



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

B0520LW/B0530W/B0540W

SOD-123 Schottky Barrier Rectifier Diode 肖特基势垒整流二极管

SOD-123

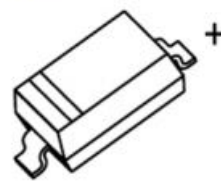
■ Features 特点

High current capability 高电流能力

Low forward voltage drop 低正向压降

Guard Ring Construction for Transient Protection 瞬态保护环结构

Case 封装:SOD-123



■ Maximum Rating 最大额定值

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	B0520LW	B0530W	B0540W	Unit 单位
Device Marking 产品印字		SD	SE	SF	
Peak Reverse Voltage 反向峰值电压	V_{RRM}	20	30	40	V
Peak Reverse Working Voltage 反向峰值工作电压	V_{RWM}	20	30	40	V
DC Reverse Voltage 直流反向电压	V_R	20	30	40	V
RMS Reverse Voltage 反向电压均方根值	$V_{R(RMS)}$	14	21	28	V
Forward Rectified Current 正向整流电流	I_F	0.5			A
Peak Surge Current 峰值浪涌电流	I_{FSM}	5.5			A
Power Dissipation 耗散功率	P_D	500			mW
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	250			$^{\circ}\text{C}/\text{W}$
Junction/Storage Temperature 结温/储藏温度	T_J, T_{stg}	-50to+150			$^{\circ}\text{C}$

■ Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic 特性参数	Symbol 符号	B0520LW	B0530W	B0540W	Unit 单位	Condition 条件
Reverse Voltage 反向电压	V_R	20	30	40	V	$I_R=250\mu\text{A}$ $I_R=200\mu\text{A}$ $I_R=20\mu\text{A}$
Forward Voltage 正向电压	V_F	0.32 0.385	0.375 0.43	0.51 0.62	V	$I_F=0.1\text{A}$ $I_F=0.5\text{A}$ $I_F=1\text{A}$
Reverse Current 反向电流	I_R	75 250	20 130	10 20	μA	$V_R=10\text{V}$ $V_R=15\text{V}$ $V_R=20\text{V}$ $V_R=30\text{V}$ $V_R=40\text{V}$
Diode Capacitance 二极管电容	C_T	170			pF	$V_R=4\text{V}, f=1\text{MHz}$

■ Typical Characteristic Curve 典型特性曲线

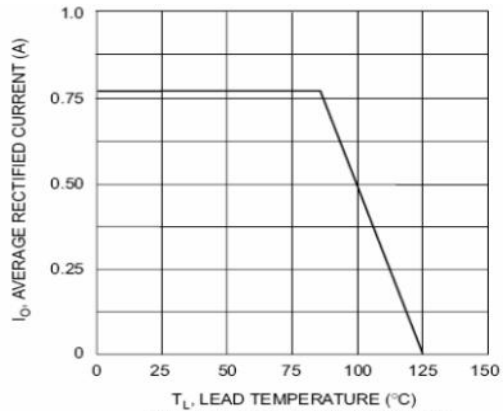


Fig. 1 Forward Current Derating Curve

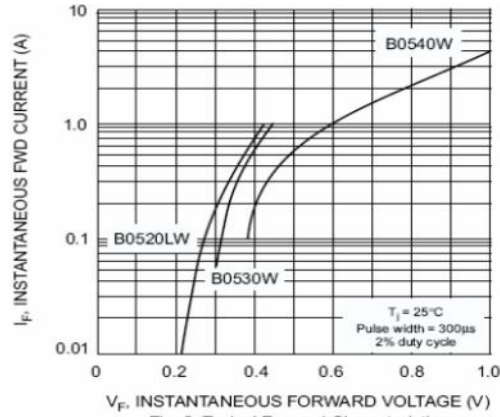


Fig. 2 Typical Forward Characteristics

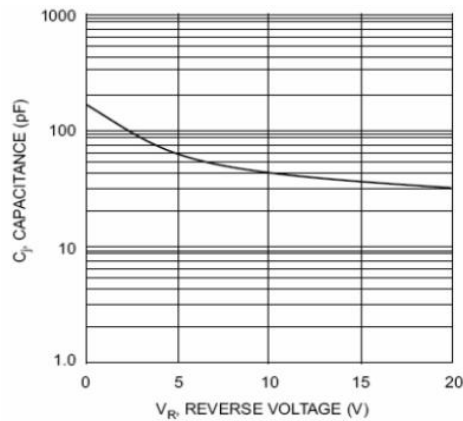
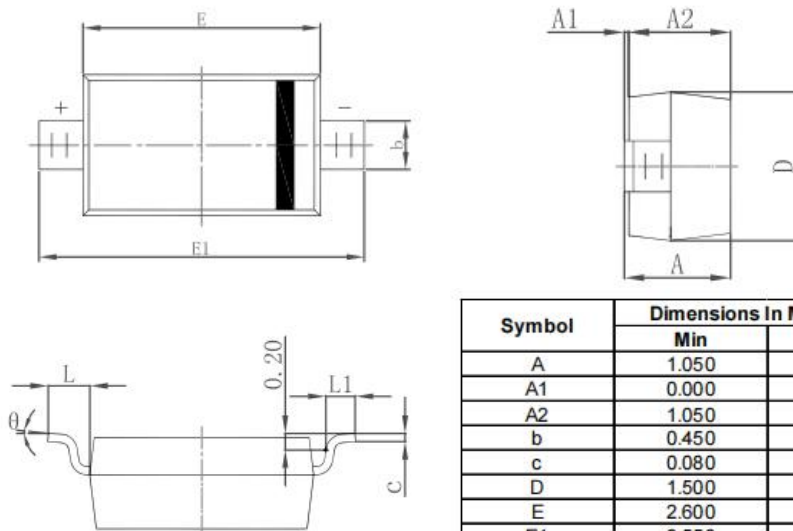


Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

■ Dimension 外形封装尺寸 SOD-123



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°