TL-B5819WT

SOD523 SCHOTTKY BARRIER DIODE

General description

General Application Schottky barrier rectifier, encapsulated in a SOD523 leadless ultra small Surface-Mounted Device (SMD) plastic package.

Features and benefits

- Average forward current: IF(AV) ≤ 1.0A
- Reverse voltage: VR ≤ 40 V
- Low forward voltage: VF ≤ 600 mV @1.0A
- Low reverse current: IR ≤ 10.0μA@40V
- Leadless ultra small SMD plastic package
- We declare that the material of product compliance with RoHS requirements and Halogen Free

SOD-523

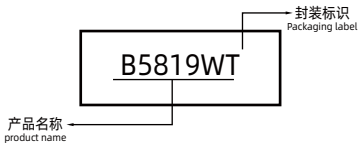
Application information

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications

Ordering information

Device	Package	Reel Size	Qty(PCS)
B5819WT	SOD523	7 Inch	3000

Ordering information

Marking	Naming rule	Graphic symbol
SL		

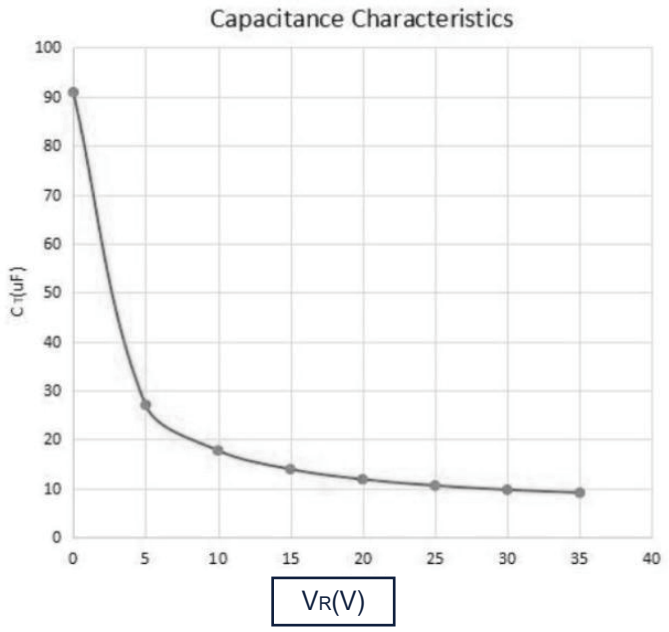
Maximum Ratings (T_A = 25 °C, unless otherwise specified)

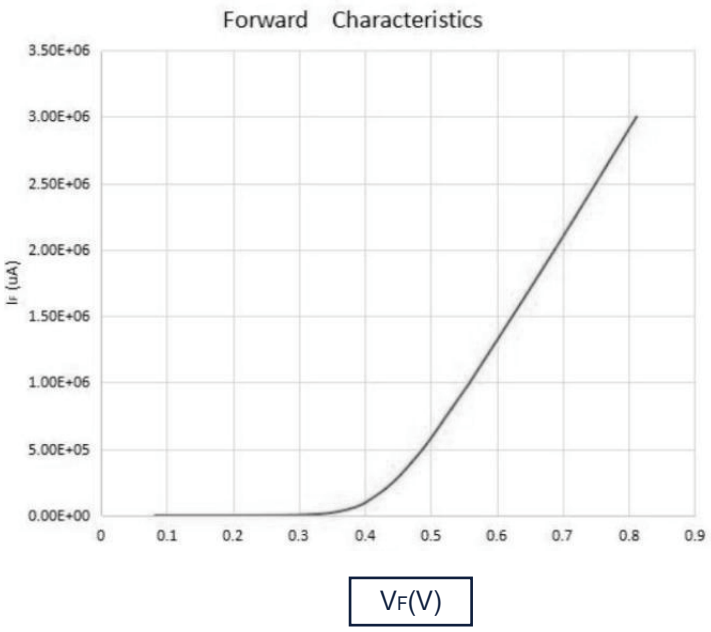
Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Average rectifierd forward current	I_O	1.0	A
Non-repetitive Peak Forward Surge Current @ t=8.3ms	I_{FSM}	7.0	A
Power Dissipation	P_D	0.5	W
Junction temperature	T_j	-40 to 125	°C
Storage temperature	T_{stg}	-50 to 150	°C

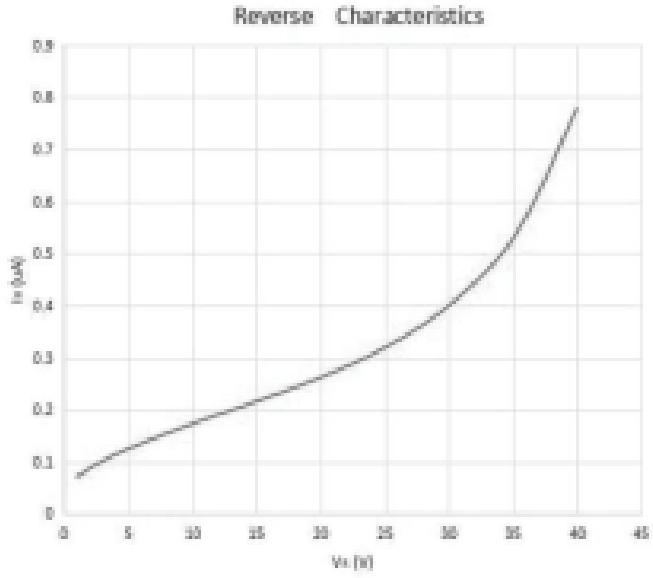
Electrical Characteristics (T_A = 25 °C, unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse voltage	V_{BR}	40	--	--	V	I_R=1mA
Reverse current	I_R	--	--	10.0	uA	V_R=40V
Reverse current	I_R	--	--	1.0	uA	V_R=10V
Forward voltage	VF	--	--	0.60	V	I_F=1.0A
		--	--	0.45	V	I_F=0.2A
		--	--	0.42	V	I_F=0.1A
Capacitance between terminals	C_T	--	91	--	pF	V_R=0V, f=1MHz

Typical Characteristics

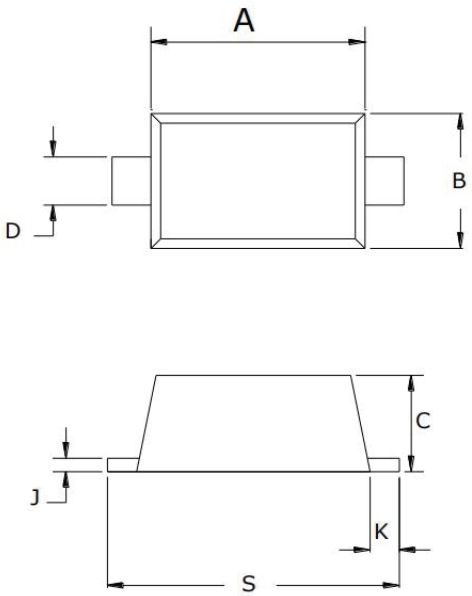






Package Outline Dimensions

SOD523



SYMBOL	MILLIMETERS	
	MIN	MAX
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
J	0.07	0.20
K	0.15	0.25
S	1.50	1.70

Soldering Footprint (mm)