



**描述 / Descriptions**

SOD-323  
Silicon Diode in a SOD-323 Plastic Package.

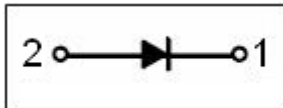
**特征 / Features**

AEC-Q101  
Small signal diode, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

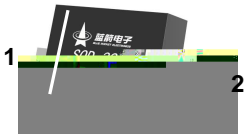
**用途 / Applications**

Switching diodes, Meet the stringent requirements of automotive applications.

**内部等效电路 / Equivalent Circuit**



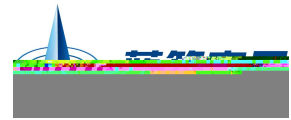
**引脚排列 / Pinning**



PIN1:Cathode      PIN2:Anode

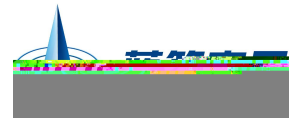
**印章代码 / Marking**

Marking	A6Q
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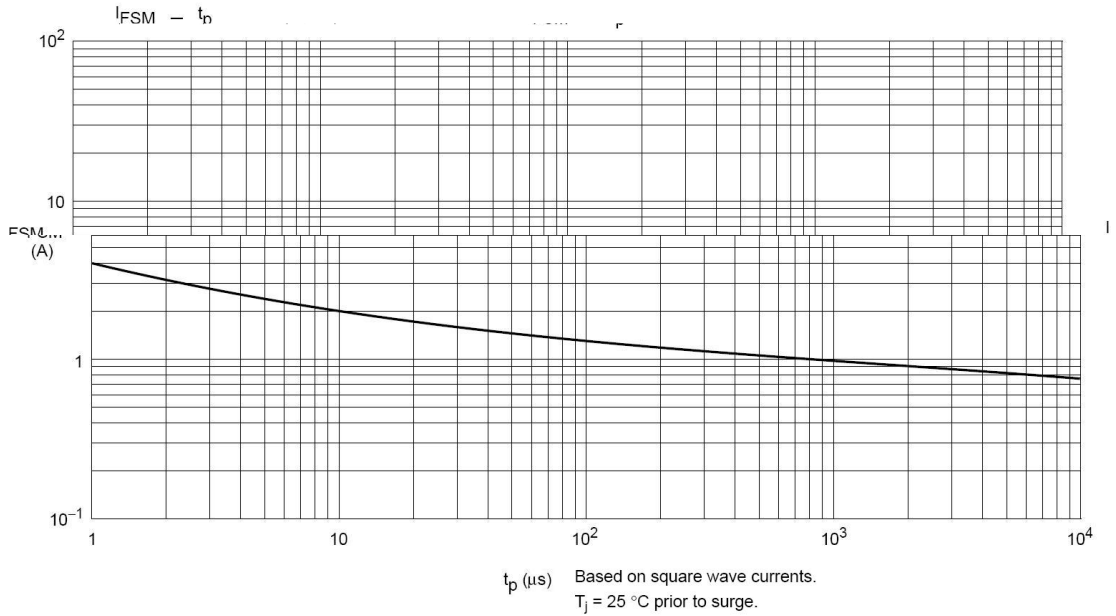
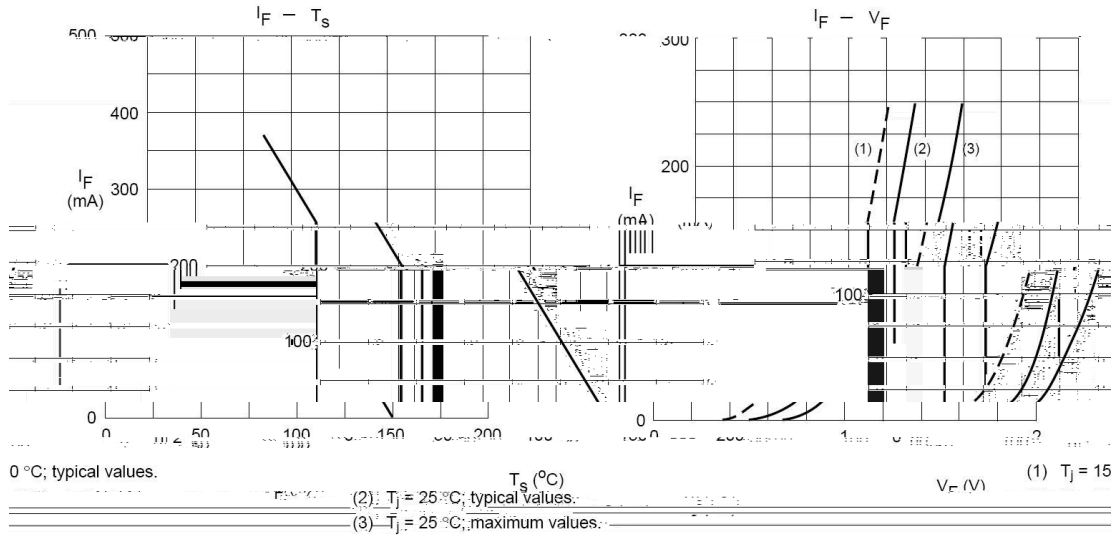


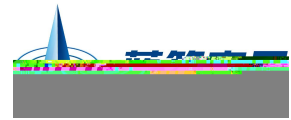
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Repetitive peak reverse voltage	$V_{RRM}$	85	V
Continuous forward current	$I_{F(AV)}$ ( $T_s=90^\circ\text{C}$ )	250	mA
Non-repetitive peak forward current	$I_{FSM(1)(t=1S)}$	0.5	A
	$I_{FSM(2)(t=1mS)}$	1.0	A
Total power dissipation	$P_{tot}$ ( $T_s=90^\circ\text{C}$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

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	$V_F$	$I_F=1\text{mA}$			715	mV
		$I_F=10\text{mA}$			855	mV
		$I_F=50\text{mA}$			1.0	V
		$I_F=150\text{mA}$			1.25	V
Reverse Current	$I_R$	$V_R=25\text{V}$			30	nA
		$V_R=75\text{V}$			1.0	$\mu\text{A}$
		$V_R=25\text{V}$ $T_j=150^\circ\text{C}$			30	$\mu\text{A}$
		$V_R=75\text{V}$ $T_j=150^\circ\text{C}$			50	$\mu\text{A}$
Diode capacitance	$C_d$	$V_R=0$ $f=1.0\text{MHz}$			1.5	pF
Reverse Recovery Time	t					

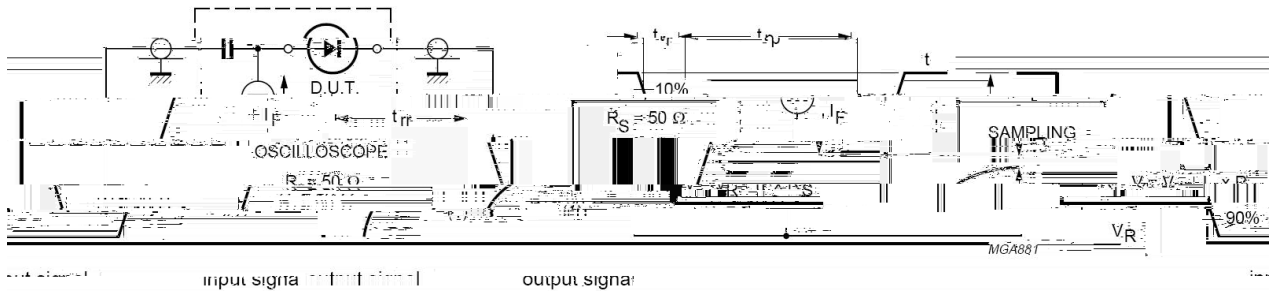


**电参数曲线图 / Electrical Characteristic Curve**





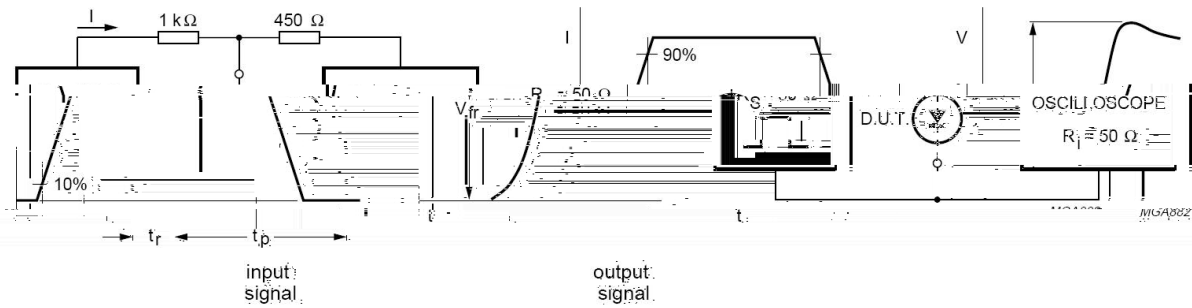
测试电路和波形 / Test circuit and waveforms.



Reverse voltage pulse duration  $t_p = 100 \text{ ns}$ ; duty factor  $\delta = 0.05$ ;  
Reverse current  $I_R = 0.55 \text{ mA}$ .

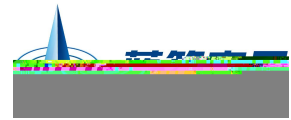
(1)  $I_R = 1 \text{ mA}$ .

Input signal: reverse pulse rise time  $t_r = 0.6 \text{ ns}$ ; reverse pulse width  $t_p = 100 \text{ ns}$ ; duty factor  $\delta = 0.05$ ; Oscilloscope

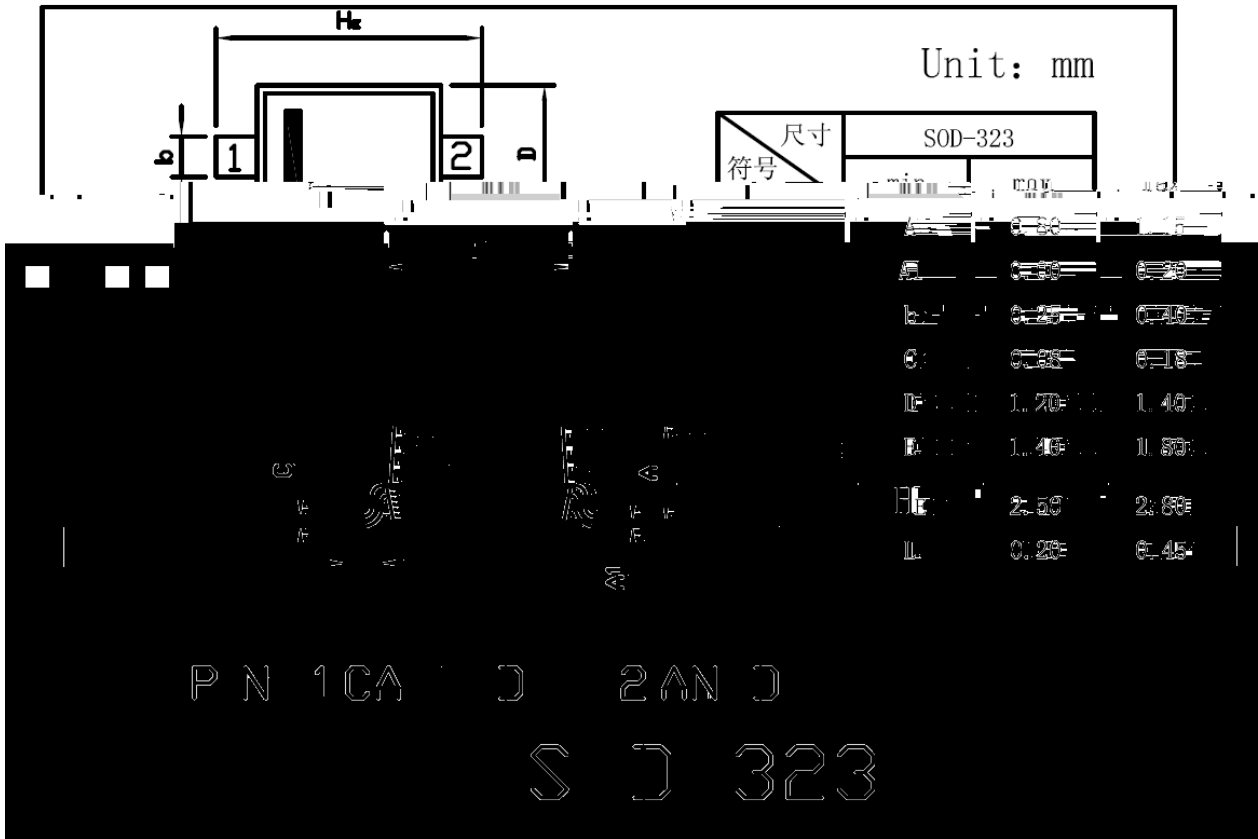


Forward current pulse duration  $t_p \geq 100 \text{ ns}$ ; duty factor  $\delta \leq 0.005$ .

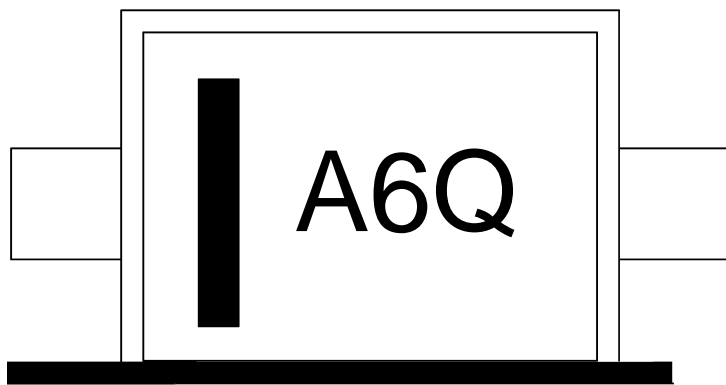
Input signal: forward pulse rise time  $t_r = 20 \text{ ns}$ ; forward pulse width  $t_p = 100 \text{ ns}$ ; duty factor  $\delta = 0.005$ ; Oscilloscope



外形尺寸图 / Package Dimensions



印章说明 / Marking Instructions



说明：

A6： 为型号代码

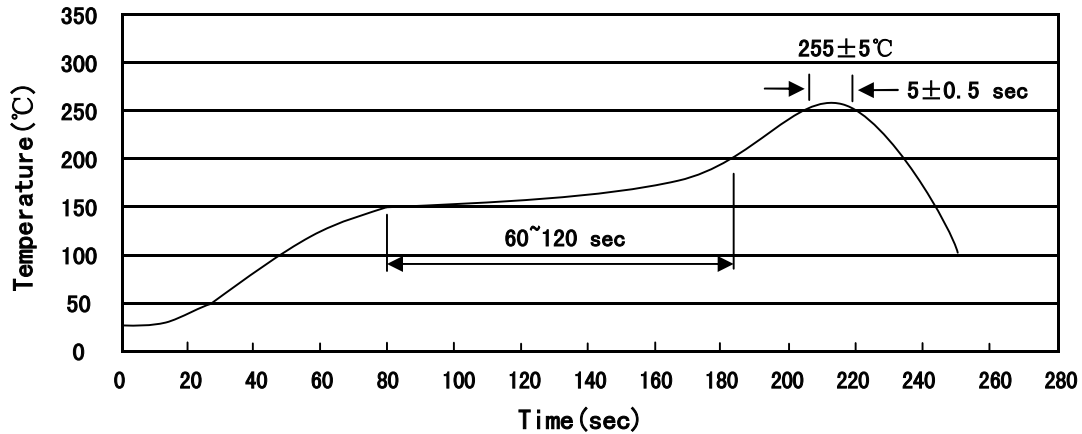
Q： 为汽车无卤产品标识

Note:

A6: Product Type Code

Q: Automobile halogen-free product Code

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



Note:

- 1            150 200            60 120sec;    1.Preheating:150~200 , Time:60~120sec.
- 2            255 5                    5 0.5sec;    2.Peak Temp.:255 5 , Duration:5 0.5sec.
- 3                    2 10 /sec.                    3. Cooling Speed: 2~10 /sec.

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

260 5                    10 1 sec.                    Temp.:260 5                    Time:10 1 sec

**包装规格 / Packaging SPEC.**

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	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	Outer Box
SOD-323	3,000	10	30,000	6	180,000	7" x8	180x120x180	390x385x205

**使用说明 / Notices**