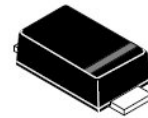


Low V_F Schottky Barrier Diode

Features

- 1A Average rectified forward current
- Low forward voltage
- Low leakage current
- SOD-123FL package



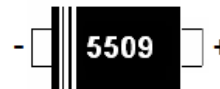
SOD-123FL



Circuit

Applications

- Switching circuit
- Middle current rectification



Marking

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	V_{RM}	20	V
Reverse voltage (DC)	V_R	20	V
Average rectified forward current	I_O	1	A
Peak repetitive forward current at rated V_R – Note1	I_{FRM}	2	A
Peak forward surge current – Note2	I_{FSM}	20	A
Operating temperature	T_{opr}	-40 ~ 85	°C
Storage temperature	T_{stg}	-40 ~ 125	°C

Electronics characteristics ($T_A=25^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	$I_F=1\text{A}$		0.41	0.50	V
		$I_F=2\text{A}$		0.46	0.55	V
Reverse current	I_R	$V_R=20\text{V}$			100	uA
Junction capacitance	C_J	$V_R=4\text{V}, F=1\text{MHz}$		70		pF

Thermal Resistance Ratings

Symbol	Parameter	Typ.	Unit
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient – Note3	325	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead – Note3	26	°C/W

Order Informations

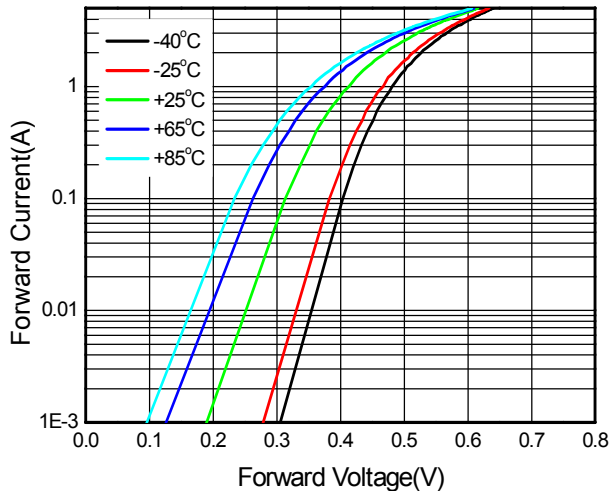
Device	Package	Shipping
WSB5509L-2/TR	SOD-123FL	3000/Reel&Tape

Note 1: $T_L=75^\circ\text{C}$, 100KHz square wave.

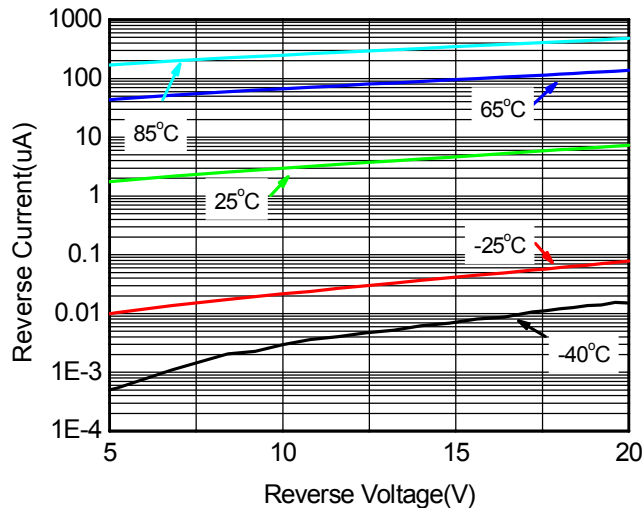
Note 2: 8.3ms single half-sine-wave superimposed on rated load

Note 3: Mounted with minimum recommended pad size, PC Board FR4.

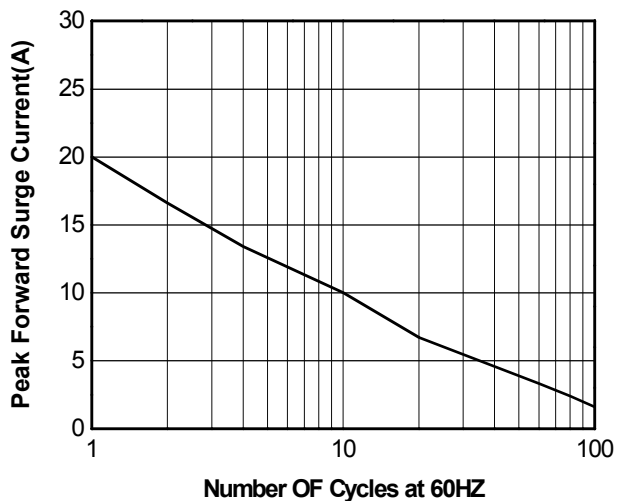
Typical characteristics ($T_A=25^\circ\text{C}$, unless otherwise noted)



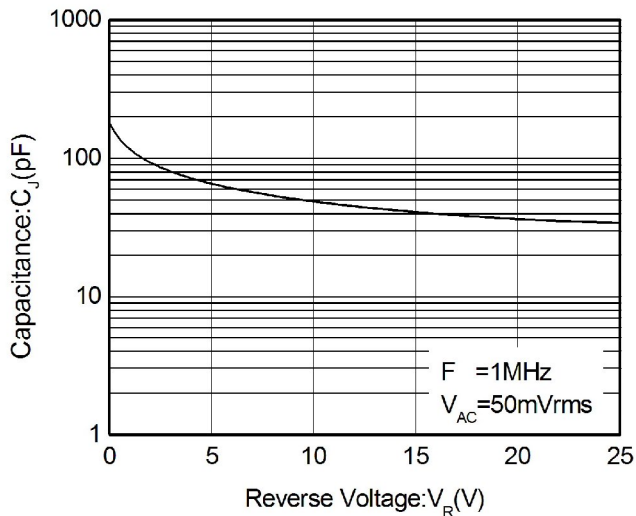
Forward voltage vs. Forward current



Reverse current vs. Reverse voltage



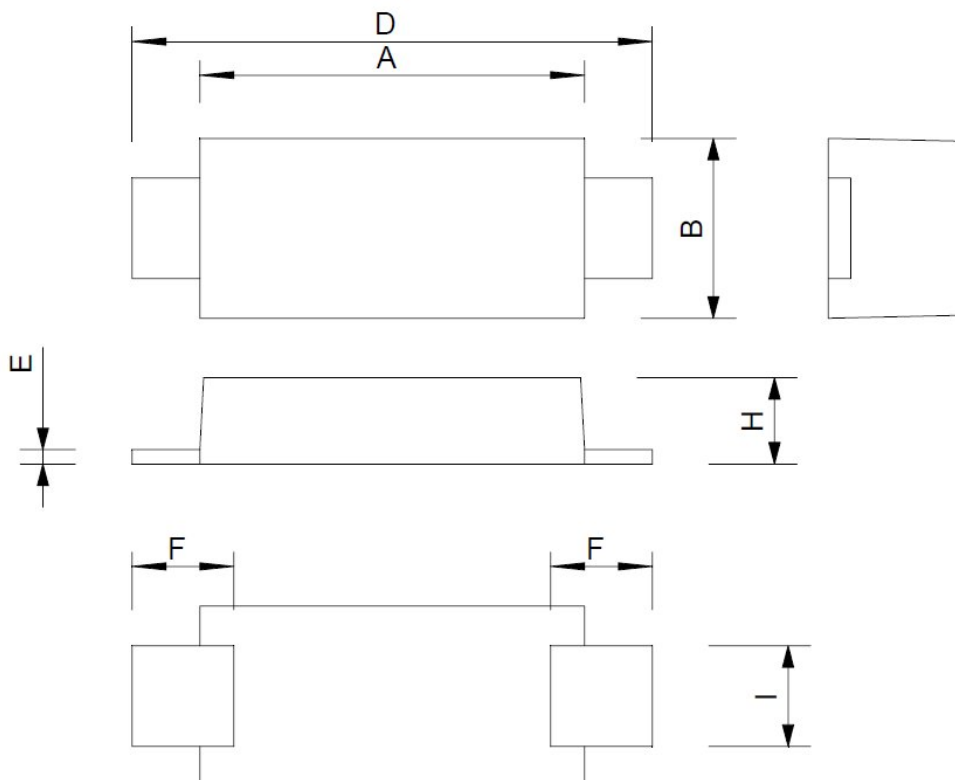
Peak forward Surge current



Junction capacitance vs. Reverse voltage

Package outline dimensions

SOD-123FL



SOD-123FL		
Dim	Min	Max
A	2.72	2.82
B	1.75	1.85
D★	3.67	3.74
E	0.15	0.25
F	0.40	0.70
H★	1.17	1.24
I	0.85	1.15
All Dimensions in mm		