



B5819WT

SOD-523 Plastic-Encapsulate Schottky Barrier Diode

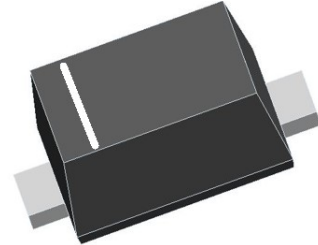
Features

- Very Small SMD Package
- Low Forward Voltage Drop
- Low Voltage Rectification
- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications

Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Epoxy UL: 94V-0
- Mounting Position: Any

SOD-523



MARKING: 4A

Maximum Ratings & Thermal Characteristics (Ratings at 25°C ambient temperature unless otherwise specified.)

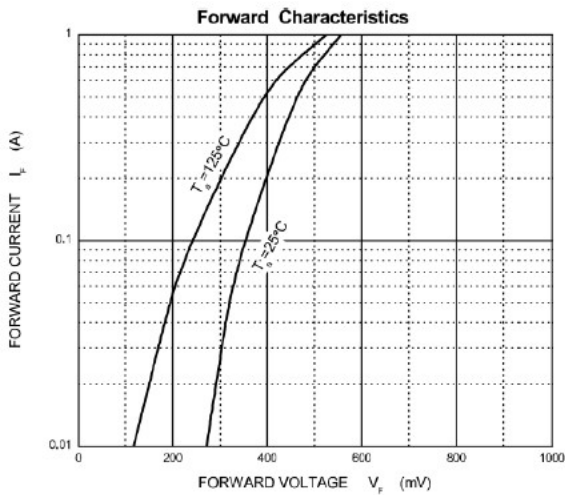
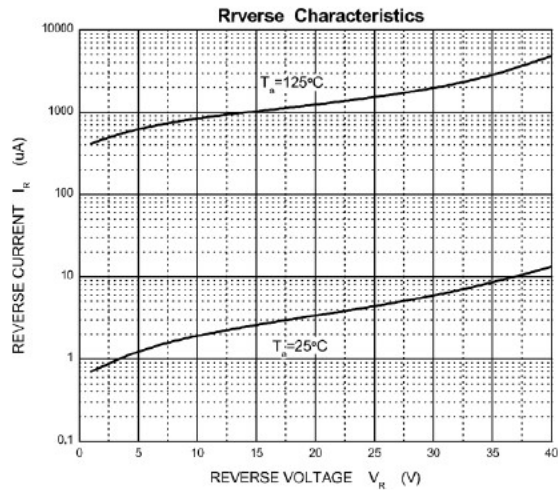
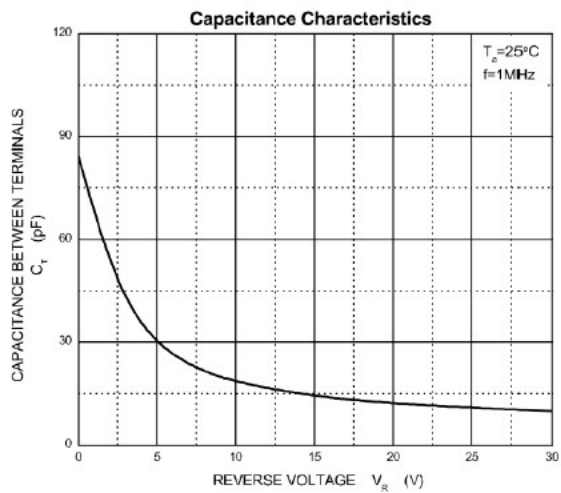
Parameters	Symbol	Limit	Unit
DC reverse voltage	VR	40	V
Mean rectifying current	IO	1	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	IFSM	7	A
Typical thermal resistance*	RθJA	250	°C/W
Power Dissipation	PD	500	mW
Junction Temperature	TJ	-40 ~ +125	°C
Storage temperature range	TSTG	-55 ~ +150	°C

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified).

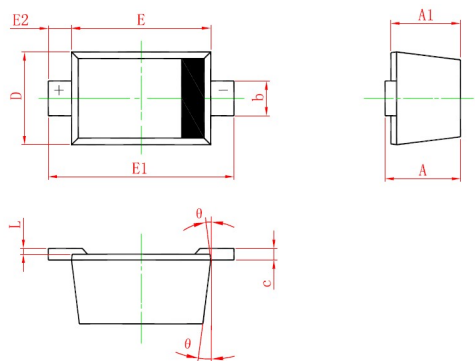
Parameters	Symbol	Test conditions	Min	Typ	Max	Unit
Forward voltage	VF1	IF=0.1A		0.35	0.38	V
	VF2	IF=0.2A		0.37	0.40	
	VF3	IF=0.5A		0.42	0.49	
	VF4	IF=0.7A		0.47	0.55	
	VF5	IF=1A		0.51	0.61	
Reverse breakdown voltage	VBR	IR=1mA	40			V
Reverse voltage leakage current	IR	VR=40V		10	40	uA
Total capacitance	Ctot	VR=10V, f=1MHz		19		pF

Rating and Characteristic Curves

B5819WT

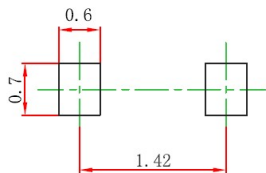


SOD-523 PACKAGE OUTLINE Plastic surface mounted package



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.380	0.010	0.015
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 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.