

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

Low forward voltage drop 低正向压降

High current capability 高电流能力

Surface mount device 表面贴装器件

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	MBR0520W	MBR0530W	MBR0540W	Unit 单位
Device Marking 产品印字		B2	B3	B4	V
Peak Reverse Voltage 反向峰值电压	V_{RRM}	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(8.3ms)	I_{FSM}	25			A
Thermal Resistance J-A 结到环境热阻	$R_{\theta JA}$	200			$^{\circ}\text{C}/\text{W}$
Junction Temperature 结温温度	T_J	$-55\text{to}+125^{\circ}\text{C}$			$^{\circ}\text{C}$
Storage Temperature 储藏温度	T_{stg}	$-55\text{to}+150^{\circ}\text{C}$			$^{\circ}\text{C}$

■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	MBR0520W	MBR0530W	MBR0540W	Unit 单位	Condition 条件
Forward Voltage 正向电压	V_F	0.33 0.39	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	20	μA	$V_R=0.5V_{RRM}$ $V_R=V_{RRM}$
Diode Capacitance 二极管电容	C_T	30			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

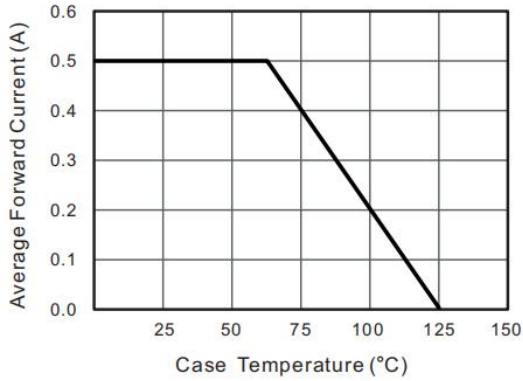


Fig.2 Typical Reverse Characteristics

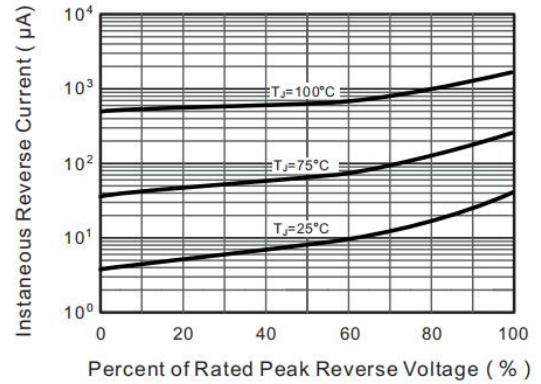


Fig.3 TYPICAL FORWARD VOLTAGE

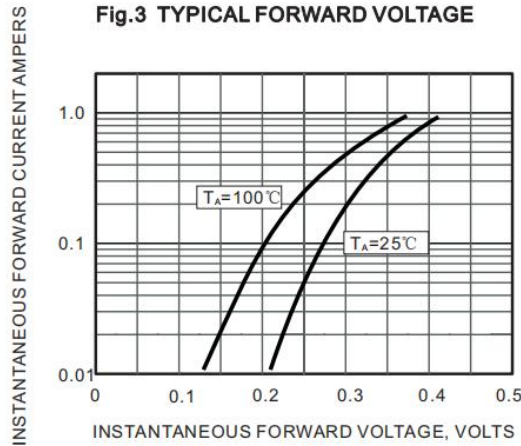


Fig.4 Typical Junction Capacitance

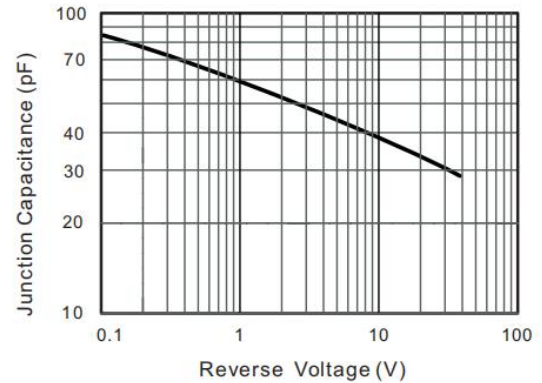


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

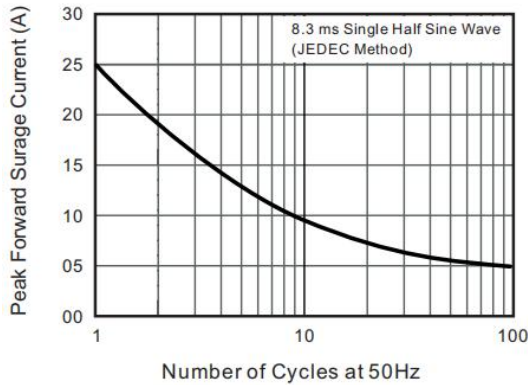
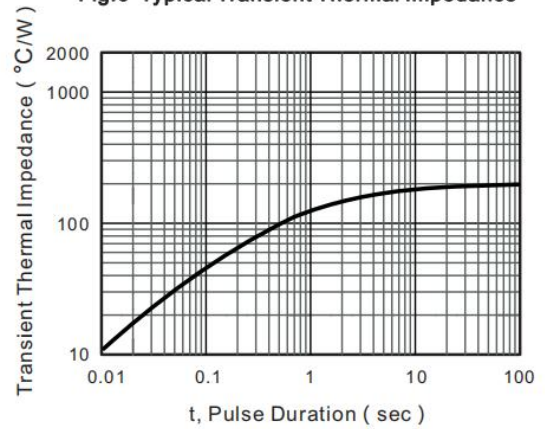
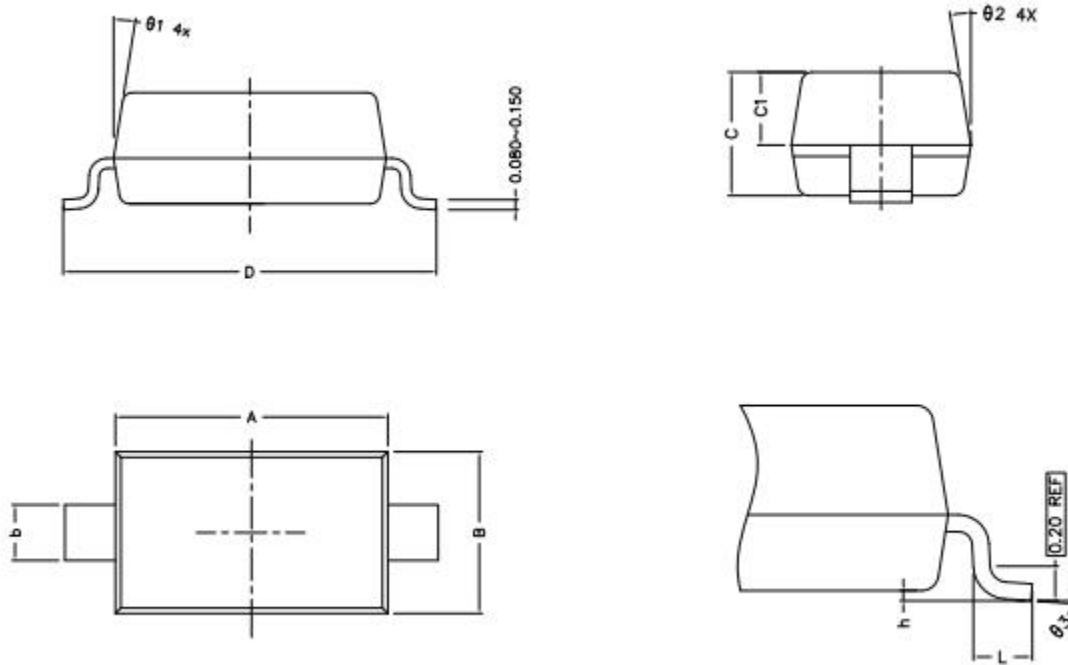


Fig.6 Typical Transient Thermal Impedance



■ Dimension 外形封装尺寸 SOD-123



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	2.600	2.800	0.102	0.110
B	1.500	1.700	0.059	0.067
C	1.050	1.150	0.041	0.045
C1	0.600	0.700	0.024	0.028
D	3.550	3.850	0.140	0.152
L	0.250	0.450	0.010	0.018
b	0.450	0.650	0.018	0.026
h	0.020	0.120	0.001	0.005
θ 3	0°	7°	0°	7°