

# RB520S40

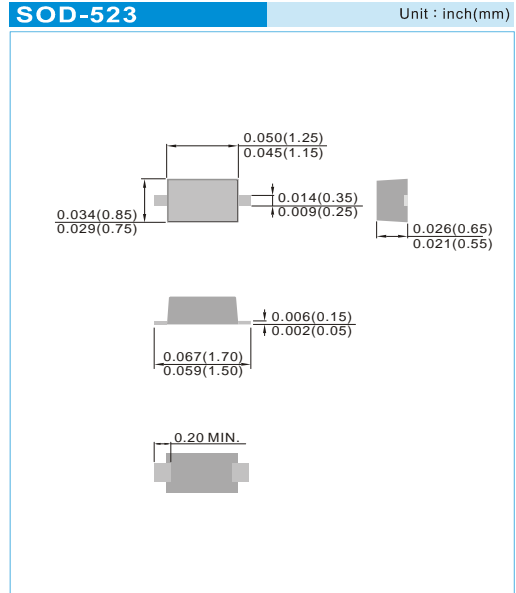
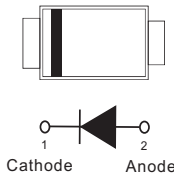
## SURFACE MOUNT SCHOTTKY BARRIER DIODE

### FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Mount Package
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight : 0.00005 ounces, 0.0014 grams



### MAXIMUM RATINGS@T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	40	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	28	V
Forward Continuous Current (Note 1)	I <sub>FM</sub>	250	mA
Non-Repetitive Peak Forward Surge Current@t <sub>≤</sub> 1s	I <sub>FSM</sub>	1	A

### THERMAL CHARACTERISTICS@T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P <sub>D</sub>	150	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	667	°C/W
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +125	°C

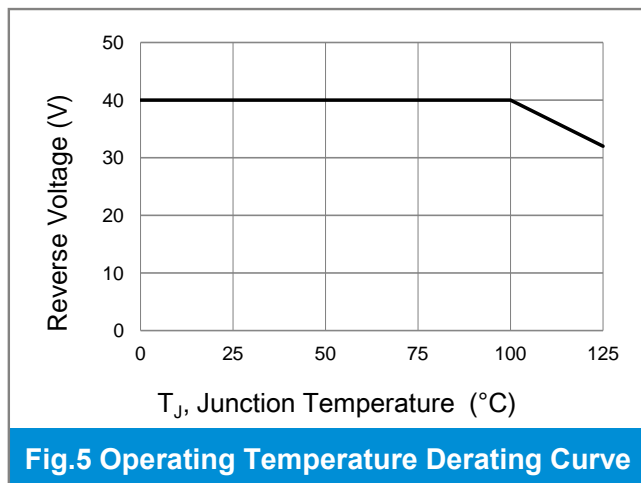
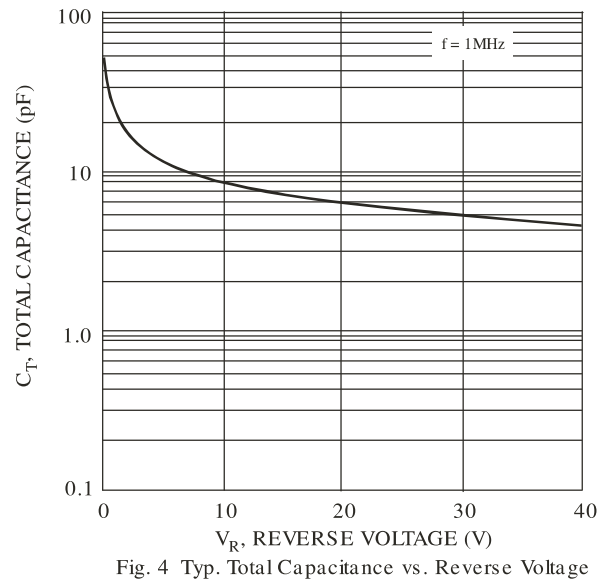
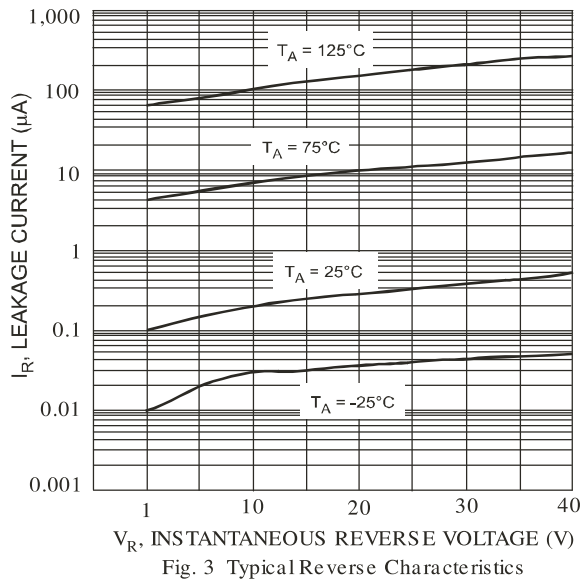
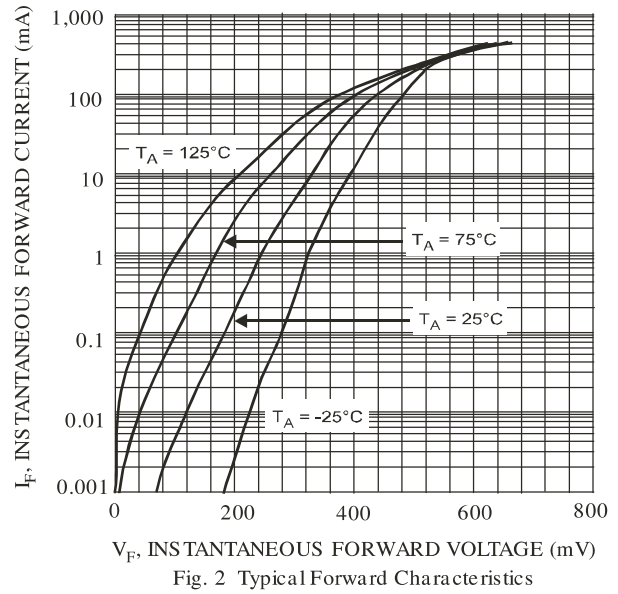
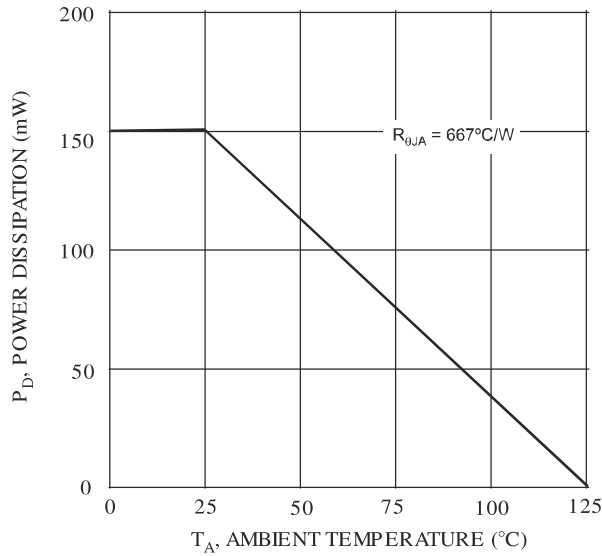
- Notes : 1.Part mounted on FR-4 board with recommended pad layout  
2.Short duration pulse test used so as to minimize self-heating effect

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## ELECTRICAL CHARACTERISTICS@T<sub>A</sub>=25°C unless otherwise specified

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	I <sub>R</sub> =10μA	V <sub>BR(R)</sub>	40	-	-	V
Forward Voltage Drop	I <sub>F</sub> =20mA I <sub>F</sub> =200mA	V <sub>F</sub>	-	-	0.37 0.6	V
Peak Reverse Current (Note 2)	V <sub>R</sub> =30V V <sub>R</sub> =10V	I <sub>R</sub>	-	-	5 1	μA
Total Capacitance	V <sub>R</sub> =0V, f=1MHz	C <sub>T</sub>	-	50	-	pF
Reverse Recovery Time	I <sub>F</sub> =I <sub>R</sub> =200mA, I <sub>RR</sub> =0.1 x I <sub>R</sub> , R <sub>L</sub> =100Ω	T <sub>RR</sub>	-	10	-	ns

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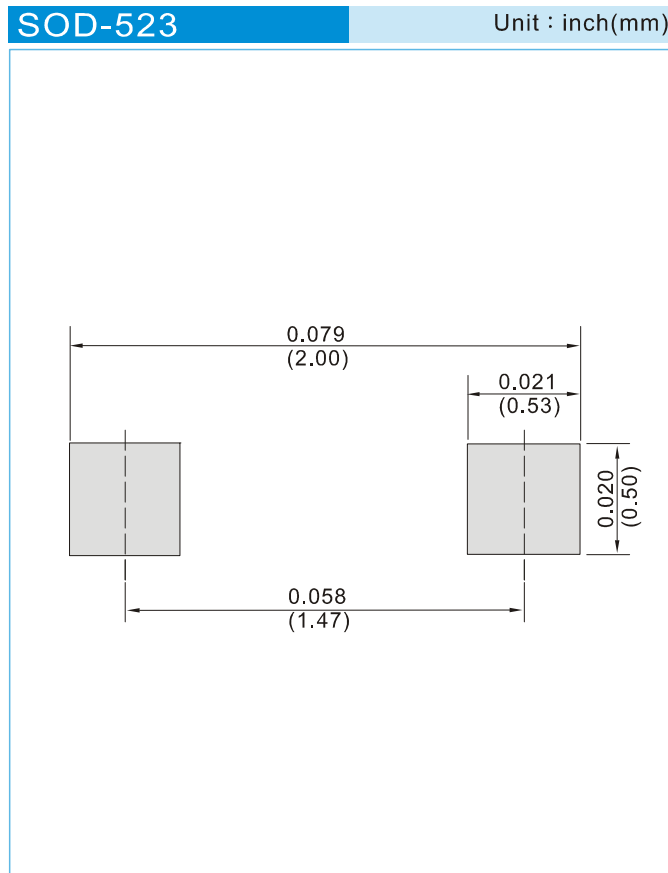


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## Product and Packing Information

Part No.	Package Type	Packing Type	Marking
RB520S40	SOD-523	5K pcs / 7" reel	22
RB520S40	SOD-523	12K pcs / 13" reel	22

## Mounting Pad Layout



## **RB520S40**

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