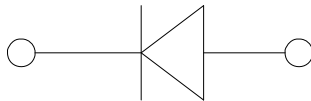
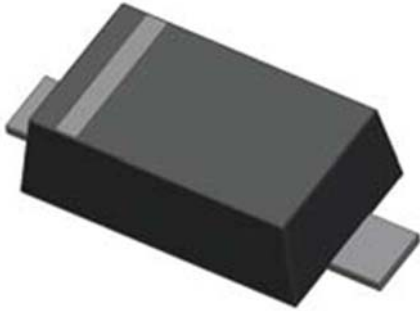


## Schottky Barrier Diode



### Features

- Moisture sensitivity level 1
- Reverse voltage: 40V
- 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			3B
Reverse voltage	$V_R$	V	40
Forward current	$I_F$	mA	200
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	$I_{FSM}$	A	1.0
Non-repetitive surge peak forward current @ t=1ms square wave			5
Power dissipation	$P_D$	mW	150
Junction temperature	$T_J$	$^{\circ}\text{C}$	-55 to +125
Storage temperature	$T_{STG}$	$^{\circ}\text{C}$	-55 to +125

**■ Electrical Characteristics** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Breakdown voltage	$V_R$	V	$I_R=10\mu\text{A}$	40		
Forward voltage	$V_F$	V	$I_F=100\text{mA}$			0.55
Reverse leakage current	$I_R$	$\mu\text{A}$	$V_R=10\text{V}$			1

**■ Thermal Characteristics**

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	$R_{\theta J-A}^{(1)}$	$^{\circ}\text{C/W}$	667
Thermal resistance, junction-to-case	$R_{\theta J-C}^{(1)}$	$^{\circ}\text{C/W}$	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



■ Characteristics

Fig 1:  $P_D$ - $T_a$  Curve

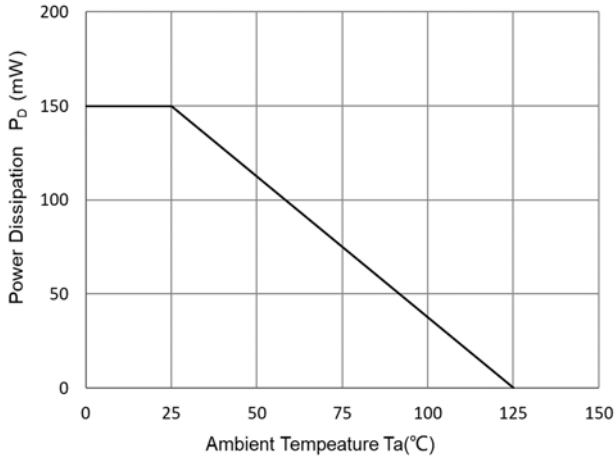


Fig 2: Capacitance Capability

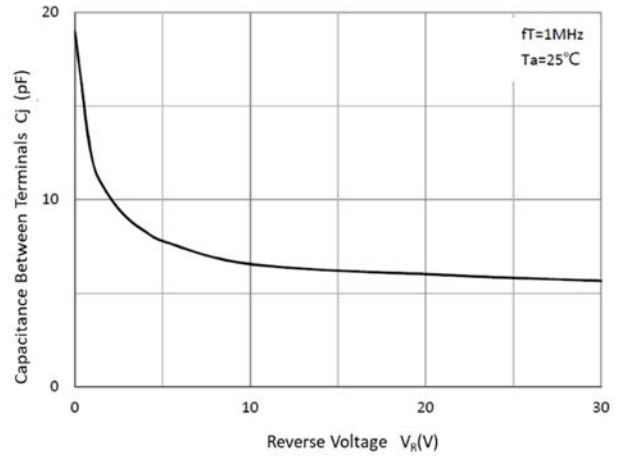


Fig 3: Typical Forward Characteristics

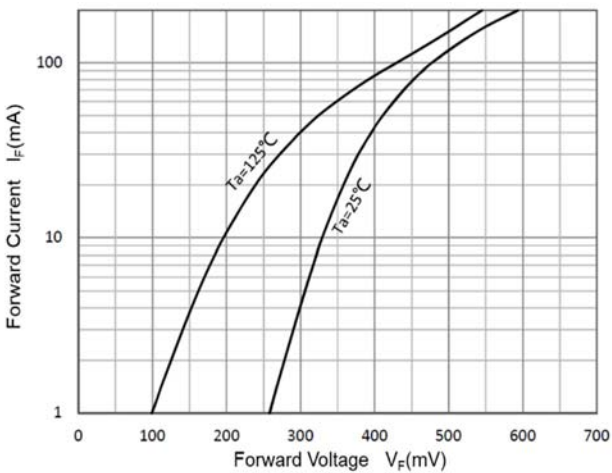
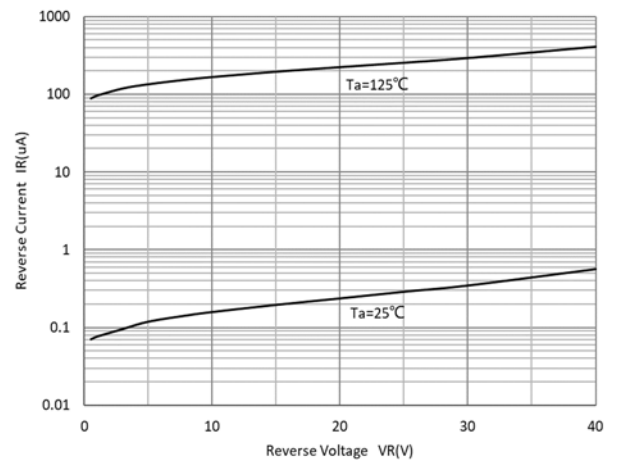


Fig 4: Typical Reverse Characteristics





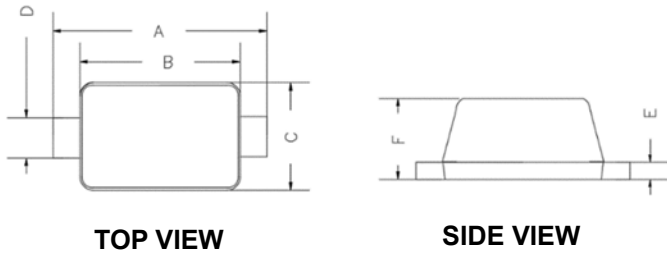
# RB520S-40

RoHS  
COMPLIANT

## ■ Ordering Information

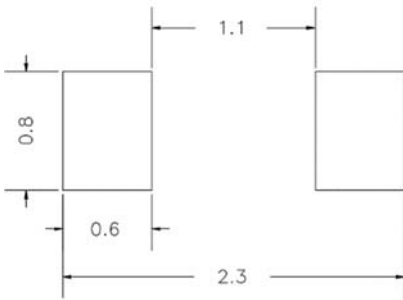
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
RB520S-40	F2	Approximate 0.002	8000	80000	320000	7" reel
RB520S-40	F3	Approximate 0.002	3000	30000	120000	7" reel

## ■ 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



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