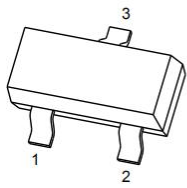
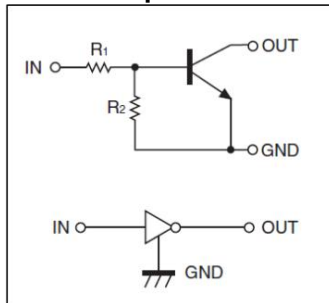


**SOT-23**

Marking: 43



1.IN  
2.GND  
3.OUT

**等效电路Equivalent Circuit****SOT-23 Plastic-Encapsulate Transistors****特征 Features**

- 内置偏置电阻，可配置逆变电路而不连接外部输入电阻(见等效电路) Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit).
- 偏置电阻由完全隔离的置薄膜电阻组成以允许负偏输入 The bias resistors consist of thin-film resistors with complete isolation to allow negative biasing of the input.They also have the advantage of almost completely eliminating parasitic effects.
- 操作时只需设置开关条件，从而使器件设计更加简单 Only the on/off conditions need to be set for operation, making device design easy.

**机械数据 Mechanical Data**

- 封装: SOT-23 封装 SOT-23 Small Outline Plastic Package
- 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°C 除非另有规定)

**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	数值 Value	单位 Unit
电源电压 Supply Voltage	V <sub>CC</sub>	50	V
输入电压 Input Voltage	V <sub>IN</sub>	-7~+20	V
输出电流 Output Current	I <sub>O</sub>	100	mA
功耗 Power Dissipation	P <sub>D</sub>	200	mW
结温 Junction Temperature	T <sub>j</sub>	150	°C
储存温度 Storage Temperature	T <sub>stg</sub>	-55~+150	°C
结环热阻 Thermal resistance From junction to ambient	R <sub>θJA</sub>	625	°C/W

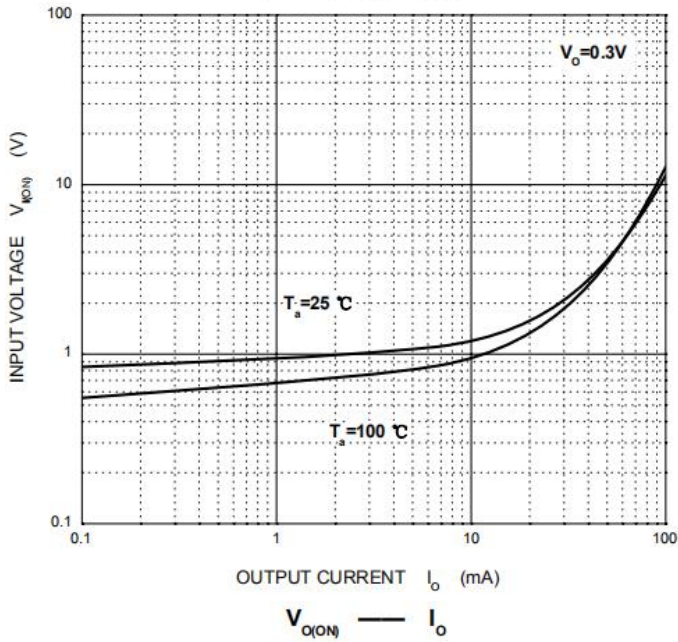
电特性 (TA = 25°C 除非另有规定)

**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

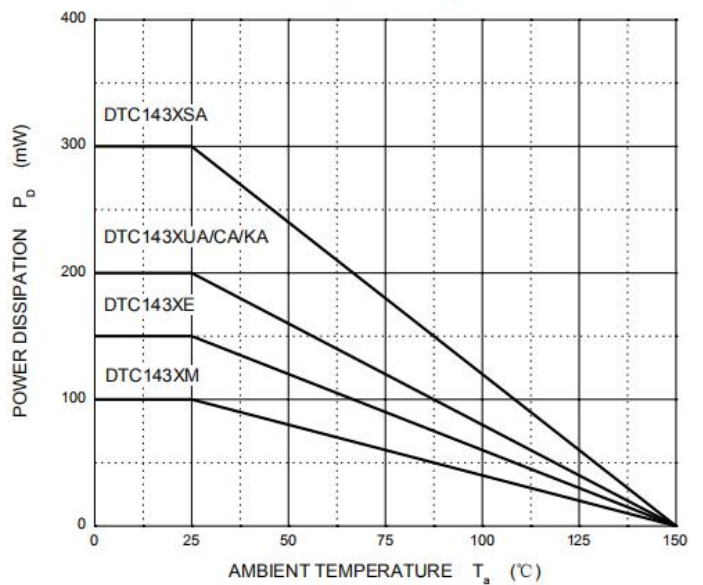
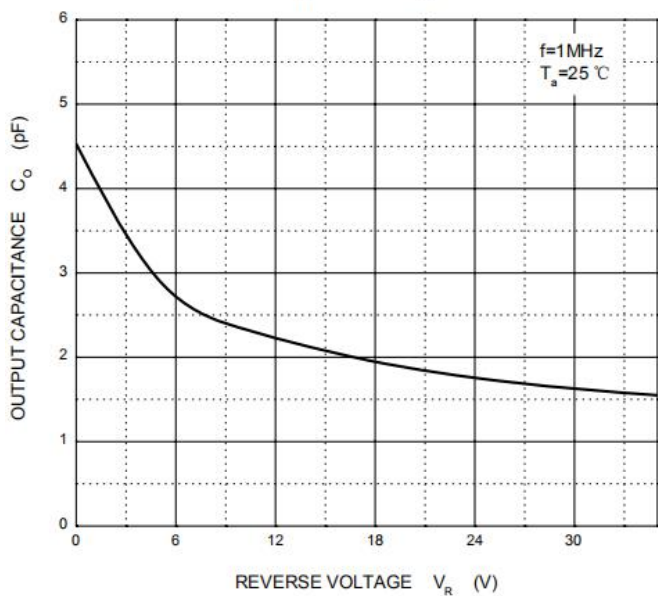
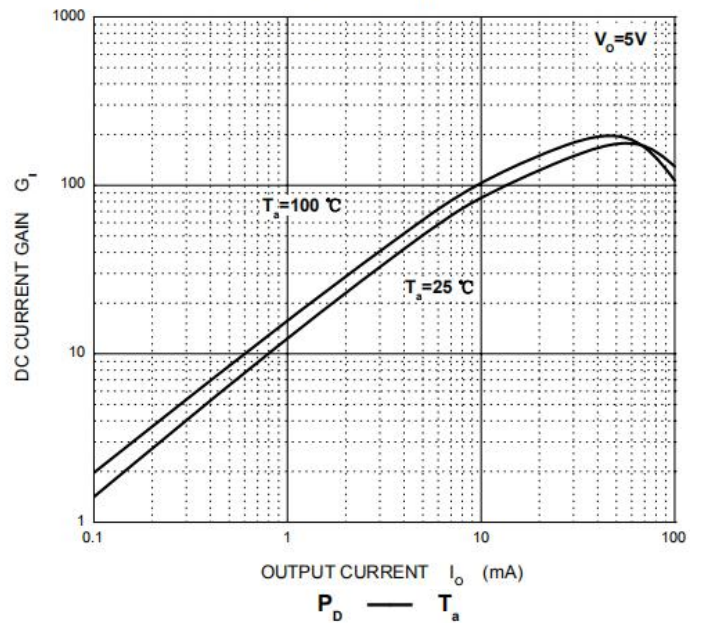
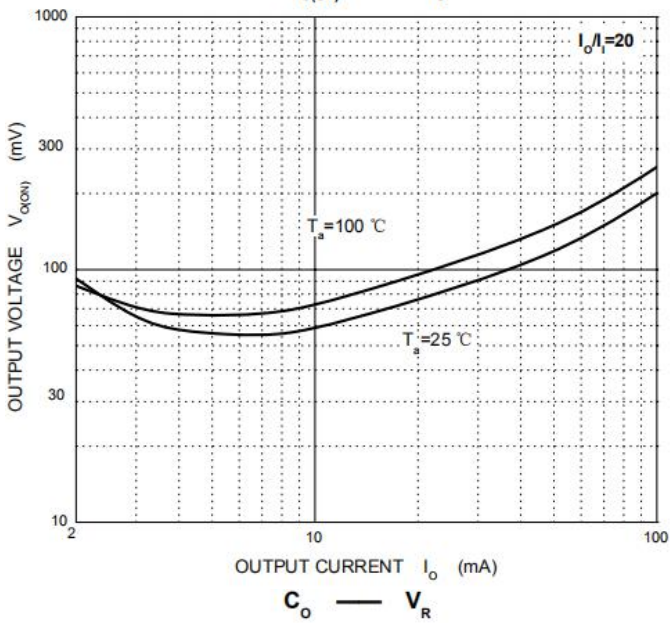
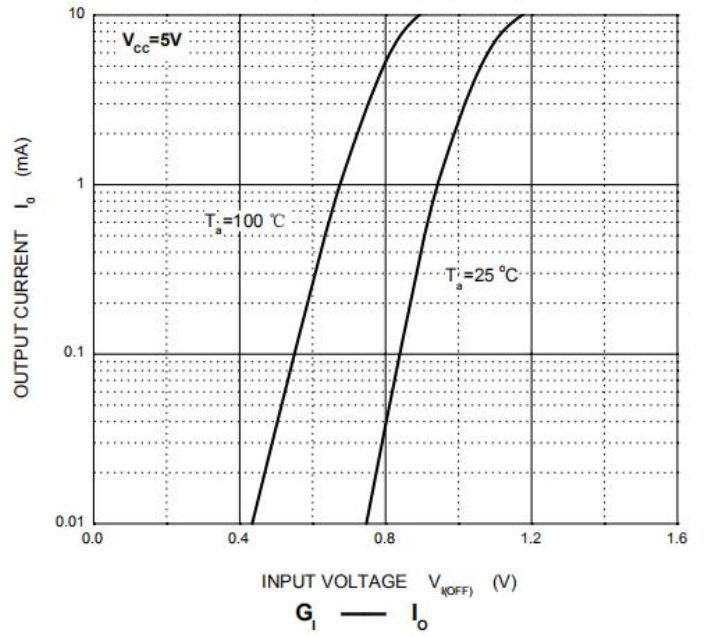
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
输入电压 Input voltage	V <sub>I(off)</sub>	V <sub>CC</sub> =5V, I <sub>O</sub> =100μA	0.3			V
	V <sub>I(on)</sub>	V <sub>O</sub> =0.3V, I <sub>O</sub> =20mA			2.5	V
输出电压 Output voltage	V <sub>O(on)</sub>	I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA		0.1	0.3	V
输入电流 Input current	I <sub>I</sub>	V <sub>I</sub> =5V			1.8	mA
输出电流 Output current	I <sub>O(off)</sub>	V <sub>CC</sub> =50V, V <sub>I</sub> =0			0.5	uA
直流电流增益 DC current gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =10mA	30			
输入电阻 Input resistance	R <sub>1</sub>		3.29	4.7	6.11	kΩ
电阻比 Resistance ratio	R <sub>2</sub> /R <sub>1</sub>		1.7	2.1	2.6	
特征频率 Transition frequency	f <sub>T</sub>	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f=100MHz		250		MHz

Typical characteristics

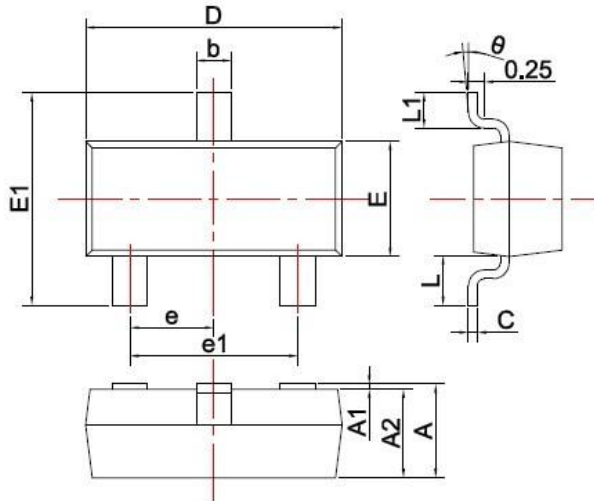
ON Characteristics



OFF Characteristics



SOT-23 PACKAGE OUTLINE Plastic surface mounted package

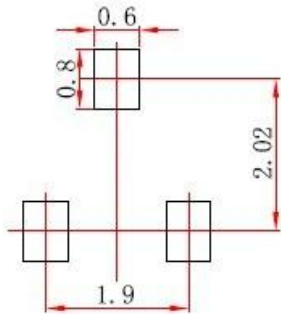


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

焊盘设计参考Precautions: PCB Design

Recommended land dimensions for SOT-23 diode. Electrode patterns for PCBs



Note:

1. Controlling dimension: In millimeters.
2. General tolerance: ± 0.05mm.
3. The pad layout is for reference purposes only.