BAS316

Rev.F Mar.-2016

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

描述 / Descriptions

SOD-323 塑封封装 硅半导体二极管。

Silicon Diode in a SOD-323 Plastic Package.

特征 / Features

小信号二极管。

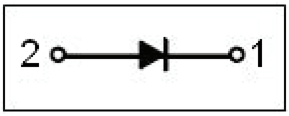
Small signal diode .

用途 / Applications

用于开关电路。

Switching diodes.

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	A6H

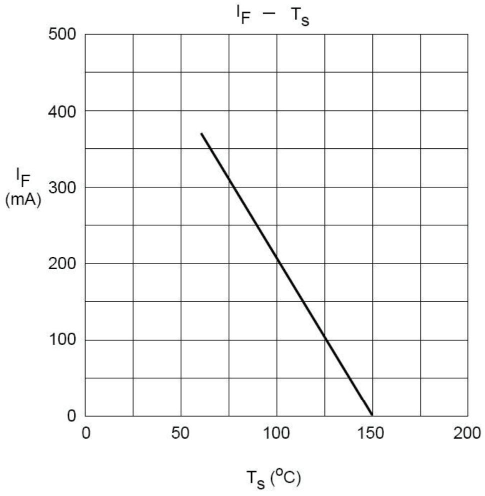
极限参数 / Absolute Maximum Ratings(Ta=25℃)

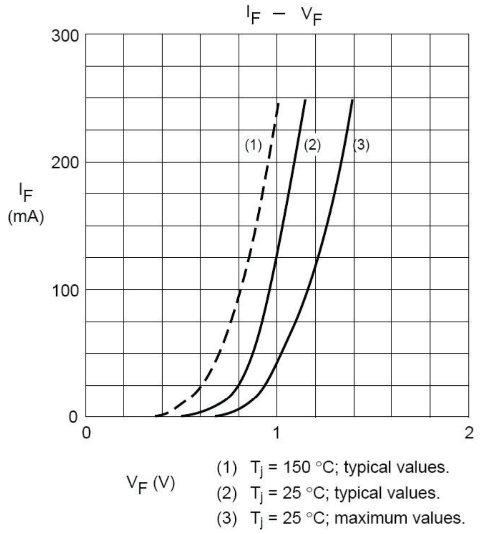
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Repetitive peak reverse voltage	V_{RRM}	85	V
Continuous forward current	$I_{F(AV)}$（Ts=90℃）	250	mA
Non-repetitive peak forward current	$I_{FSM(1)(t=1S)}$	0.5	A
	$I_{FSM(2)(t=1mS)}$	1.0	A
Total power dissipation	P_{tot}（Ts=90℃）	400	mW
Thermal resistance from junction to soldering point	$R_{\theta J\text{-}S}$	150	K/W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-65～150	℃

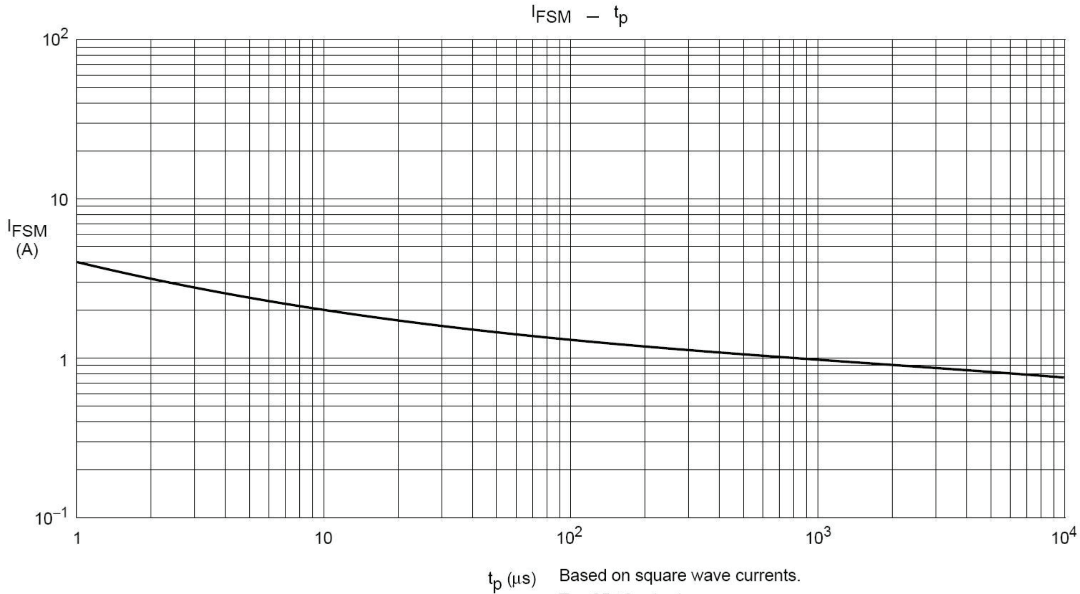
电性能参数 / Electrical Characteristics(Ta=25℃)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Forward Voltage	V_F	I_F=1mA			715	mV
		I_F=10mA			855	mV
		I_F=50mA			1.0	V
		I_F=150mA			1.25	V
Reverse Current	I_R	V_R=25V			30	nA
		V_R=75V			1.0	μA
		V_R=25V T_j=150℃			30	μA
		V_R=75V T_j=150℃			50	μA
Diode capacitance	C_d	V_R=0 f=1.0MHz			1.5	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R$=10mA I_R=1.0mA R_L=100Ω			4.0	ns
Forward recovery voltage	V_{fr}	I_F=10mA T_r=20ns			1.75	V

电参数曲线图 / Electrical Characteristic Curve

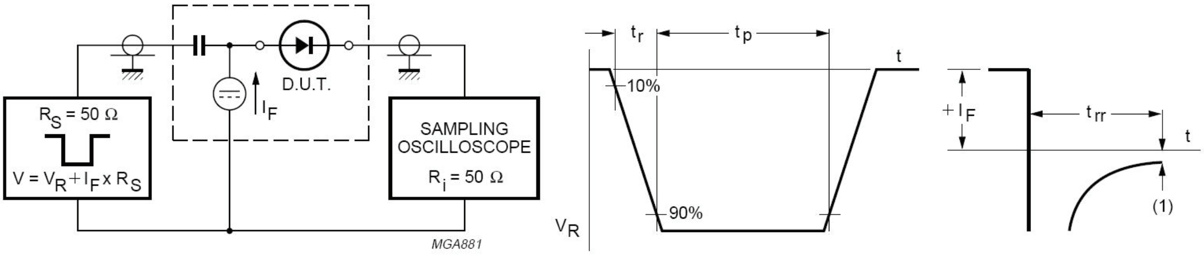






Based on square wave currents.
T_j = 25 °C prior to surge.

测试电路和波形 / Test circuit and waveforms.

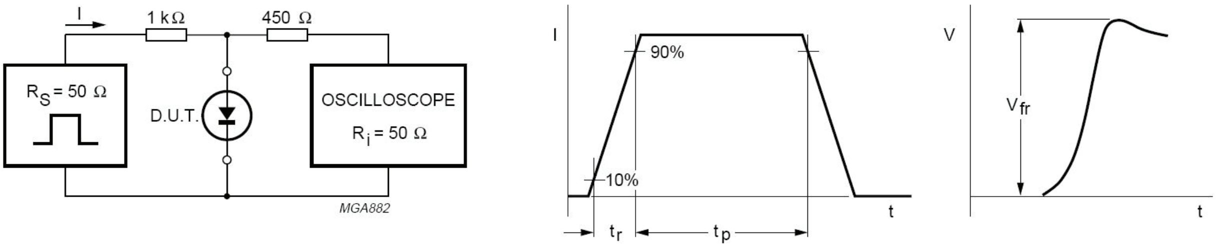


input signal

output signal

(1) I_R = 1 mA.

Input signal: reverse pulse rise time t_r = 0.6 ns; reverse voltage pulse duration t_p = 100 ns; duty factor δ = 0.05;
Oscilloscope: rise time t_r = 0.35 ns.

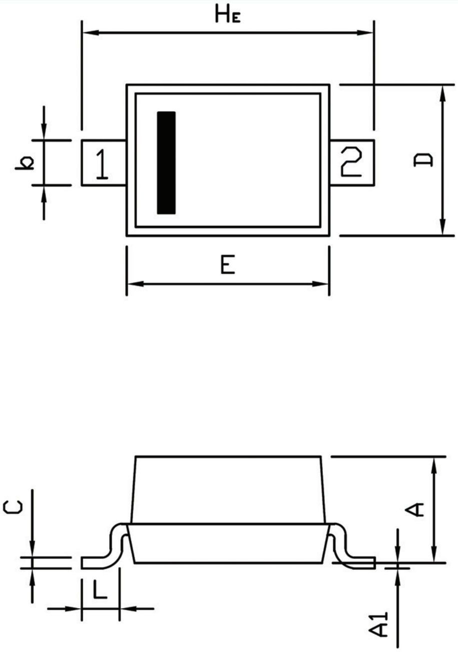


input signal

output signal

Input signal: forward pulse rise time t_r = 20 ns; forward current pulse duration t_p ≥ 100 ns; duty factor δ ≤ 0.005.

外形尺寸图 / Package Dimensions



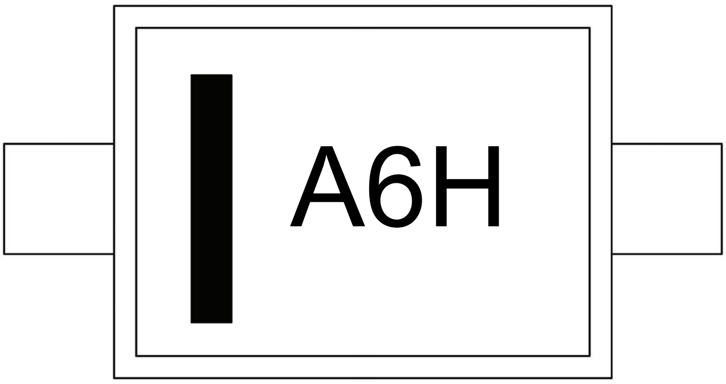
Unit: mm

尺寸 符号	SOD-323	
	min	max
A	0.90	1.10
A1	0.00	0.10
b	0.25	0.40
C	0.089	0.177
D	1.15	1.35
E	1.60	1.80
H_E	2.30	2.70
L	0.20	0.40

PIN: 1.CATHODE 2.ANODE

SOD-323

印章说明 / Marking Instructions



说明：

A6： 为型号代码

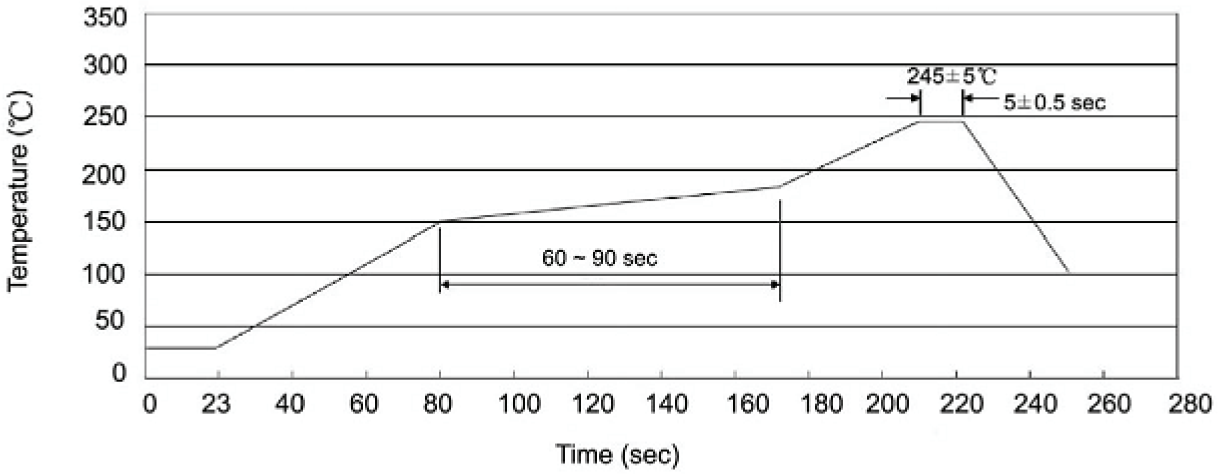
H: 为公司代码

Note:

A6: Product Type Code

H： Company Code

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-323	3,000	10	30,000	8	240,000	7″ ×8	180×120×180	385×257×392

使用说明 / Notices