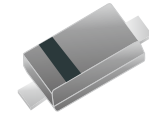


## RB520S-30-HF

**$I_o = 200 \text{ mA}$**   
 **$V_R = 30 \text{ Volts}$**   
**RoHS Device**  
**Halogen Free**

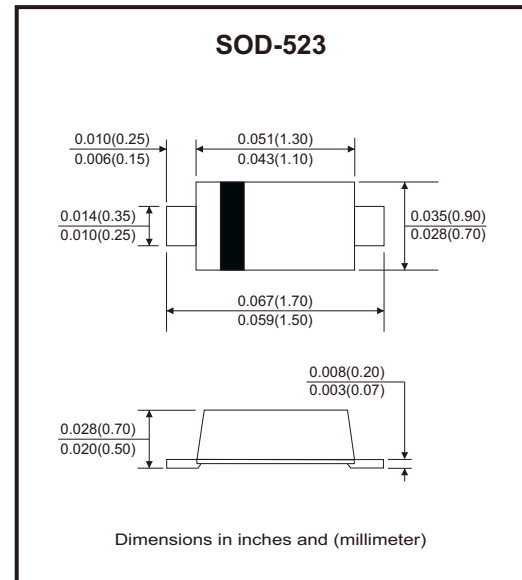


### Features

- Extremely fast switching speed.
- Extremely low forward voltage 0.6V (max) @  $I_F=200\text{mA}$ .
- Low reverse current.

### Mechanical data

- Case: SOD-523 standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any
- Weight: 0.0012 grams(approx.).



### Circuit Diagram



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

Parameter	Conditions	Symbol	Limit	Unit
DC reverse voltage		$V_R$	30	V
Mean rectifying current		$I_o$	200	mA
Peak forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	1	A
Junction temperature		$T_j$	125	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-40 to +125	$^\circ\text{C}$

### Electrical Characteristics (at $T_j=25^\circ\text{C}$ 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-HF)

Fig.1 - Forward Characteristics

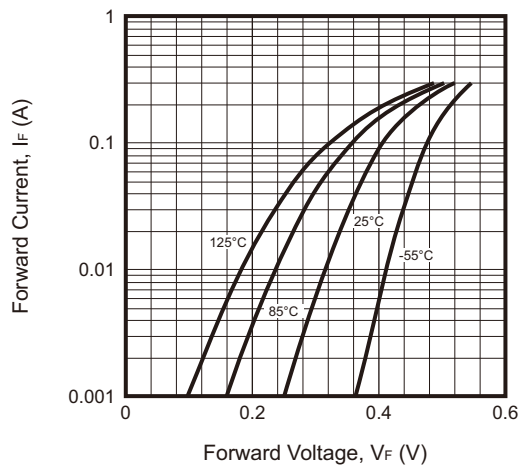


Fig.2 - Reverse Characteristics

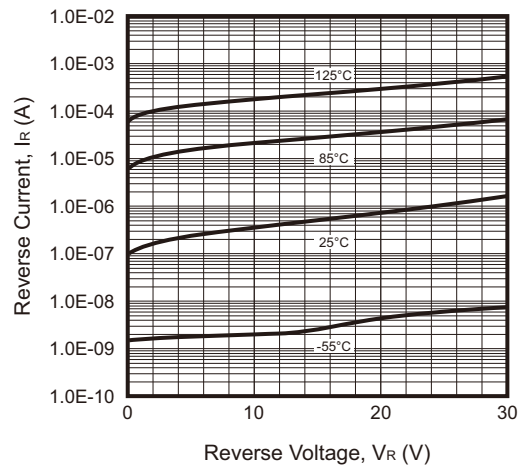
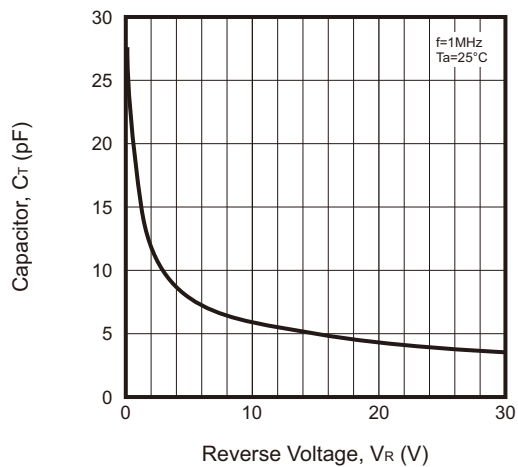
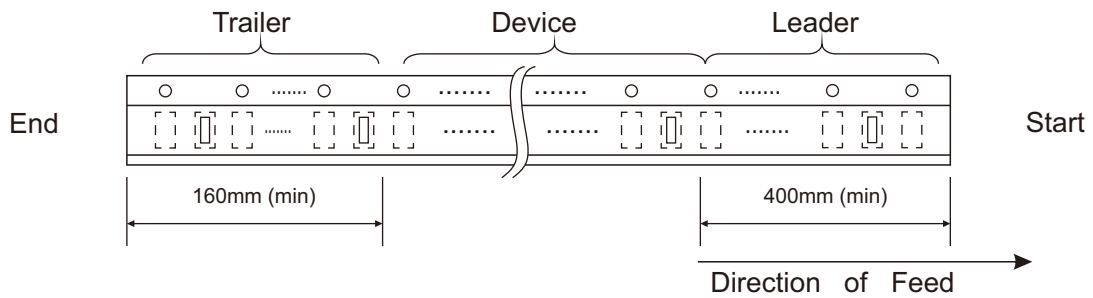
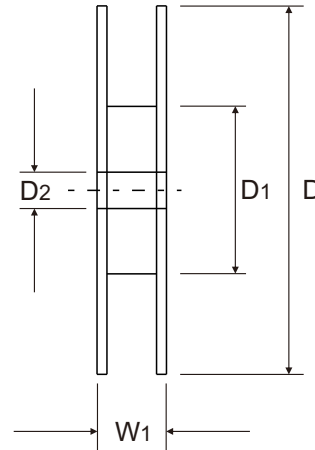
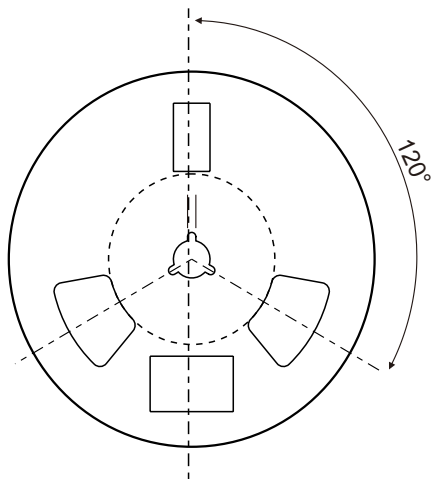
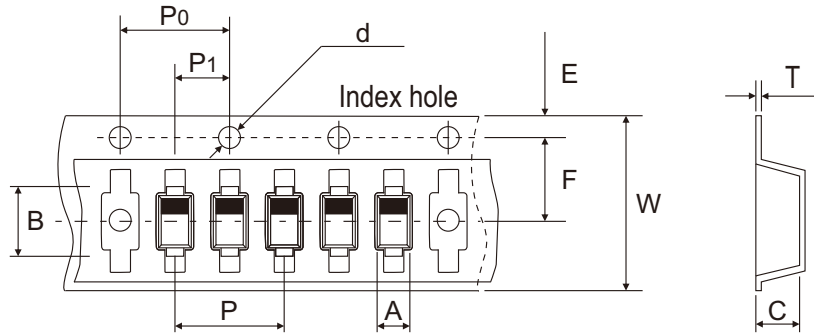


Fig.3 - Capacitance Between Terminals Characteristics



## Reel Taping Specification (For RB520S-30-F-HF)

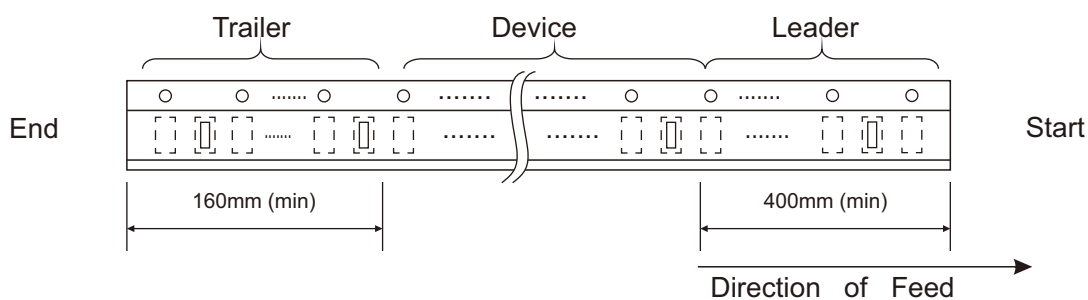
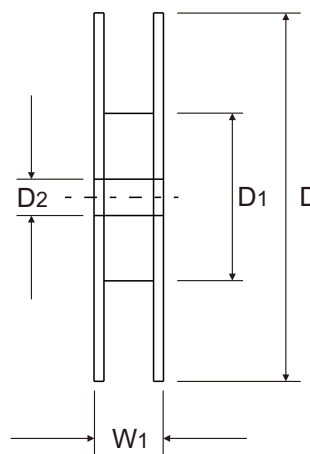
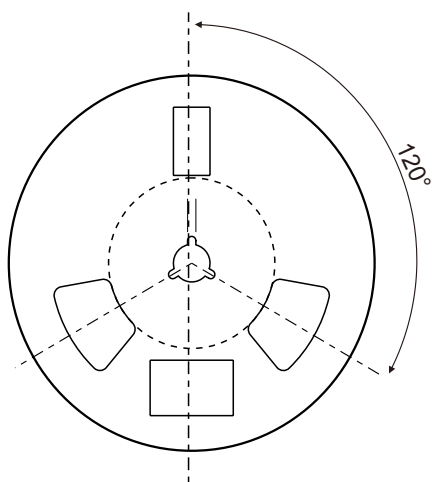
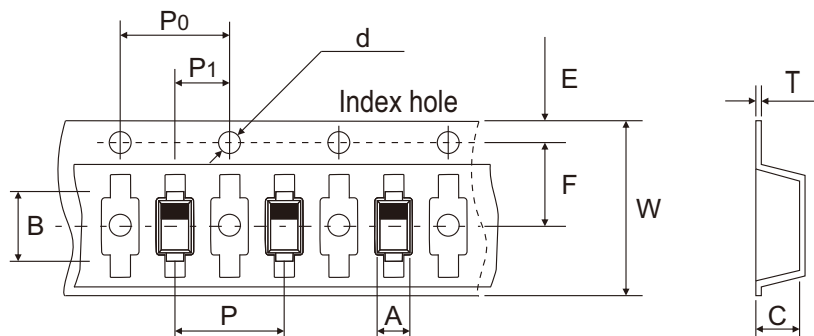


SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	See Note 1			$1.50 + 0.10$ $- 0.00$	178.00 Max.	50 Min.	$13.00 \pm 0.50$
	(inch)	See Note 1			$0.059 + 0.004$ $- 0.000$	7.008 Max.	1.969 Min.	$0.512 \pm 0.020$

SOD-523	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	0.60 Max.	8.30 Max.	10.9 Max.
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	0.024 Max.	0.327 Max.	0.429 Max.

Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

## Reel Taping Specification (For RB520S-30-H-HF)



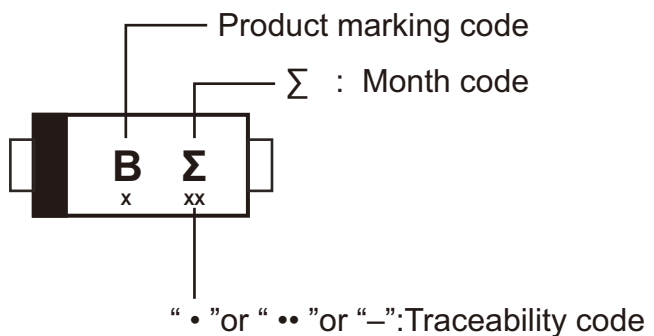
SOD-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	See Note 1			$1.50 + 0.10$ $- 0.00$	178.00 Max.	50 Min.	$13.00 \pm 0.50$
	(inch)	See Note 1			$0.059 + 0.004$ $- 0.000$	7.008 Max.	1.969 Min.	$0.512 \pm 0.020$

SOD-523	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	0.60 Max.	8.30 Max.	10.9 Max.
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.157 \pm 0.004$	$0.157 \pm 0.004$	$0.079 \pm 0.004$	0.024 Max.	0.327 Max.	0.429 Max.

Notes: 1. A, B, and C are determined by component size. The clearance between the components and the cavity must be within 0.05mm min. to 0.50mm max.

## Marking Code

Part Number	Marking Code	
RB520S-30-F-HF	B Σ	B
RB520S-30-H-HF		



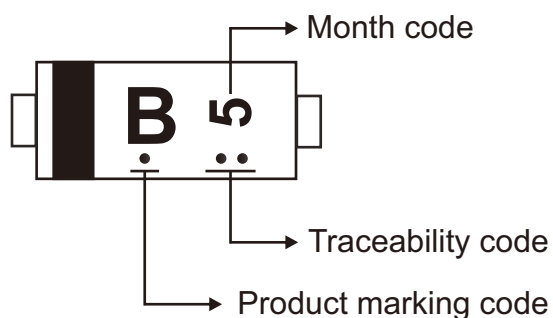
## Month Code:

Month	Odd Year (per A. D.)	Even Year (per A. D.)
Jan	1	E
Feb	2	F
Mar	3	H
Apr	4	J
May	5	K
Jun	6	L

Month	Odd Year (per A. D.)	Even Year (per A. D.)
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

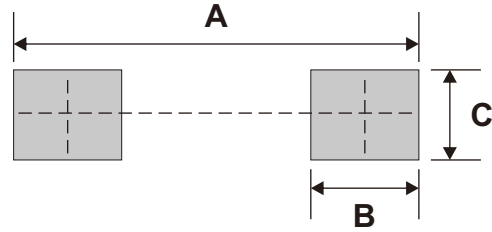
For example as follows:

- Product marking code: B
- Manufacture date\_ Year: 2013 (Even year) / Month: May  
Month code: J (Month code rotated 90° and two dots below the month code.)



## Suggested P.C.B. PAD Layout

SIZE	SOD-523	
	(mm)	(inch)
A	1.80	0.071
B	0.48	0.019
C	0.40	0.016



## Standard Packaging

Case Type		REEL PACK	
		REEL (pcs)	Reel Size (inch)
SOD-523	RB520S-30-F-HF	8,000	7
	RB520S-30-H-HF	3,000	