

SOD-523 Plastic-Encapsulate Diodes

B5819WT SCHOTTKY BARRIER DIODES

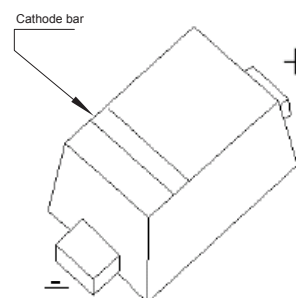
FEATURES

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

Marking



SOD-523



Mechanical Data

Case : SOD-523

Terminals : Solderable per MIL-STD-750, Method 2026



Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25°C

Parameter	Symbo	B5819WT	Unit
Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Rectified Output Current	I_O	1	A
Non-Repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	5	A
Power Dissipation	P_d	250	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	400	°C/W
Storage Temperature	T_j, T_{stg}	-50~+125	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V_F			0.60	V	$I_F=1A$
Reverse current	I_R			1.0 10	mA	$T_j = 25^\circ C$ $T_j = 100^\circ C$
Capacitance between terminals	C_j			120	pF	$V_R=4V, f=1MHz$

The above data are for reference only.

Typical Characterisitics

Fig.1 Power Derating Curve

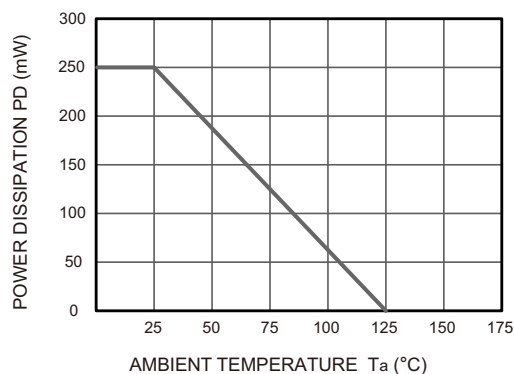


Fig.2 Typical Reverse Characteristics

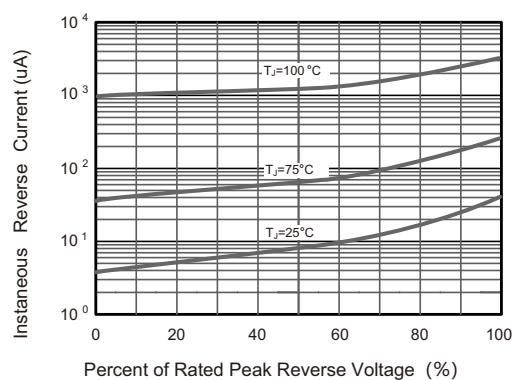


Fig.3 TYPICAL FORWARD VOLTAGE

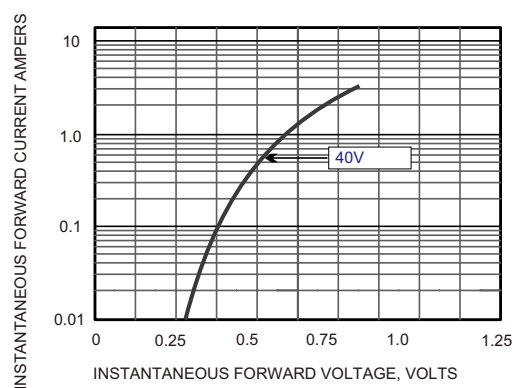
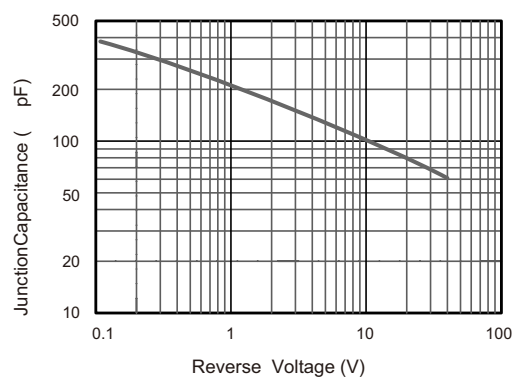


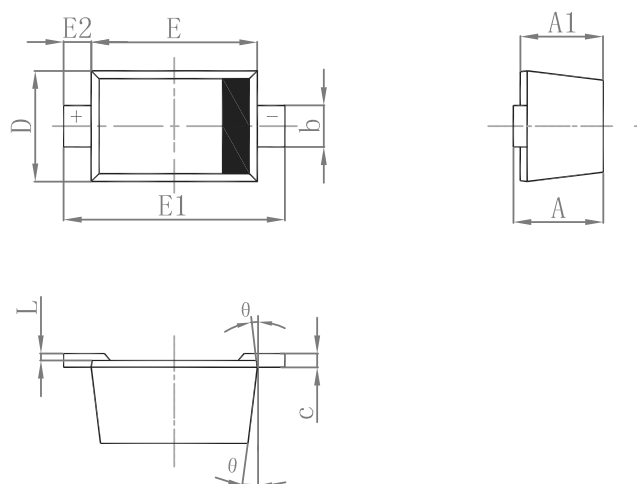
Fig.4 Typical Junction Capacitance



The curve above is for reference only.

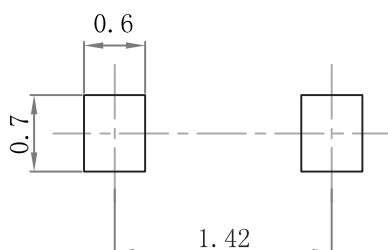
Outline Drawing

SOD-523 Package Outline Dimensions



Sym ol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.770	0.020	0.031
b	0.250	0.400	0.010	0.016
c	0.080	0.150	0.003	0.006
D	0.750	1.000	0.030	0.040
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.150	0.250	0.006	0.010
L	0.000	0.070	0.000	0.003
K	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in/millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

PACKAGE SPECIFICATIONS

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (pcs)	Box Size (mm)	QTY/Box (pcs)	Carton Size (mm)	Q'TY/Carton (pcs)
SOD-523	7'	178	3000	183×188×80	45,000	386×265×215	180,000

Important Notice and Disclaimer

Microdiode Electronics (Jiangsu) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

Microdiode Electronics (Jiangsu) makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Microdiode Electronics (Jiangsu) assume any liability for application assistance or customer product design. Microdiode Electronics (Jiangsu) does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of Microdiode Electronics (Jiangsu).

Microdiode Electronics (Jiangsu) products are not authorized for use as critical components in life support devices or systems without express written approval of Microdiode Electronics (Jiangsu).