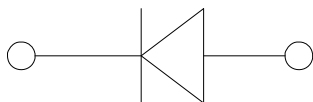


## RB520S-30

### Schottky Barrier Diode



#### Features

- Moisture sensitivity level 1
- Reverse voltage: 30V
- Average forward current : 200mA

#### Application

- High frequency and low voltage rectifier

#### Mechanical data

- **Package:** SOD-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

#### ■ Maximum Ratings ( $T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			B
Reverse voltage	$V_R$	V	30
Forward current	$I_F$	mA	200
Non-repetitive surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	$I_{FSM}$	A	1
Non-repetitive surge peak forward current @ $t=1\text{ms}$ square wave			2.5
Power dissipation	$P_D$	mW	150
Junction temperature	$T_J$	$^{\circ}\text{C}$	-40 to +125
Storage temperature	$T_{STG}$	$^{\circ}\text{C}$	-40 to +125

## RB520S-30

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Breakdown voltage	V <sub>R</sub>	V	I <sub>R</sub> =500uA	30		
Forward voltage	V <sub>F</sub>	V	I <sub>F</sub> =200mA			0.6
Reverse leakage current	I <sub>R</sub>	uA	V <sub>R</sub> =10V			1

### ■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R <sub>θJ-A</sub> <sup>(1)</sup>	°C/W	667
Thermal resistance, junction-to-case	R <sub>θJ-C</sub> <sup>(1)</sup>	°C/W	533

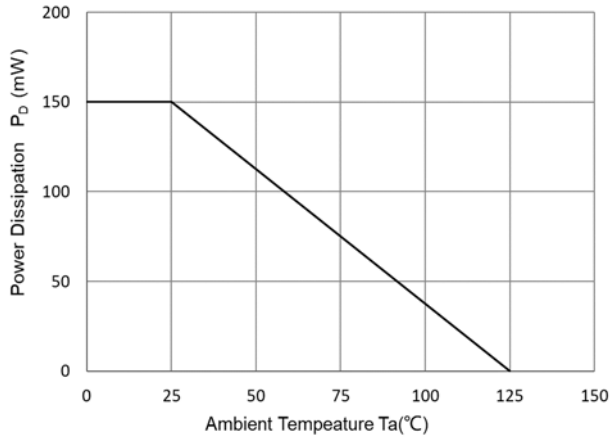
#### Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm\*9mm copper pad areas

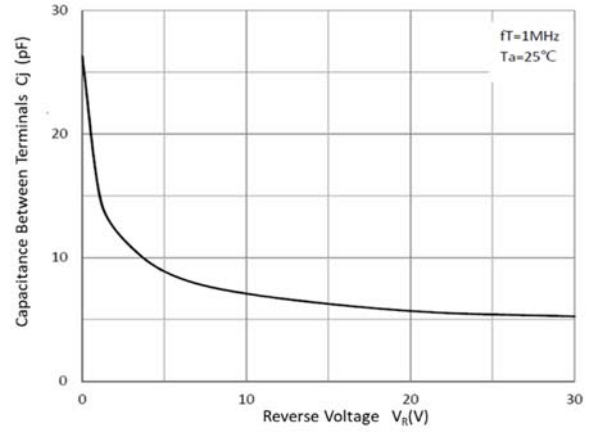
## RB520S-30

### ■ Characteristics

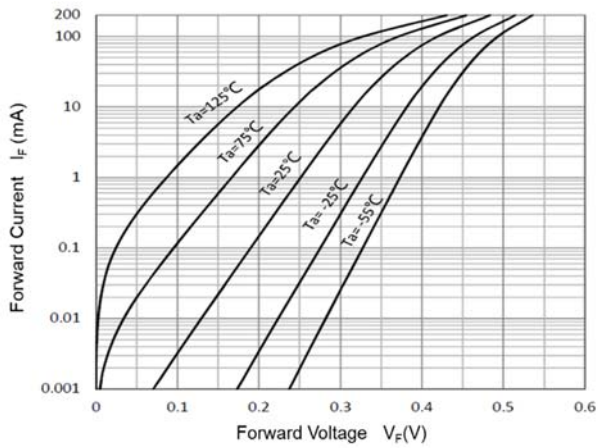
**Fig 1:  $P_D$ -Ta Curve**



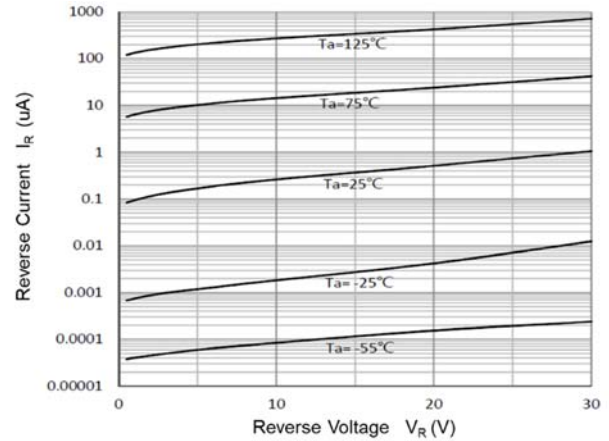
**Fig 2: Capacitance Capability**



**Fig 3: Typical Forward Characteristics**



**Fig 4: Typical Reverse Characteristics**

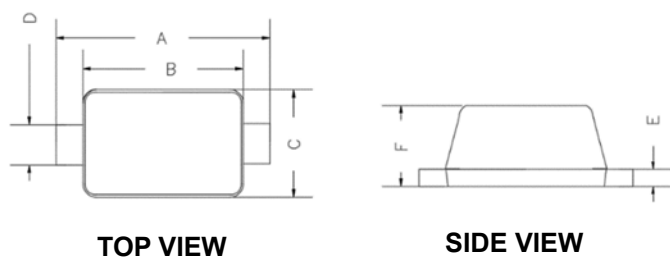


## RB520S-30

### ■ Ordering Information

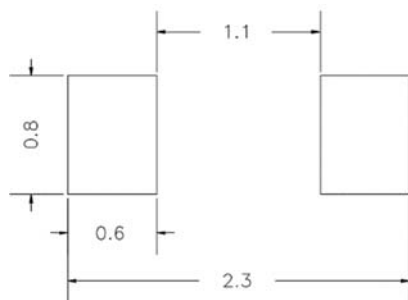
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
RB520S-30	F2	Approximate 0.002	8000	80000	320000	7" reel
RB520S-30	F3	Approximate 0.002	3000	30000	120000	7" reel

### ■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MM	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

### ■ Suggested Pad Layout



UNIT: mm

## **RB520S-30**

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