

# OM SENI

## SOD-523 Surface Mount Schottky Barrier Rectifier

### Features

- $V_R=40V$
- $I_{F(AV)}=0.35A$
- Low forward voltage drop
- High reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

### 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

### Function Diagram



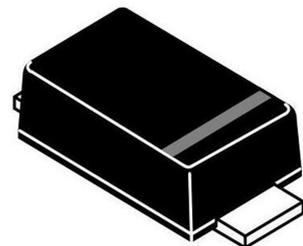
**B5819WT**

**Reverse Voltage**

40 V

**Forward Current**

0.35 Ampere



**SOD-523**

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

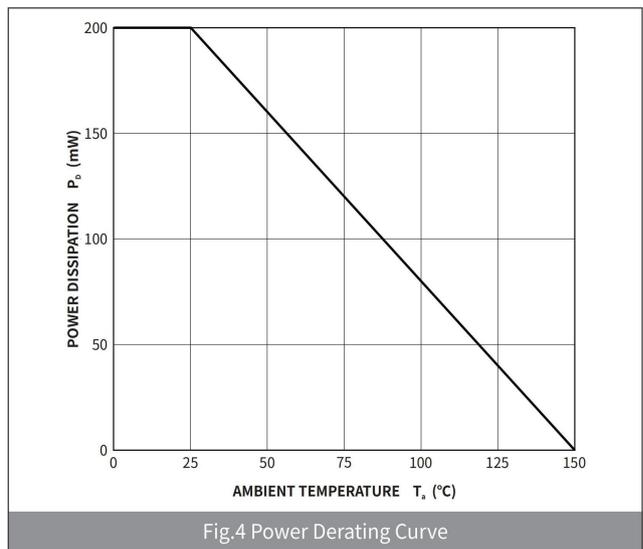
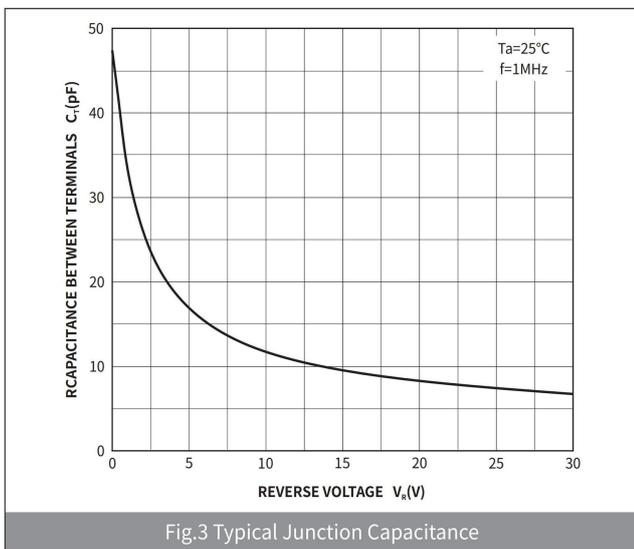
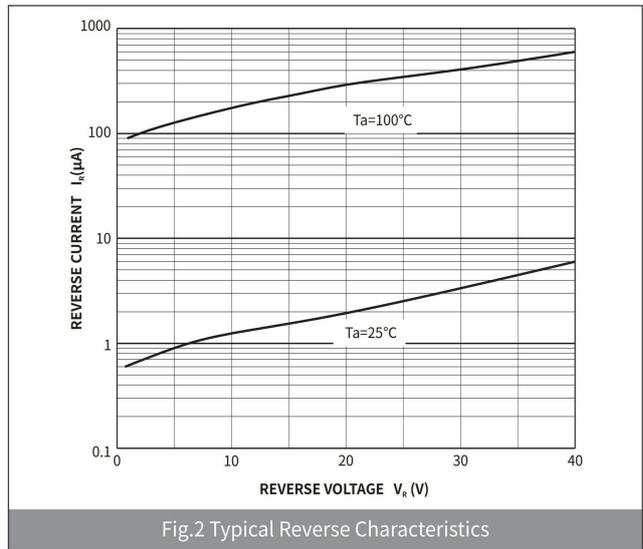
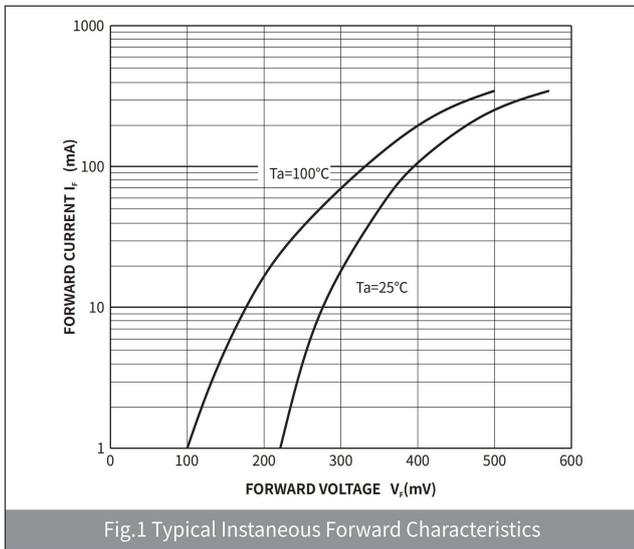
PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	$V_{RRM}$	V	40
Maximum RMS voltage	$V_{RMS}$	V	28
Maximum DC blocking voltage	$V_{DC}$	V	40
Maximum average forward rectified current	$I_{F(AV)}$	A	0.35
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	1.5
Power Dissipation	$P_D$	mW	200
Junction Temperature	$T_j$	°C	125
Storage temperature range	$T_{STG}$	°C	-55 ~+150
Typical thermal resistance	$R_{\theta JA}$	°C /W	660

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

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Type	Max
Maximum forward voltage	I <sub>F</sub> =20mA	V <sub>F</sub>	V	—	—	0.37
	I <sub>F</sub> =200mA			—	—	0.6
Maximum reverse current	V <sub>R</sub> =30V	I <sub>R</sub>	μA	—	—	5.0
Capacitance between terminals	V <sub>R</sub> =4V, f = 1.0MHz	C <sub>T</sub>	pF	—	50	—
Reverse recovery time	I <sub>F</sub> =I <sub>R</sub> =200mA, I <sub>tr</sub> =0.1×I <sub>R</sub> R <sub>L</sub> =100Ω	t <sub>rr</sub>	nS	—	10	—

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



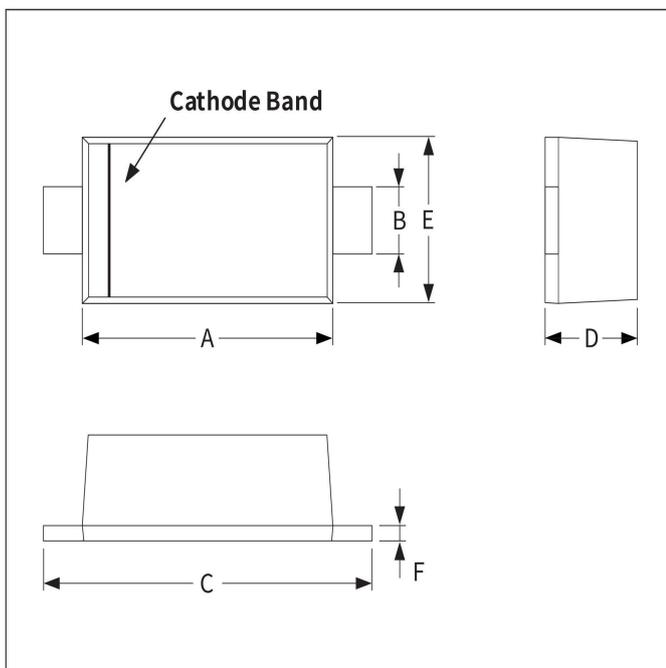
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## Ordering Information

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	0.25	0.35	0.010	0.014
C	1.50	1.70	0.059	0.067
D	0.50	0.70	0.020	0.027
E	0.70	0.90	0.027	0.035
F	0.05	0.20	0.002	0.008



## Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
X	0.55	0.65	0.022	0.026
Y	0.65	0.75	0.026	0.029
Z	1.37	1.47	0.054	0.058

