

描述 / Descriptions

SOT-23 塑封封装硅 NPN 数字三极管。Silicon NPN Digital transistor in a SOT-23 Plastic Package.

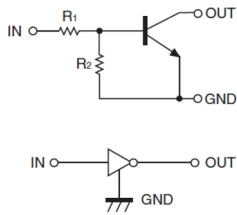
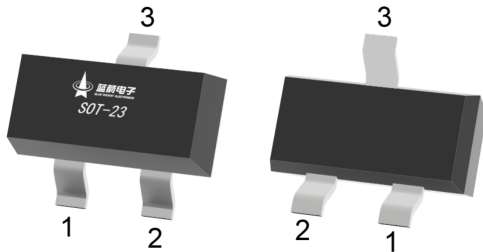
特征 / Features

内装偏置电阻，简化线路设计，减少元件和制造流程，符合 AEC-Q101 标准高可靠性要求，无卤产品。
 With built-in bias resistors, simplify circuit design, reduce a quantity of parts and manufacturing process, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

用于开关、界面电路以及驱动电路中，满足汽车应用的严格要求。

Switching applications, interface circuit and driver circuit applications, Meet the stringent requirements of automotive applications.

内部等效电路 / Equivalent Circuit**引脚排列 / Pinning**

PIN 1 : IN

PIN 2 : GND

PIN 3 : OUT

放大及印章代码 / hFE Classifications & Marking

Marking	Q62
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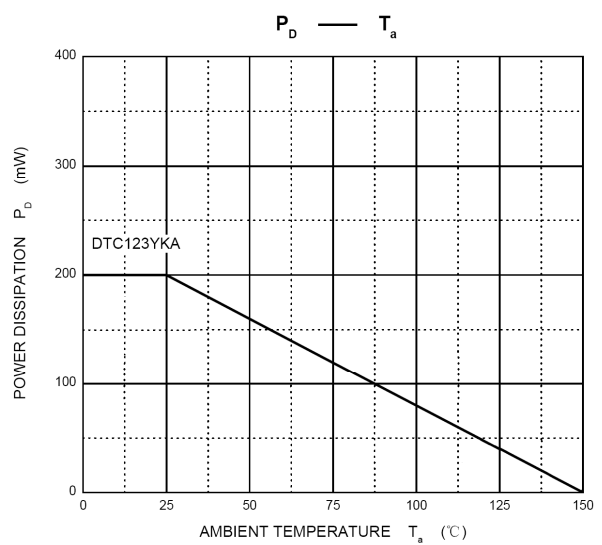
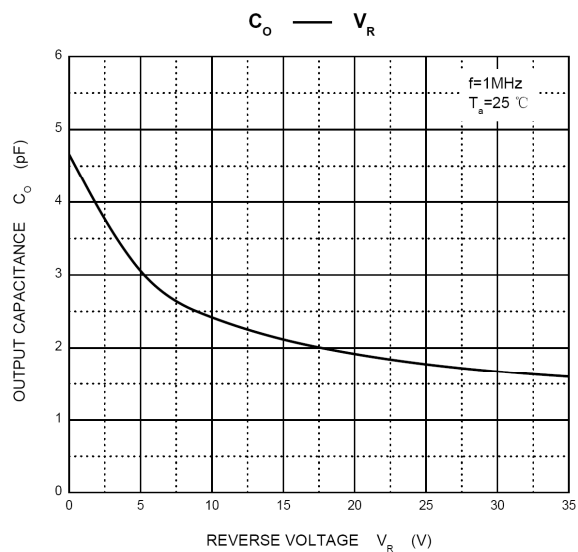
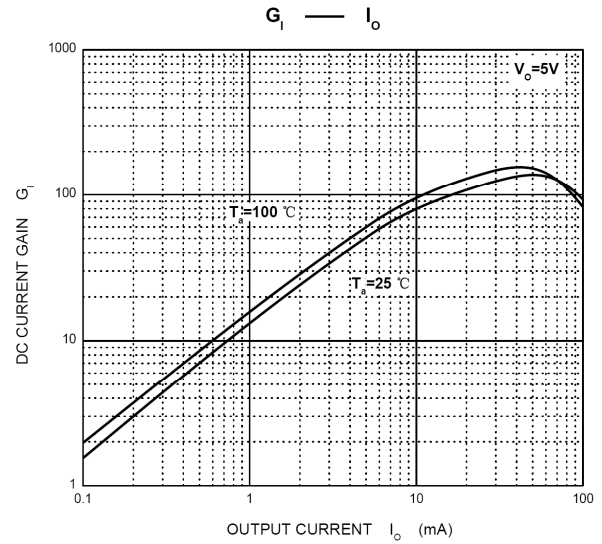
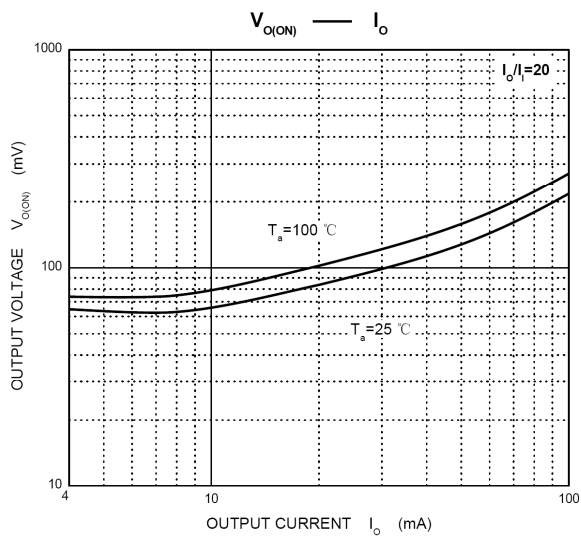
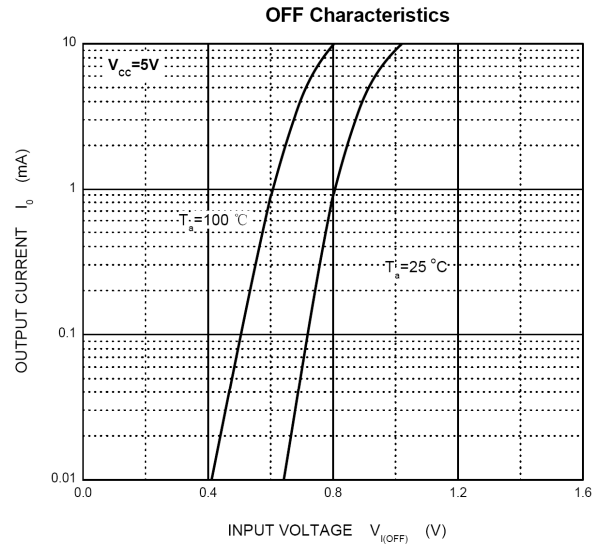
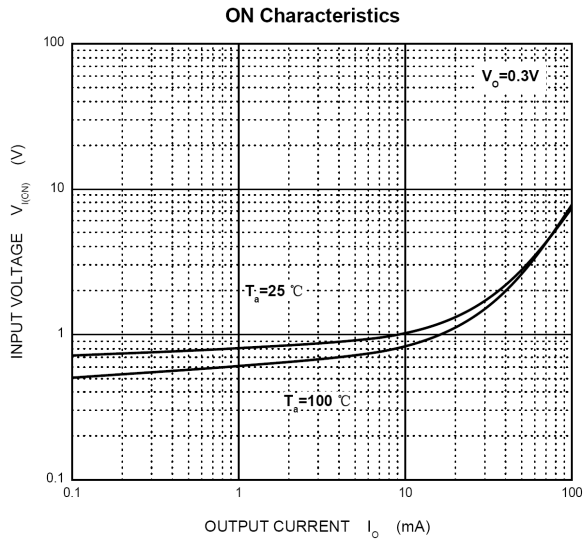
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Supply Voltage	V _{CC}	50	V
Input Voltage	V _{IN}	12	V
		-5	V
Output Current	I _O	100	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _j	-55~150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

电性能参数 / Electrical Characteristics(Ta=25°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
Input Voltage	V _{I(off)}	V _{CC} =5.0V I _O =100μA	0.3			V
Input Voltage	V _{I(on)}	V _O =0.3V I _O =20mA			3	V
Output Voltage	V _{O(on)}	I _O =10mA I _I =0.5mA		0.1	0.3	V
Input Current	I _I	V _I =5.0V			3.8	mA
Output Cut-off Current	I _{O(off)}	V _{CC} =50V V _I =0V			0.5	μA
DC Current Gain	G _I	V _O =5.0V I _O =10mA	33			
Resistance1	R ₁		1.54	2.2	2.86	KΩ
Resistance Ratio	R ₂ /R ₁		3.6	4.5	5.5	
Transition Frequency	f _T	V _O =10V I _O =5.0mA f=100MHz		250		MHz

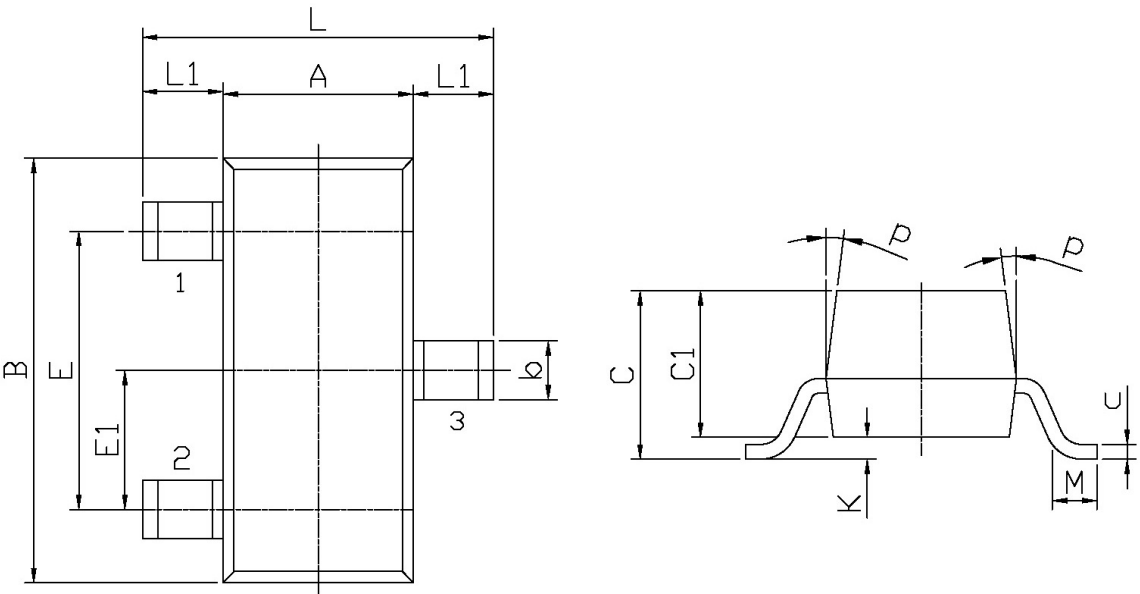
电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

SOT-23

单位：mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.90	1.20
A	1.15	1.50	c	0.05	0.20
B	2.70	3.10	K	0	0.10
E	1.70	2.10	M	0.20MIN	
E1	0.85	1.05	P	7°	
b	0.35	0.55			



印章说明 / Marking Instructions



说明：

Q： 为汽车无卤产品标识

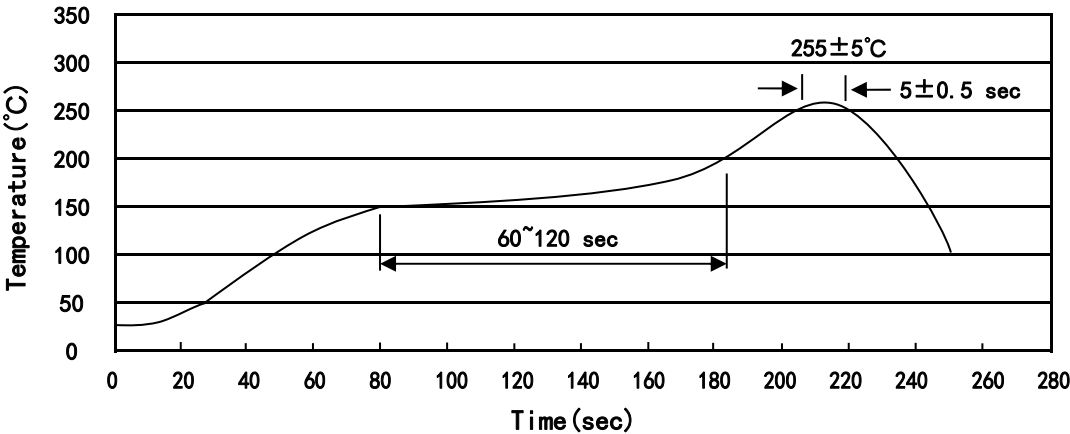
62： 为型号代码

Note:

Q: Automobile halogen-free product Code

62： Product Type 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 150 ~ 200℃，时间 60 ~ 120sec;

1.Preheating:150~200℃, Time:60~120sec.

2、峰值温度 255±5℃，时间持续为 5±0.5sec;

2.Peak Temp.:255±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
SOT-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices