

Low V_F Schottky Barrier Diode

Description

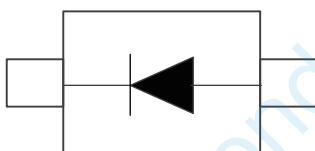
These Schottky barrier diodes are optimized for low forward voltage drop and low leakage current that offers the most optimal power dissipation in applications. They are housed in spacing saving micro-packaging ideal for space constraint applications.

Features

- ✧ Low Forward Voltage Drop: 450 mV (Max.) @ $I_F = 100$ mA
- ✧ Low Reverse Current
- ✧ 200 mA of Continuous Forward Current
- ✧ High Switching Speed
- ✧ Pb-Free, Halogen Free and RoHS Compliant

Applications

- ✧ Low current rectification
- ✧ Buck and Boost dc-dc Converters
- ✧ Reverse Voltage and Current Protection



Circuit Diagram



SOD523

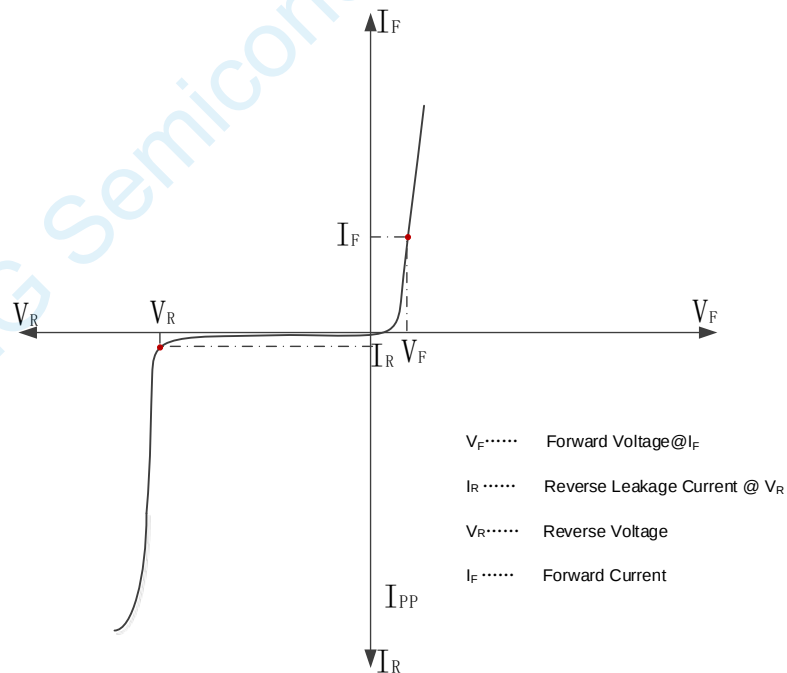
Absolute Maximum Rating ($T_A = 25$ °C, unless otherwise specified)

Rating	Symbol	Value	Units
Reverse Voltage (DC)	V_R	30	V
Forward Current (DC)	I_F	200	mA
Forward Surge Current (60 Hz @ 1 cycle)	I_{FSM}	1	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-40~+150	°C

Electrical Characteristics ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

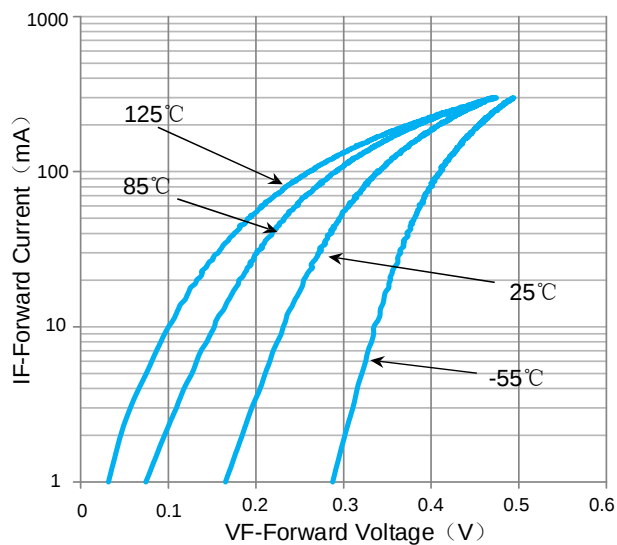
Parameter	Symbol	Conditions	Min.	Typical	Max.	Units
Reverse Voltage	V_R	$I_R=0.1\text{mA}$	30			V
Reverse Leakage	I_R	$V_R=10\text{V}$ $V_R=20\text{V}$		0.2 0.5	1 2	μA
Forward Voltage	V_F	$I_F=10\text{mA}$ $I_F=20\text{mA}$ $I_F=100\text{mA}$ $I_F=200\text{mA}$			0.35 0.38 0.45 0.52	V
Total Capacitance	C_T	$V_R = 1\text{V}$, $f = 1\text{MHz}$		55		pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mAdc}$ $I_{R(\text{REC})} = 1.0\text{ mAdc}$			5.0	ns

Electrical Parameters ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

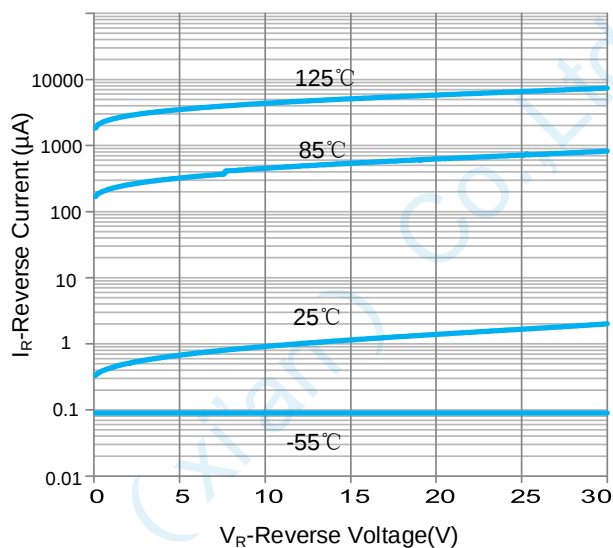


Typical Characteristics ($T_A = 25^\circ\text{C}$, unless otherwise specified)

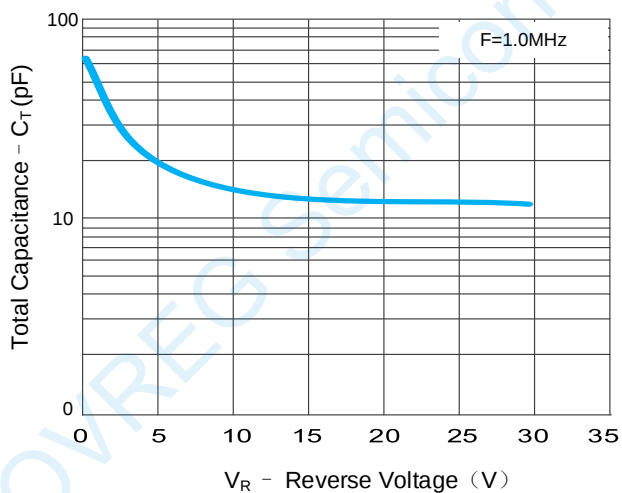
Forward Current vs. Forward Voltage



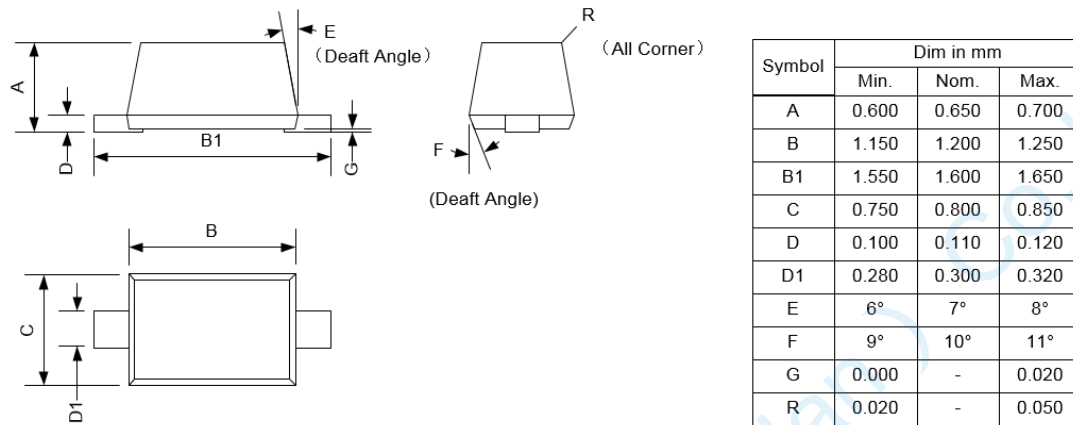
Reverse Characteristic



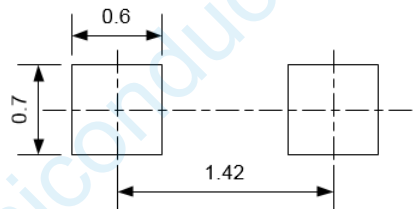
Capacitor Characteristics



Package Information

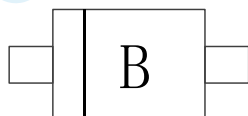


Recommend PCB Layout



Notes: This Pcb Layout Is For Reference Purposes Only

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ	MOQ/internal box	MOQ/carton
OVB82TL37A	GREEN	T/R	7 inch	5k/reel	10reel= 50k/box	4boxes=200k/carton