B0520LW
Rev.F Mar.-2016

蓝箭电子
BLUE ROCKET ELECTRONICS
DATA SHEET

描述 / Descriptions

SOD-123 塑封封装 硅半导体二极管。
Silicon Diode in a SOD-123 Plastic Package.

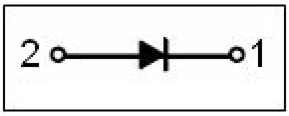
特征 / Features

低正向压降、保护环结构的瞬态保护、高电导。
Low forward voltage drop, Guard ring construction for transient Protection , High conductance.

用途 / Applications

半导体二极管。
Silicon Diode.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning

PIN1:Cathode PIN2:Anode

放大及印章代码 / h_{FE} Classifications & Marking

Marking	HSD

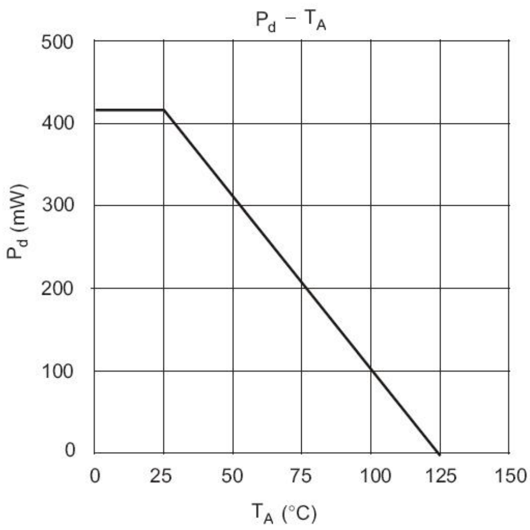
极限参数 / Absolute Maximum Ratings(Ta=25℃)

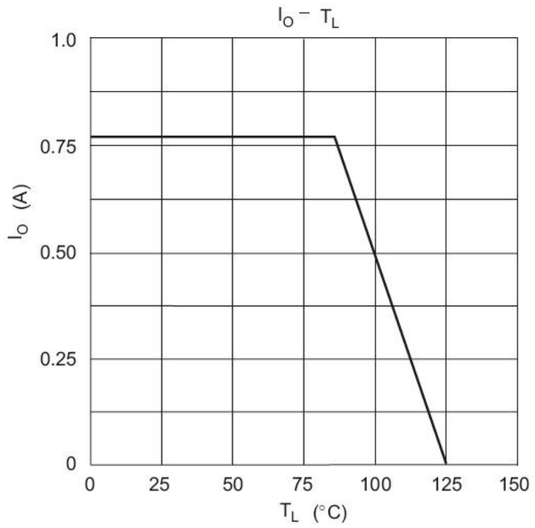
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Peak Repetitive Reverse Voltage	V_{RRM}	20	V
Working Peak Reverse Voltage, DC Reverse Voltage	V_{RWM}, V_R	20	V
RMS Reverse Voltage	$V_{R(RMS)}$	14	V
Non-Repetitive Peak Forward Surge Current	I_{FSM}	5.5	A
Average Rectified Output Current	I_O	0.5	A
Power Dissipation	P_d	410	mW
Typical Thermal Resistance Junction to Ambient	$R_{θJA}$	244	℃/W
Junction and Storage Temperature Range	T_j,T_{STG}	-65~125	℃
Voltage Rate of Change	dv/dt	1000	V/μs

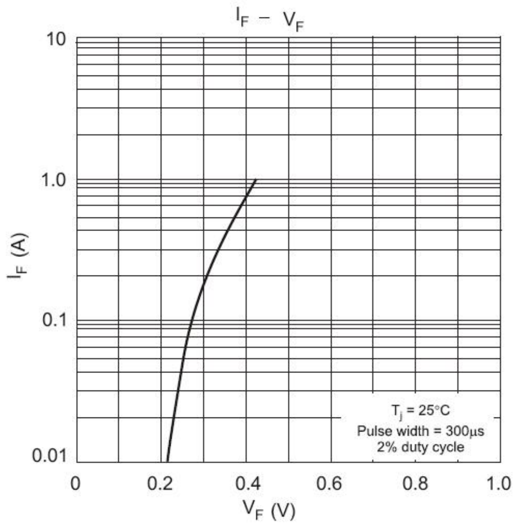
电性能参数 / Electrical Characteristics(Ta=25℃)

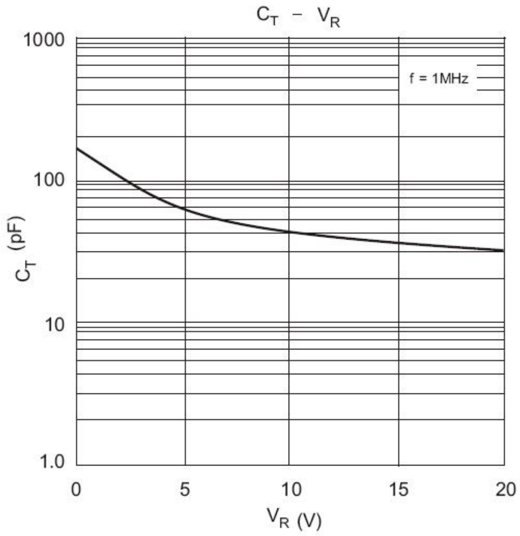
参数 Parameter	符号 Symbol	测试条件 Test Conditions	数值 Rating	单位 Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=250uA	20	V
Peak Forward Voltage	V_{FM}	I_F=100mA T_j =25℃	0.300	V
		I_F=500mA T_j =25℃	0.385	
		I_F=100mA T_j =100℃	0.220	
		I_F=500mA T_j =100℃	0.330	
Instantaneous Reverse Current	I_{RM}	V_{R}=10V T_j=25℃	75	μA
		V_{R}=20V T_j=25℃	250	
		V_{R}=10V T_j=100℃	5.0	mA
		V_{R}=20V T_j=100℃	8.0	
Capacitance	C_J	V_R=0VDC f=1.0MHz	170	pF

电参数曲线图 / Electrical Characteristic Curve

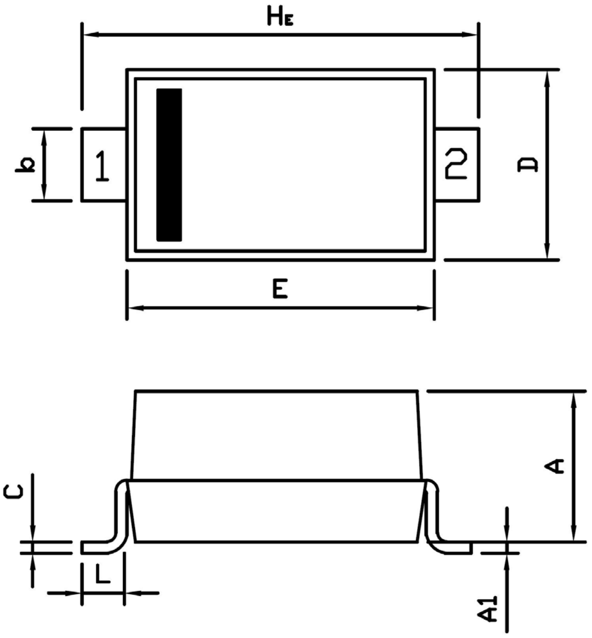








外形尺寸图 / Package Dimensions



Unit: mm

尺寸 符号	SOD-123	
	min	max
A	0.95	1.35
A1	0.01	0.10
b	0.45	0.65
C	0.09	0.12
D	1.50	1.70
E	2.55	2.75
HE	3.45	3.85
L	0.20	0.40

PIN: 1.CATHODE 2.ANODE

SOD-123

印章说明 / Marking Instructions

说明：

H：　为公司代码

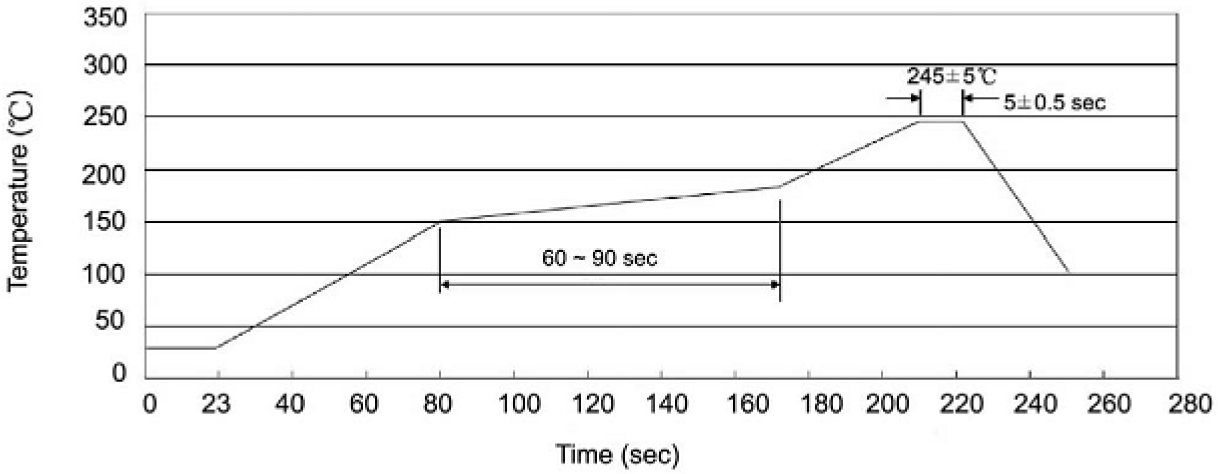
SD：　为型号代码

Note:

H:　Company Code.

SD:　Product Type.

回流焊温度曲线图(无铅)　/　Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：	Note:
1、预热温度 25 ~ 150℃，时间 60 ~ 90sec;	1.Preheating:25~150℃, Time:60~90sec.
2、峰值温度 245±5℃，时间持续为 5±0.5sec;	2.Peak Temp.:245±5℃, Duration:5±0.5sec.
3、焊接制程冷却速度为 2 ~ 10℃/sec.	3. Cooling Speed: 2~10℃/sec.

耐焊接热试验条件　/　Resistance to Soldering Heat Test Conditions

温度：260±5℃　　时间：10±1 sec.　　Temp.:260±5℃　　Time:10±1 sec

包装规格　/　Packaging SPEC.

卷盘包装　/　REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm^3)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOD-123	3,000	10	30,000	8	240,000	7″ ×8	180×120×180	385×257×392

使用说明　/　Notices