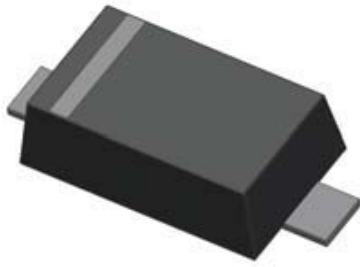
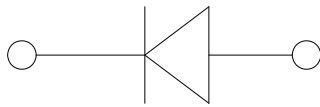


## Small Signal Schottky Barrier Diode



**SOD523**



### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- $V_{RRM}$  40V
- $I_{FAV}$  200mA
- Part no. with suffix "Q" means AEC-Q101 qualified

### Applications

- Low Forward Voltage Drop
- Automotive

### Mechanical Data

- **Case:** SOD523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Maximum Repetitive peak reverse voltage	$V_{RRM}$	V		40
DC Blocking Voltage	$V_R$	V		40
Average Forward Current	$I_{FAV}$	mA		200
Peak Forward Surge Current	$I_{FSM}$	A	8.3ms, half sine	1
Power Dissipation	$P_{tot}$	mW		150
Thermal Resistance Junction to Ambient	$R_{thJA}$	K/W		667
Junction Temperature	$T_J$	$^\circ\text{C}$		-55 to +125
Storage Temperature Range	$T_{stg}$	$^\circ\text{C}$		-55 to +125



## RB521S-40Q

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =10mA		0.35
			I <sub>F</sub> =50mA		0.40
			I <sub>F</sub> =200mA		0.59
Reverse Leakage Current	I <sub>R</sub>	uA	V <sub>R</sub> =40V		5
Reverse Breakdown Voltage	V <sub>BR</sub>	V	I <sub>R</sub> =100uA	40	
Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =1V, f =1MHz	12	13
Reverse Recovery Time	t <sub>rr</sub>	ns	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =1mA, R <sub>L</sub> =100Ω		7

### ■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
RB521S-40Q	F2	Approximate 0.002	8000	80000	320000	7" reel



## ■ Characteristics (Typical)

Fig.1:  $P_D-T_A$

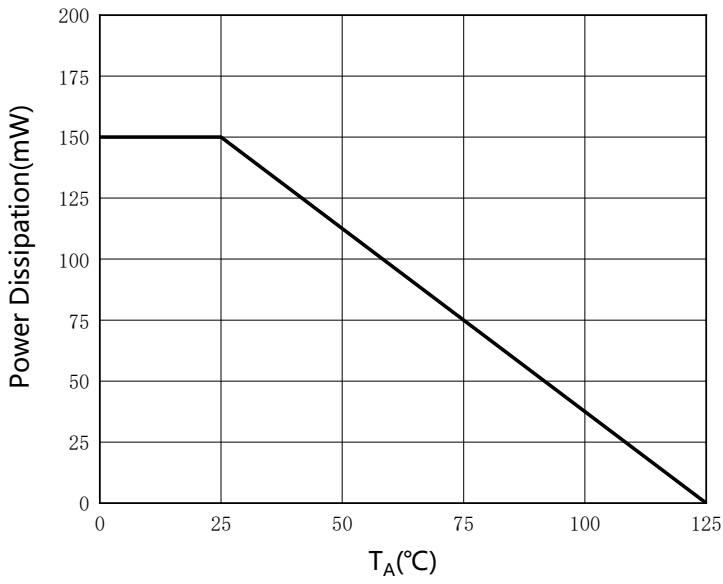


Fig.2: Capacitance Characteristics

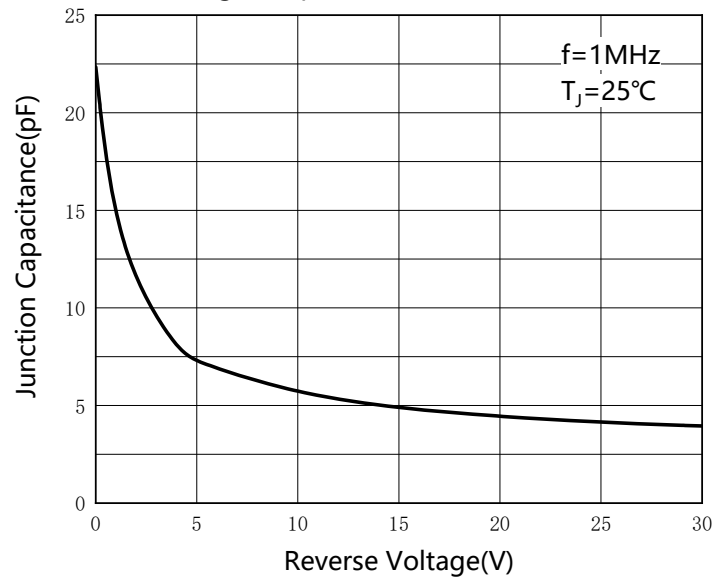


Fig.3: Forward Characteristics

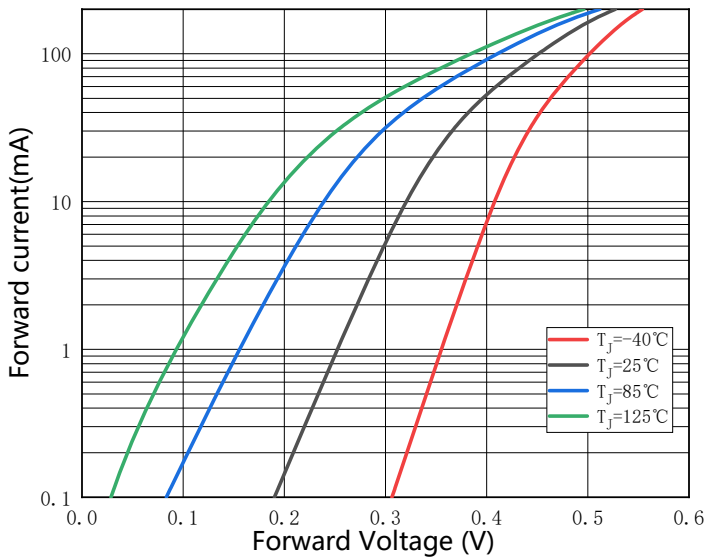
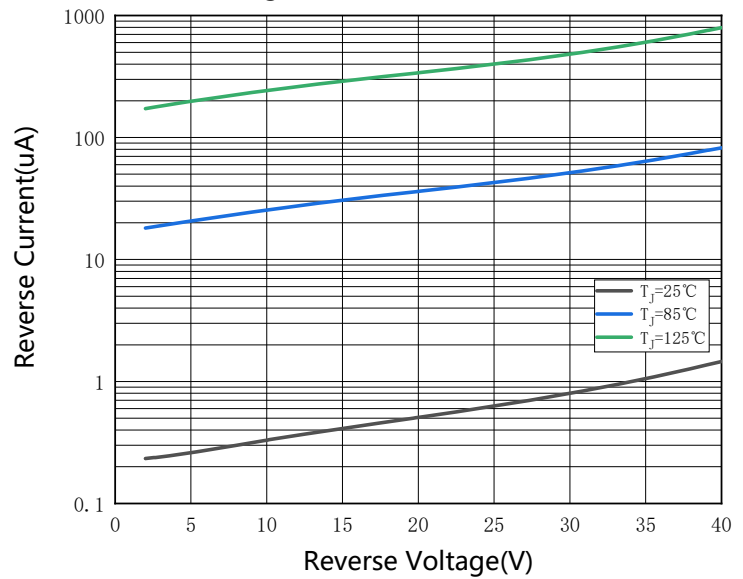


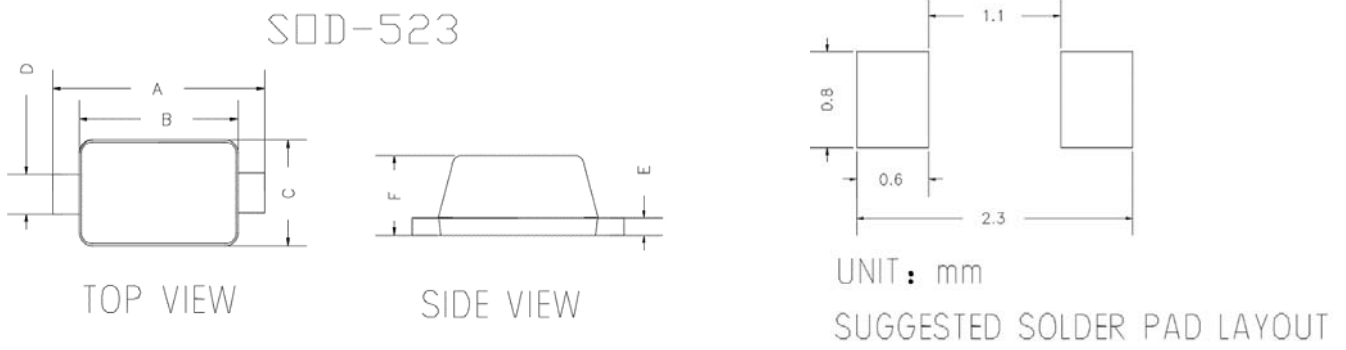
Fig.4: Reverse Characteristics





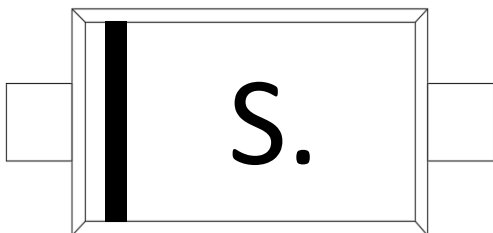
# RB521S-40Q

## ■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	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

## ■ Marking Information



**Note:**

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black



## Disclaimer

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