

描述 / Descriptions

SOT-363 塑封封装 PNP+NPN 半导体三极管。

Silicon PNP and NPN transistor in a SOT-363 Plastic Package.

特征 / Features

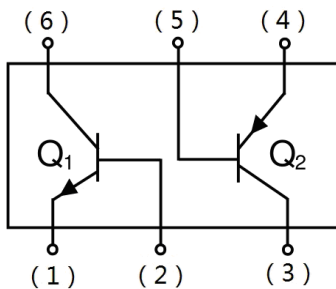
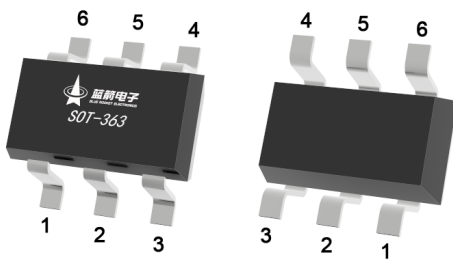
低电流，低电压，小封装，无卤产品。

Low current ,Low voltage ,S-mini package,HF Product.

用途 / Applications

用于普通放大及开关。

General purpose amplifier and switching.

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

PIN 1、4 : Emitter

PIN 2、5 : Base

PIN 3、6 : Collector

放大及印章代码 / hFE Classifications & Marking

见印章说明。 See Marking Instructions.

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

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CB0}	50	V
Collector to Emitter Voltage	V _{CE0}	45	V
Emitter to Base Voltage	V _{EB0}	6.0	V
Collector Current - Continuous	I _c	100	mA
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55 ~ 150	°C

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

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CB0}	-50	V
Collector to Emitter Voltage	V _{CE0}	-45	V
Emitter to Base Voltage	V _{EB0}	-5.0	V
Collector Current - Continuous	I _c	-100	mA
Collector Power Dissipation	P _C	250	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55 ~ 150	°C

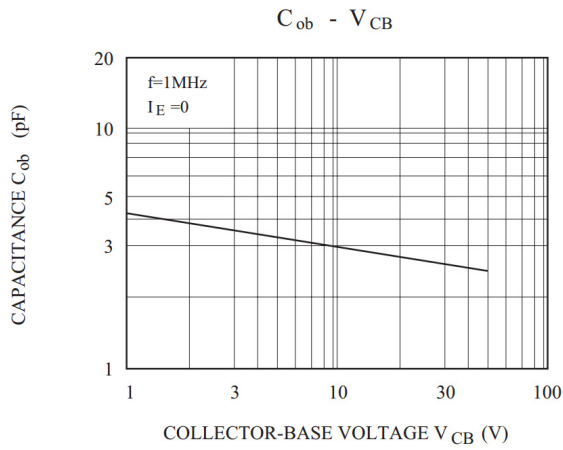
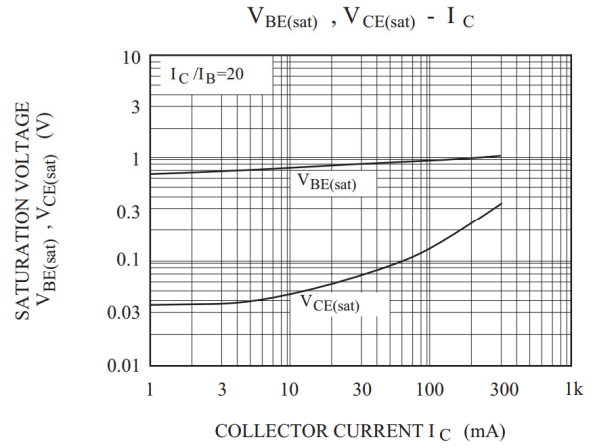
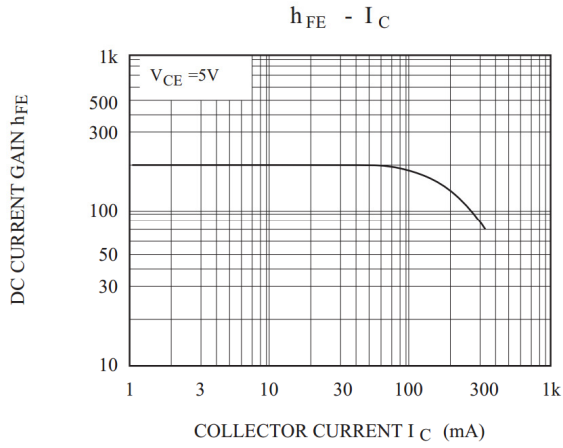
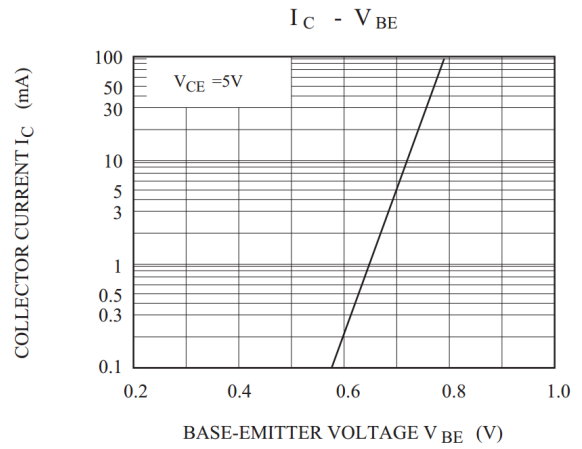
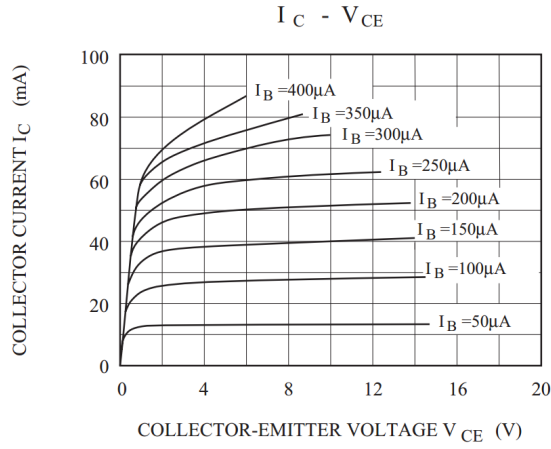
电性能参数 / Electrical Characteristics(Ta=25°C) (NPN)

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
Collector Cut-Off Current	I _{CBO}	V _{CB} =30V I _E =0			15	nA
		V _{CB} =30V I _E =0 T _J =150°C			5	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =6.0V I _C =0			100	nA
DC Current Gain	h _{FE}	V _{CE} =5.0V I _C =2.0mA	200		450	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =10mA I _B =0.5mA			250	mV
		I _C =100mA I _B =5.0mA			600	mV
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =10mA I _B =0.5mA		700		mV
		I _C =100mA I _B =5.0mA		900		mV
Base-emitter voltage	V _{BE}	V _{CE} =5.0V I _C =2.0mA	580		700	mV
		V _{CE} =5.0V I _C =10mA			750	mV
Transition Frequency	f _T	V _{CE} =5.0V I _C =10mA f=100MHz		300		MHz
Collector Capacitance	C _{ob}	V _{CB} =10V f=1.0MHz I _E =I _e =0A		2.5	4.5	pF
Noise figure	NF	V _{CE} =6.0V I _C =0.1mA R _S =10kΩ f=1.0kHz		1.0	10	dB

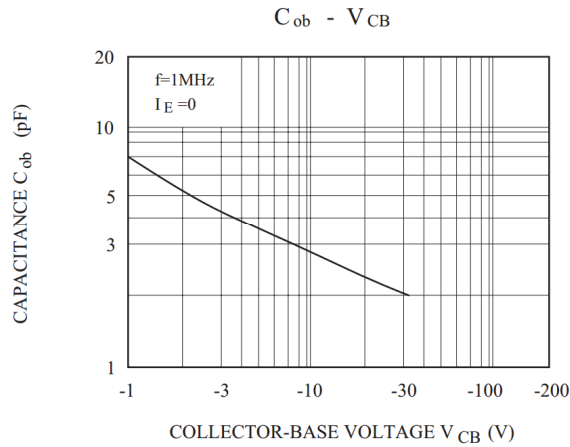
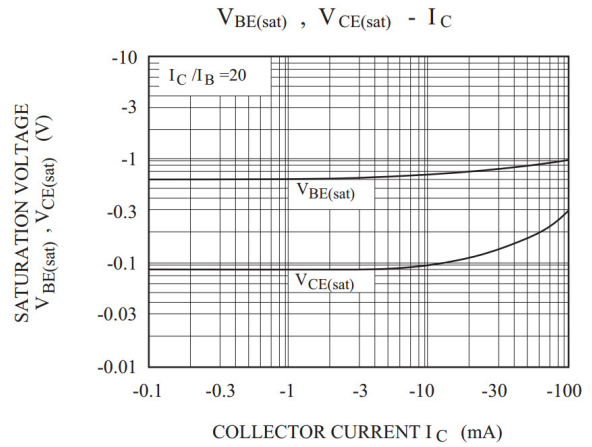
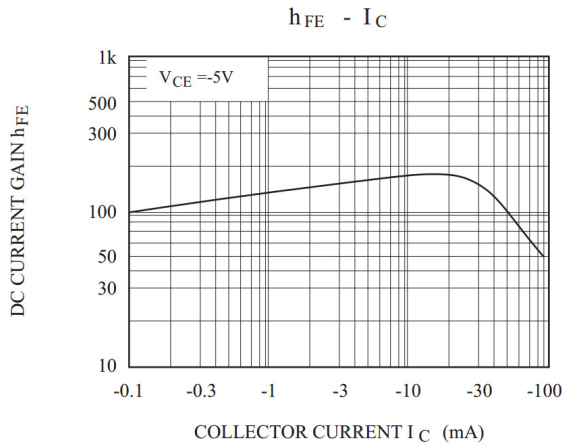
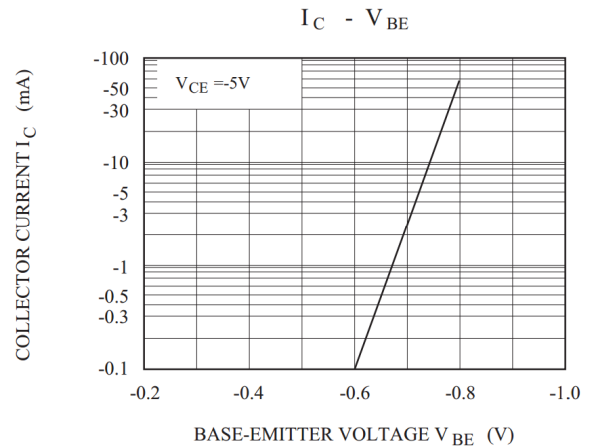
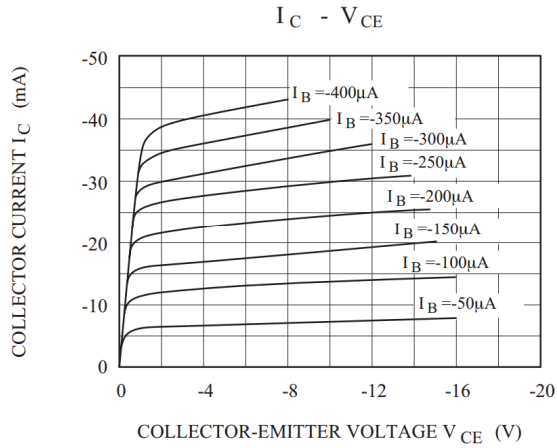
电性能参数 / Electrical Characteristics(Ta=25°C) (PNP)

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
Collector Cut-Off Current	I _{CBO}	V _{CB} =-30V I _E =0			-15	nA
		V _{CB} =-30V I _E =0 T _J =150°C			-5.0	μA
DC Current Gain	h _{FE}	V _{CE} =-5.0V I _C =-2.0mA	200		450	
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-10mA I _B =-0.5mA		-90	-300	mV
		I _C =-100mA I _B =-5.0mA		-250	-650	mV
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-10mA I _B =-0.5mA		-700		mV
		I _C =-100mA I _B =-5.0mA		-900		mV
Base-emitter voltage	V _{BE}	V _{CE} =-5.0V I _C =-2.0mA	-600	-650	-750	mV
		V _{CE} =-5.0V I _C =-10mA			-820	mV
Transition Frequency	f _T	V _{CE} =-5.0V I _C =-10mA f=100MHz		150		MHz
Collector Capacitance	C _{ob}	V _{CB} =-10V f=1.0MHz I _E =I _E =0A		4.5		pF
Noise figure	NF	V _{CE} =-6.0V I _C =-0.1mA R _S =10kΩ f=1.0kHz		2.0	10	dB

电参数曲线图 / Electrical Characteristic Curve (NPN)

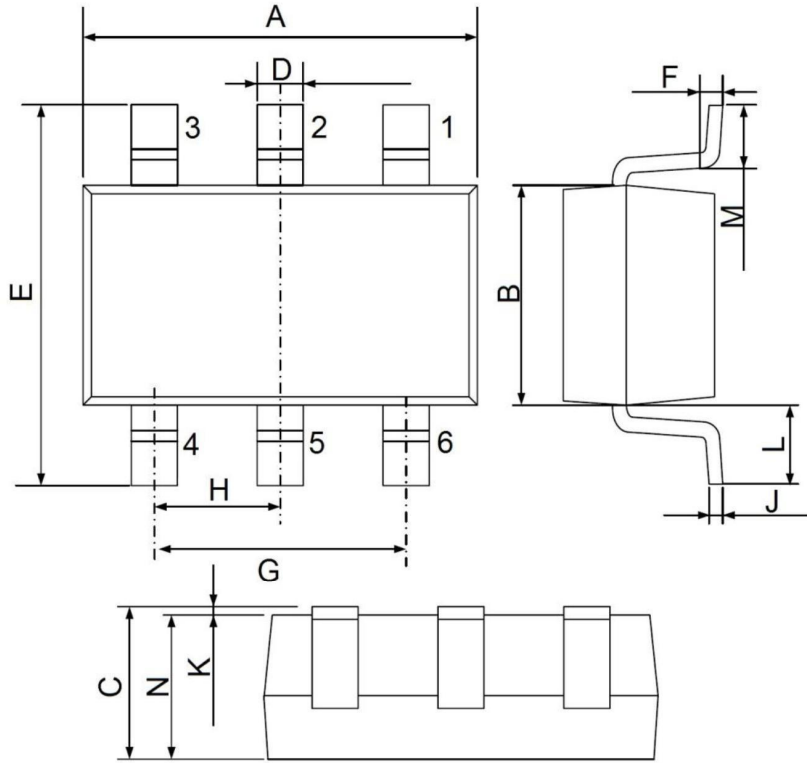


电参数曲线图 / Electrical Characteristic Curve (PNP)



外形尺寸图 / Package Dimensions

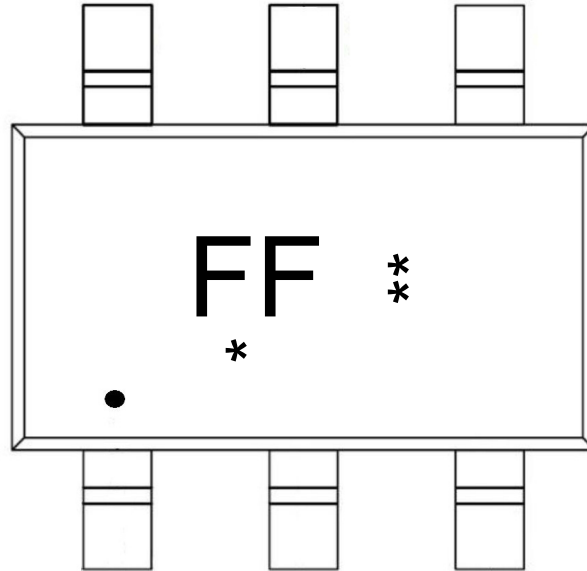
SOT-363-6L



UNIT: mm

DIM	MIN	MAX
A	2.00	2.20
B	1.15	1.35
C	0.90	1.10
D	0.15	0.35
E	1.95	2.25
F	0.20 Typ.	
G	1.20	1.40
H	0.65 Typ.	
J	0.08	0.15
K	0.00	0.10
L	0.525 Ref.	
M	0.26	0.46
N	0.90	1.10

印章说明 / Marking Instructions

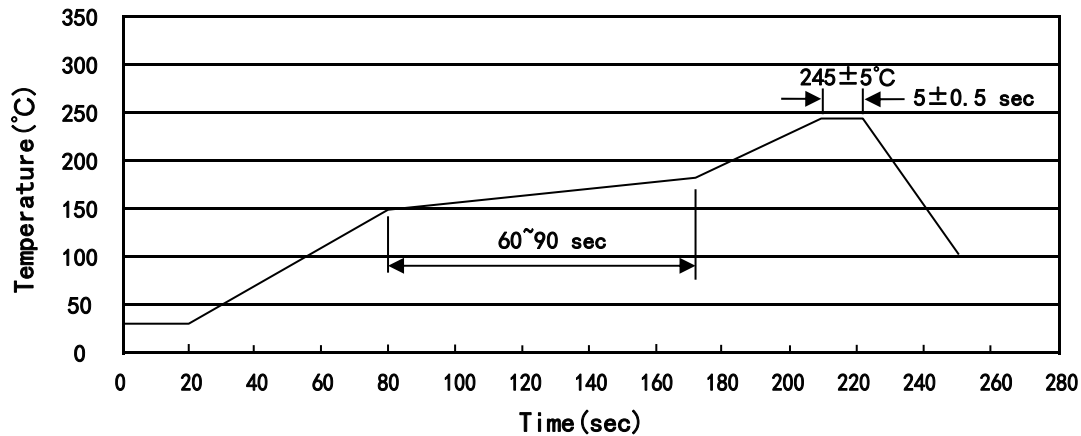


说明：

- ： 为“1”脚
- FF： 为型号代码
- ***： 为生产批号代码，随生产批号变化

Note:

- ： “1” Pin
- FF： Product Type Code
- ***： Lot No. Code, code change with Lot No

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


说明：

- 1、预热温度 150~180°C，时间 60~90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2~10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

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

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

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-363	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

使用说明 / Notices