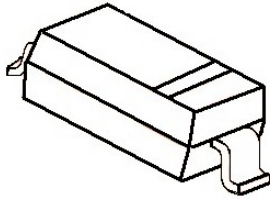


SOD-123

SOD-123 Plastic-Encapsulate Schottky Barrier Diode



Marking: 2E

特征 Features

- 大电流承受能力.High Current Capability
- 正向压降低.Low Forward Voltage Drop
- 漏电流小.Low IR

机械数据 Mechanical Data

- 封装: SOD-123 封装 SOD-123 Small Outline Plastic Package
- 极性: 色环端为负极 Polarity: Color band denotes cathode end
- 环氧树脂 UL 易燃等级 Epoxy UL: 94V-0
- 安装位置: 任意 Mounting Position: Any

极限值和温度特性(TA = 25℃ 除非另有规定)

Maximum Ratings & Thermal Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
最大可重复峰值反向电压 Maximum repetitive peak reverse voltage	VRRM	20	V
最大直流阻断电压 Maximum DC blocking voltage	VDC	20	V
平均输出整流电流 Average Rectified Forward Current(At Rated VRB,TL=115℃)	IO	1.0	A
峰值重复正向电流 Peak Repetitive Forward Current(At Rated Vr, Square Wave, 100KHz,TL=100℃)	IFRM	2.0	A
峰值正向浪涌电流 8.3ms 单一正弦半波 Peak forward surge current 8.3 ms single half sine-wave	IFSM	5.5	A
典型热阻 Typical thermal resistance	RθJA	250	℃/W
功率消耗 Power Dissipation	PD	500	mW
存储温度 Storage temperature range	TSTG	-40-+150	℃
结温 Perating Junction Temperature	TJ	-40-+125	℃
Voltage Rate of Change(Rated Vr, TJ=25℃)	dv/dt	10,000	V/us

电特性 (TA = 25℃ 除非另有规定)

Electrical Characteristics (Ratings at 25℃ ambient temperature unless otherwise specified).

参数 Parameters	符号 Symbol	测试条件 Test conditions	数值 Value	单位 Unit
最大正向电压 Maximum forward voltage	VF	IF = 0.1A IF = 1.0A IF = 2.0A	0.455 0.550 0.650	V
最大反向电压 Maximum reverse breakdown voltage	VR	IR=1mA	20	V
最大反向电流 Maximum reverse current	IR	VR=5.0V VR=10V VR=20V	0.5 1.0 10.0	uA

特性曲线 Characteristic Curves

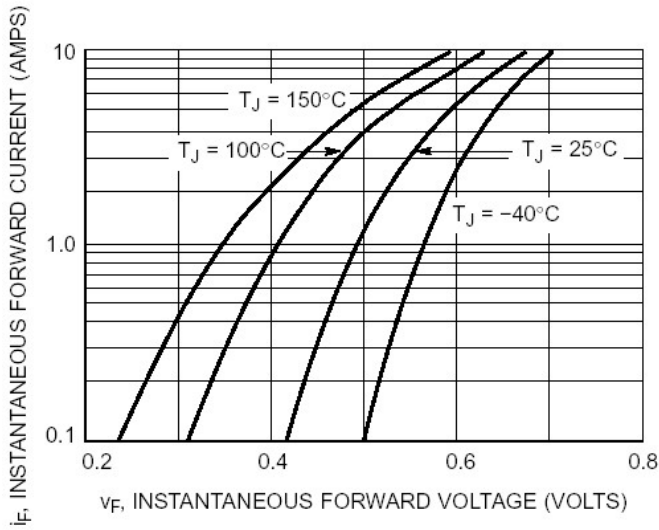


Figure 1. Typical Forward Voltage

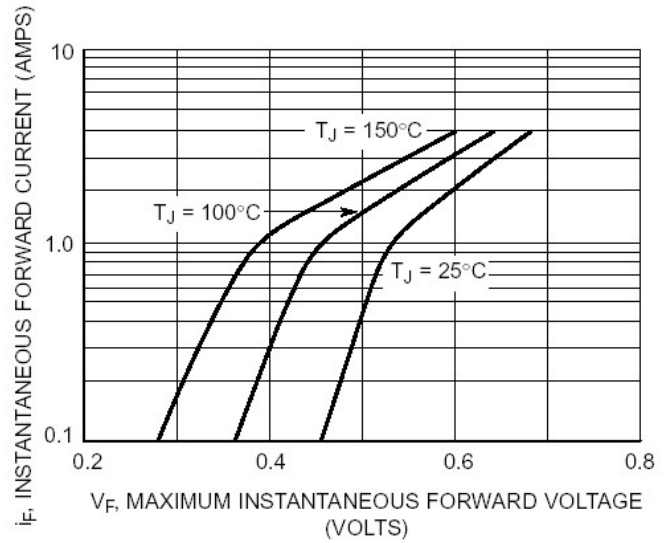


Figure 2. Maximum Forward Voltage

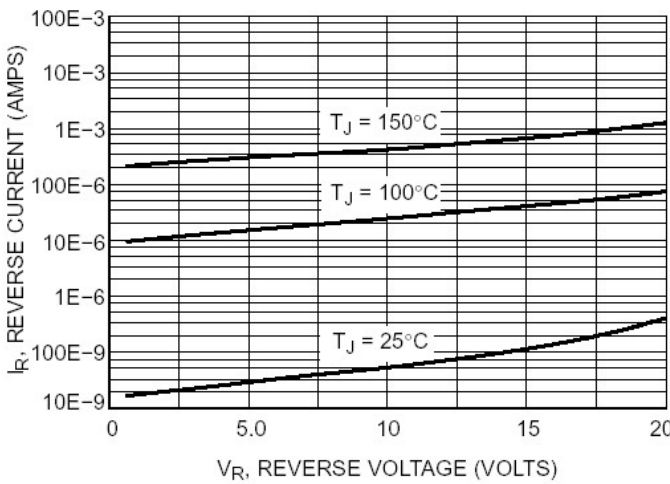


Figure 3. Typical Reverse Current

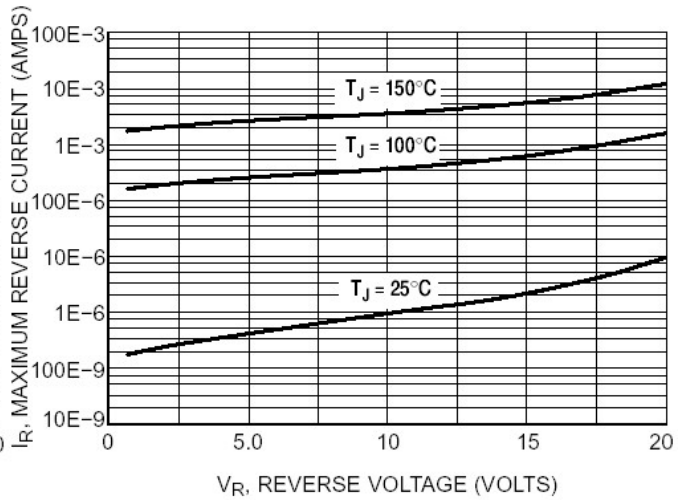


Figure 4. Maximum Reverse Current

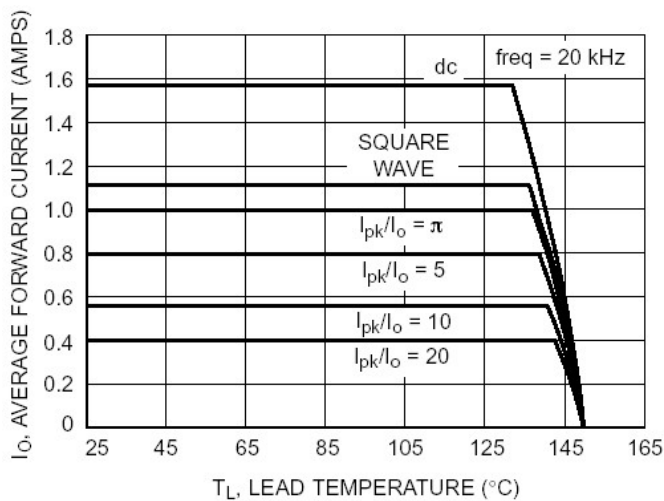


Figure 5. Current Derating

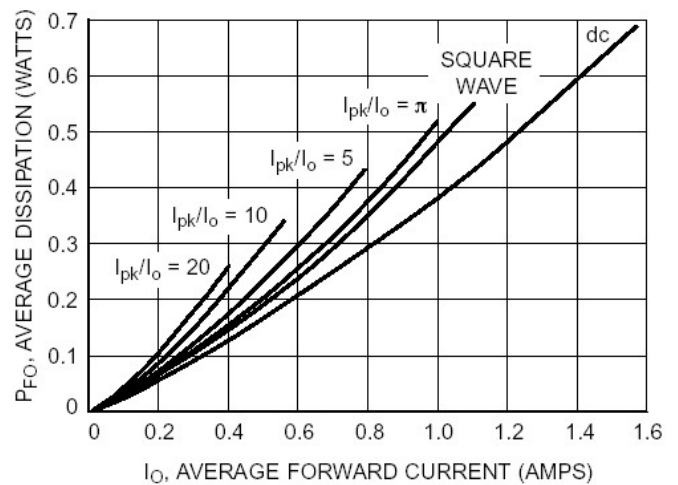
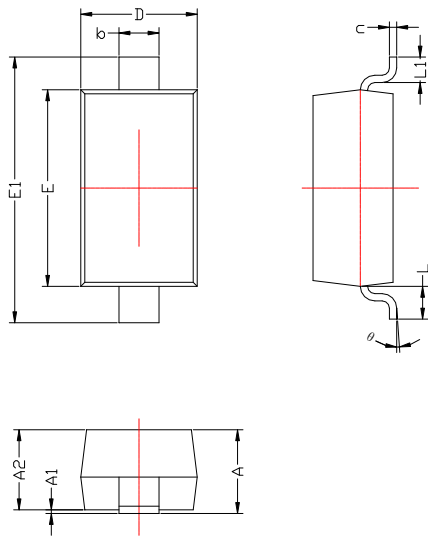


Figure 6. Forward Power Dissipation

# MBR120

## SOD-123 PACKAGE OUTLINE

Plastic surface mounted package

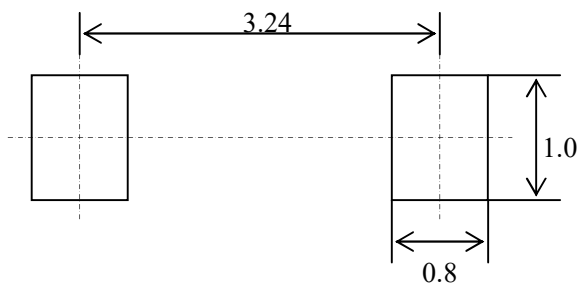


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	1.050	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.450	0.650
c	0.080	0.150
D	1.500	1.700
E	2.600	2.800
E1	3.550	3.850
L	0.500REF	
L1	0.250	0.450
θ	0°	8°

### 焊盘设计参考

Precautions: PCB Design

Recommended land dimensions for SOD-123 diode. Electrode patterns for PCBs



中心距: 3.24  
脚 宽: 0.55  
焊盘宽: 1.00  
脚 长: 0.50  
焊盘长: 0.80

技术要求:

- 1, 塑封体尺寸: 2.70 X 1.60
- 2: 未注公差为:  $\pm 0.05$
- 3, 所有单位: mm