristics

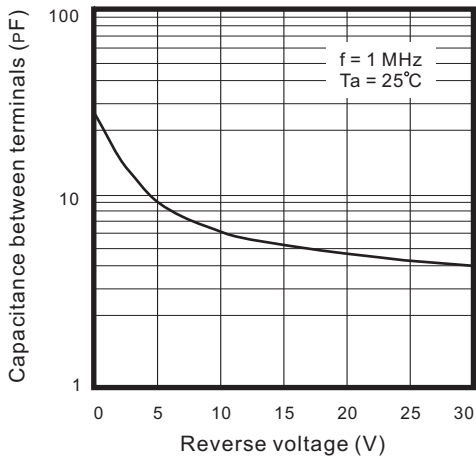
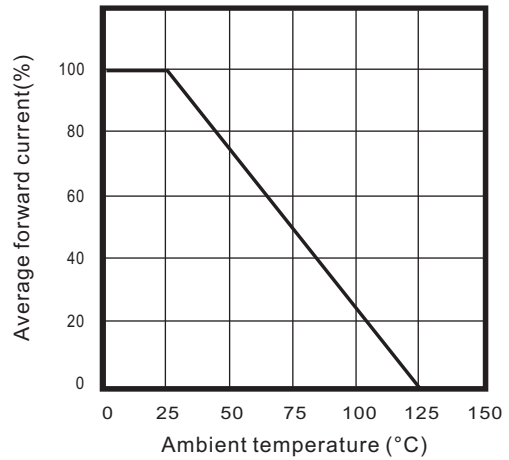
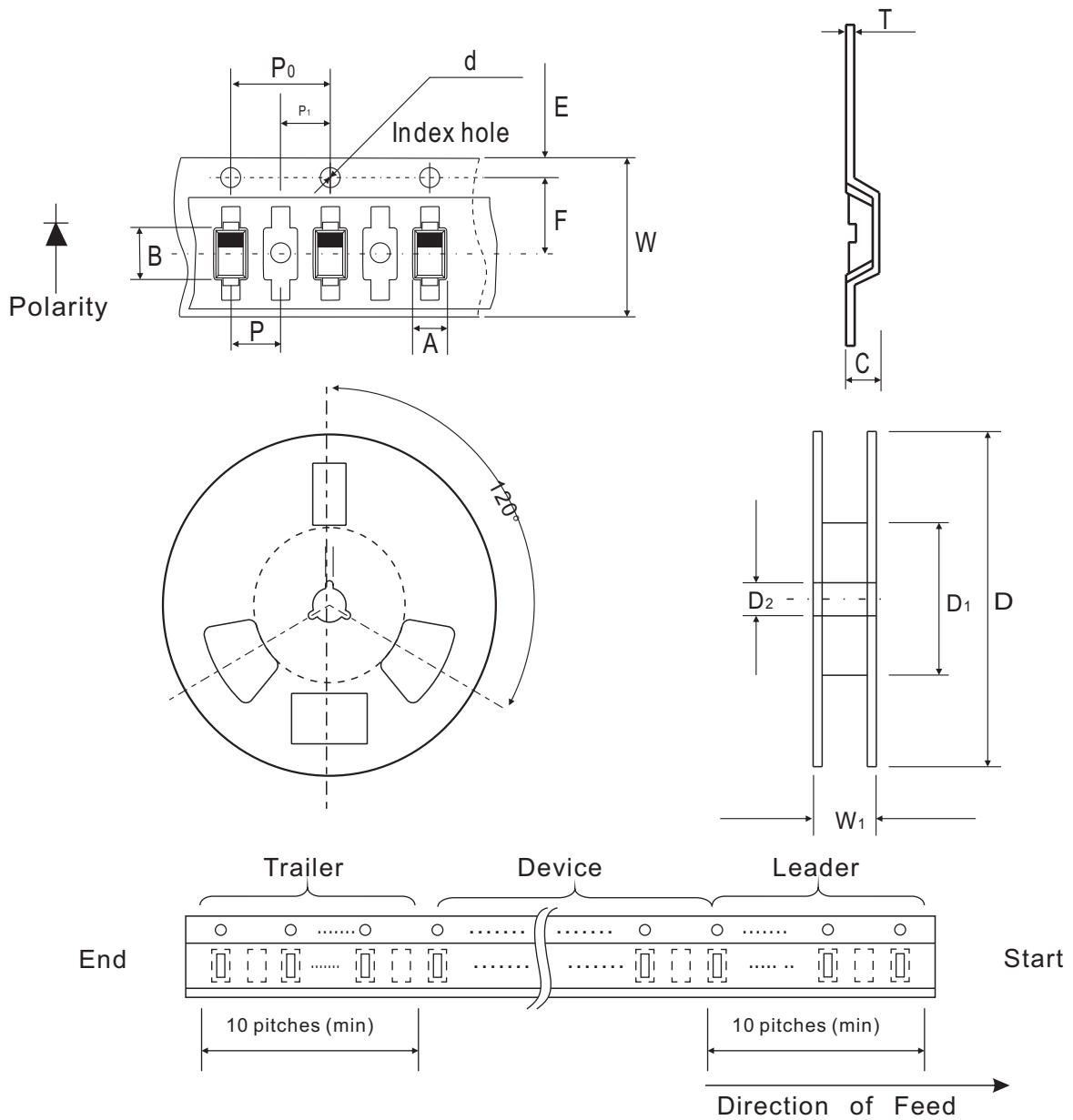


Fig.4 - Current derating curve



## Reel Taping Specification



SOD-523	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.96 ± 0.05	1.94 ± 0.05	0.73 ± 0.05	1.50 ± 0.10	178 ± 1	54.4 ± 0.4	1.30 ± 0.05
	(inch)	0.038 ± 0.002	0.076 ± 0.002	0.029 ± 0.002	0.059 ± 0.004	7.008 ± 0.04	2.142 ± 0.016	0.512 ± 0.002

SOD-523	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	2.00 ± 0.05	4.00 ± 0.10	2.00 ± 0.05	0.18 ± 0.02	8.00 ± 0.40	12.3 ± 0.20
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.079 ± 0.002	0.157 ± 0.004	0.079 ± 0.002	0.007 ± 0.001	0.315 ± 0.016	0.484 ± 0.008

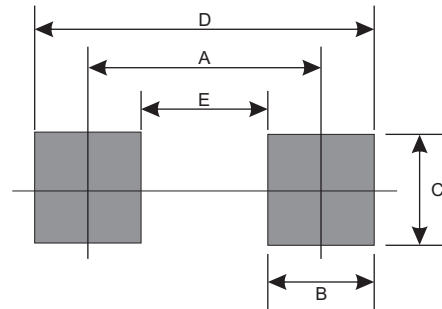
## Marking Code

Part Number	Marking Code
RB520S-30	B



## Suggested PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.40	0.055
B	0.60	0.024
C	0.70	0.028
D	2.00	0.079
E	0.80	0.031



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-523	3000	7