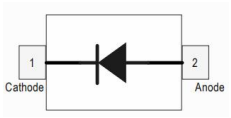
SCHOTTKY BARRIER DIODE

General description

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



SOD523



Features and benefits

- Average forward current: $I_{F(AV)}$: 200 mA
- Reverse voltage: V_R: 40 V
- Low forward voltage: $V_F \leqslant$ 500 mV @200mA
- Leadless ultra small SMD plastic package
- We declare that the material of product compliance with RoHS requirements and Halogen Free

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	Marking	Packaging
RB521S-40	SOD523		3000/Tape & Reel

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

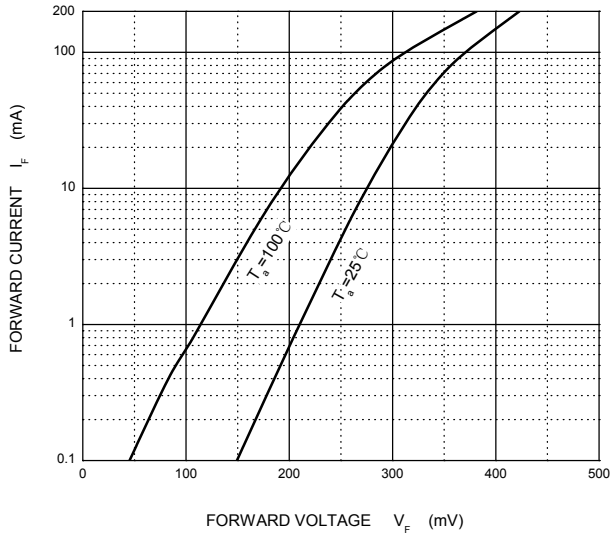
Symbol	Parameter	Value	Unit
V_{RM}	Non-repetitive peak reverse voltage	45	V
V_{RRM}	Peak repetitive reverse voltage	40	V
V_{RWM}	Working peak reverse voltage		
$V_{R(RMS)}$	RMS reverse voltage	28	V
I_O	Average rectified output current	200	mA
I_{FSM}	Non-repetitive peak forward surge current @t=8.3ms	1	A
P_D	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance from junction to ambient	667	℃/W
T_J	Operating Junction Temperature Range	-40~+125	℃
T_{stg}	Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

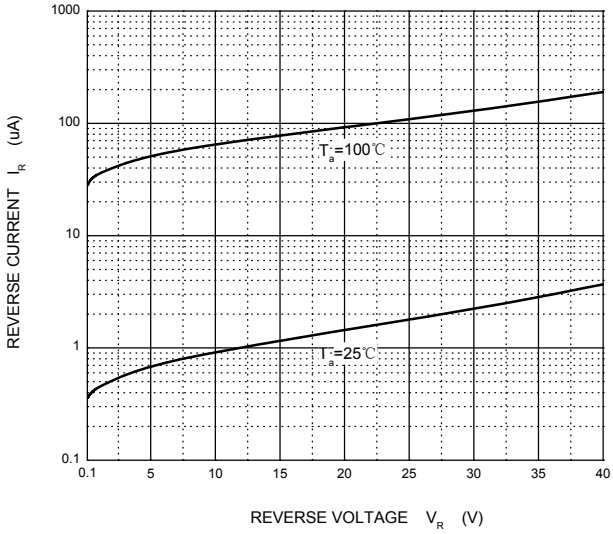
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=0.1mA	40			V
Reverse current	I_R	V_R=10V			20	μA
		V_R=40V			90	
Forward voltage	V_F	I_F=10mA	0.16		0.3	V
		I_F=100mA	0.31		0.45	
		I_F=200mA	0.41		0.54	

Typical Characteristics

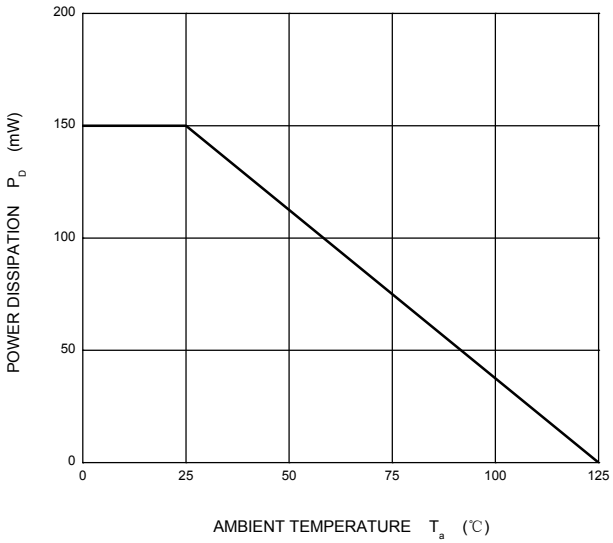
Forward Characteristics



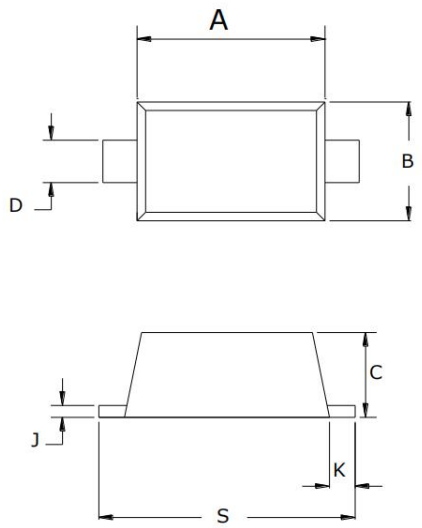
Reverse Characteristics



Power Derating Curve



Package Outline Dimensions SOD523



SYMBOL	Dimensions In Millimet	
	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

Suggested Pad Layout

