

## SOD-523 Surface Mount Schottky Barrier Rectifier

### Features

- $V_R=40V$
- $I_{F(AV)}=0.2A$
- Power Dissipation of 150mW
- Fast switching speed
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

**Reverse Voltage**  
40 V  
**Forward Current**  
0.2 Ampere

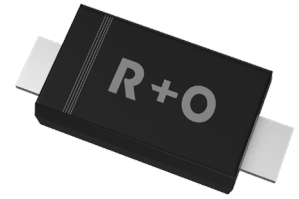
### Applications

For use in low voltage high frequency circuit signals.

### Mechanical Data

- Case: SOD-523  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

SOD-523



### Function Diagram



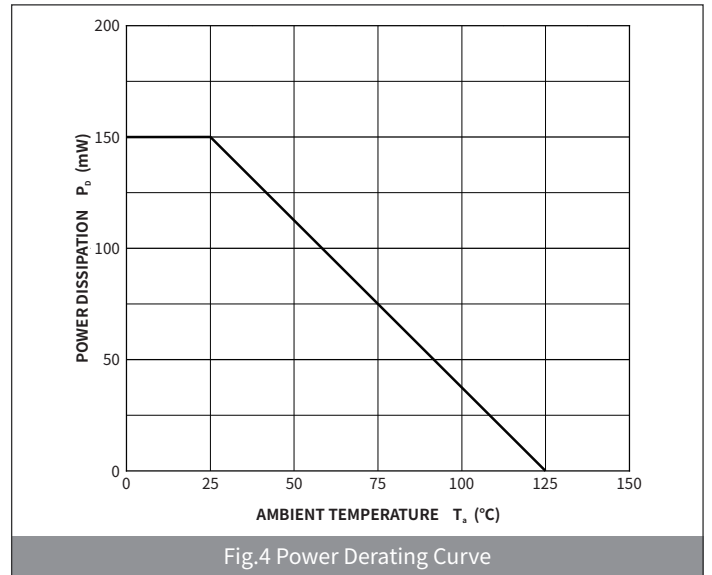
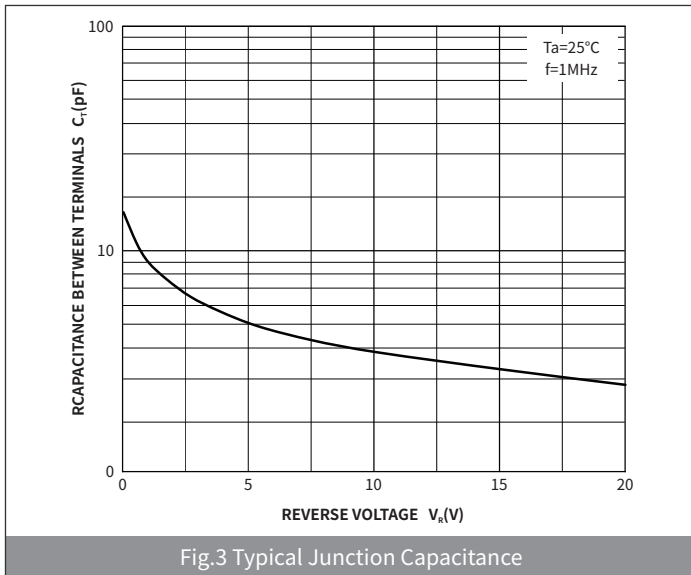
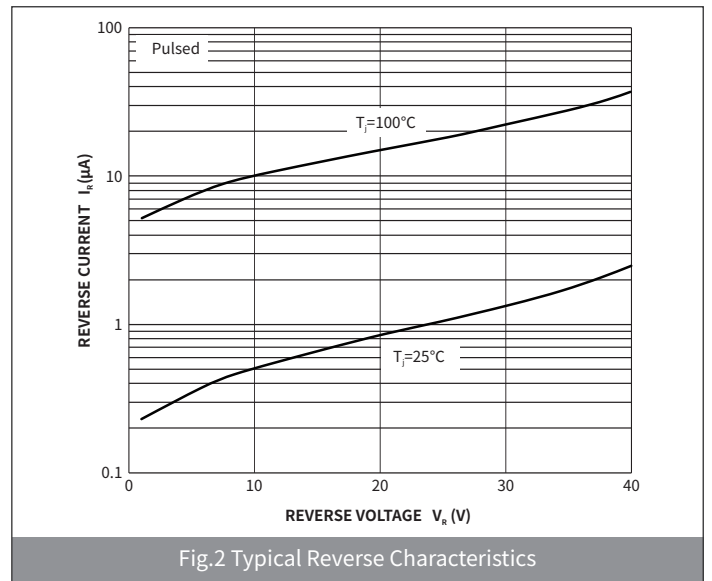
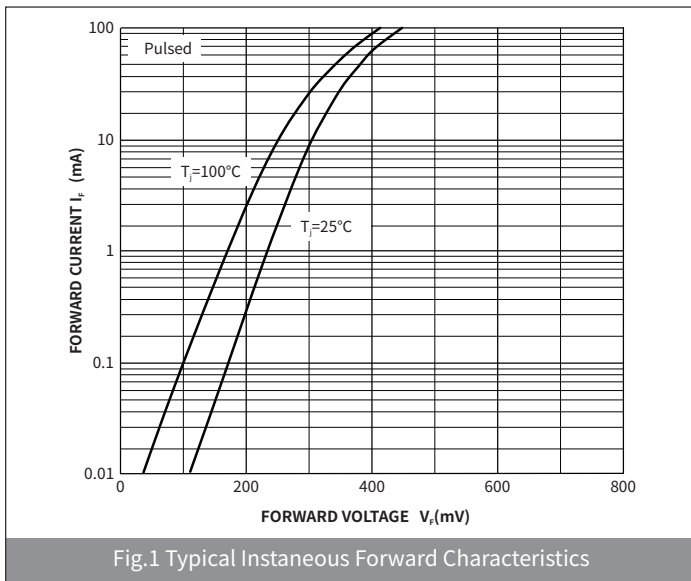
### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	$V_{RRM}$	V	40
Maximum RMS Voltage	$V_{RMS}$	V	28
Maximum DC blocking voltage	$V_{DC}$	V	40
Maximum average forward rectified current	$I_{F(AV)}$	A	0.2
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	1.0
Power Dissipation	$P_D$	mW	150
Junction Temperature	$T_j$	°C	-40 ~+125
Storage temperature range	$T_{STG}$	°C	-55 ~+150
Typical thermal resistance	$R_{\theta JA}$	°C /W	667

● **Electrical Characteristics** (Ta=25°C Unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum forward voltage	I <sub>F</sub> =10mA	V <sub>F</sub>	V	—	0.304	0.39
	I <sub>F</sub> =100mA			—	0.446	0.55
Maximum reverse current	V <sub>R</sub> =10V	I <sub>R</sub>	μA	—	0.605	1
	V <sub>R</sub> =40V			—	2.837	10

● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



# RB520S-40

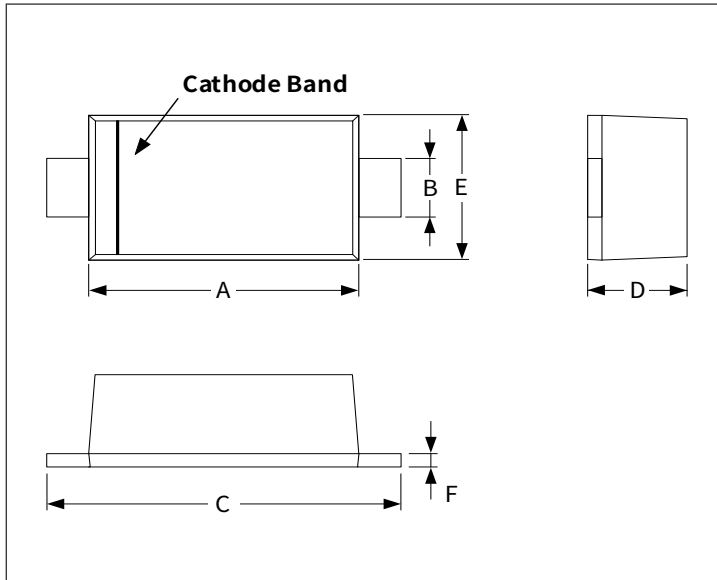
SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## ● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-523	R1	0.002	3000	45000	180000	7"

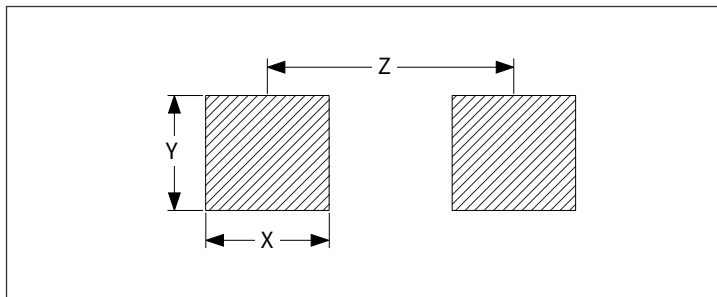
## ● Package Outline Dimensions (SOD-523)

Symbol	Dimensions			
	Millimeters		Inches	
	Min	Max	Min	Max
A	1.10	1.30	0.043	0.051
B	0.500	0.700	0.020	0.028
C	0.250	0.350	0.010	0.014
D	0.080	0.150	0.003	0.006
E	0.750	0.850	0.030	0.033
F	1.100	1.300	0.043	0.051



## ● Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
X	0.55	0.65	0.022	0.026
Y	1.05	1.15	0.041	0.045
Z	0.75	0.85	0.030	0.033



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