

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: $V_F \leq 500 \text{ mV @ } 200 \text{ mA}$
- 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
AS02B40T	SOD523		3000/Tape & Reel

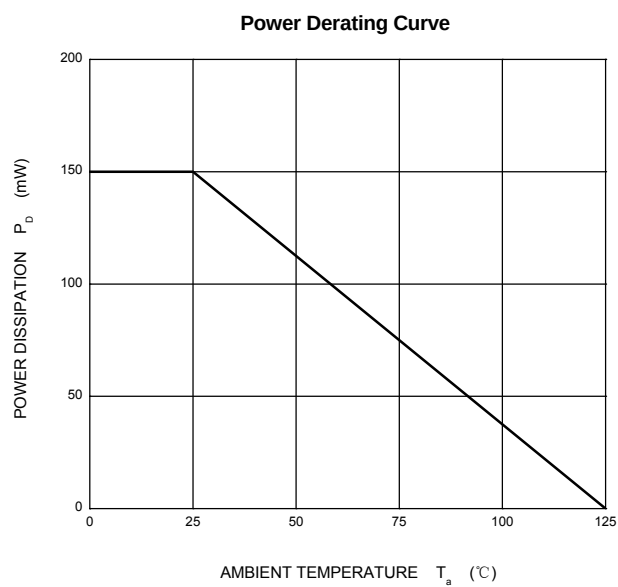
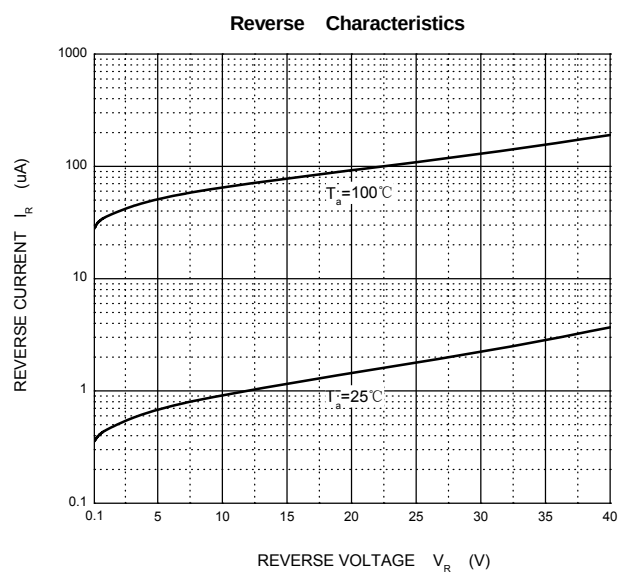
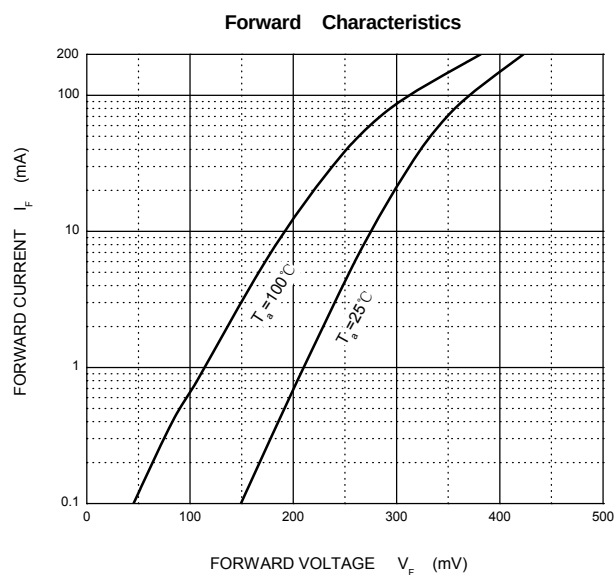
SCHOTTKY BARRIER DIODE
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

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 @ $t=8.3\text{ms}$	1	A
P_D	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance from junction to ambient	667	$^{\circ}\text{C/W}$
T_J	Operating Junction Temperature Range	$-40\sim+125$	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	$-55\sim+150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

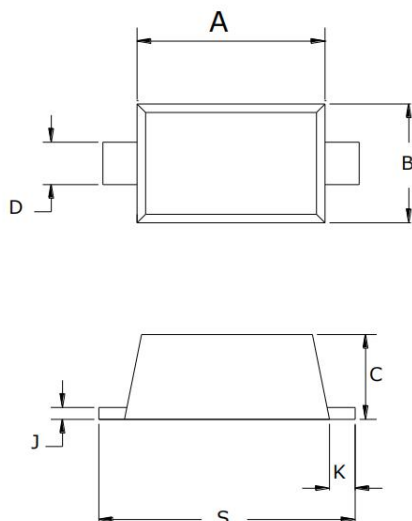
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1\text{mA}$	40			V
Reverse current	I_R	$V_R=10\text{V}$			20	μA
		$V_R=40\text{V}$			90	
Forward voltage	V_F	$I_F=10\text{mA}$	0.16		0.3	V
		$I_F=100\text{mA}$	0.31		0.45	
		$I_F=200\text{mA}$	0.41		0.54	

Typical Characteristics



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

