

描述 / Descriptions

SOT-363 塑封封装双 NPN 半导体三极管。Double silicon NPN transistor in a SOT-363 Plastic Package.

特征 / Features

高电压,与 BRDBC857Q 互补,符合 AEC-Q101 标准高可靠性要求,无卤产品。

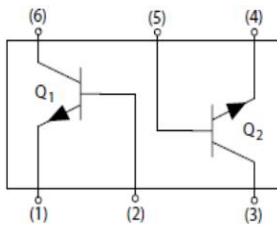
High voltage, complementary pair with BRDBC857Q, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

用途 / Applications

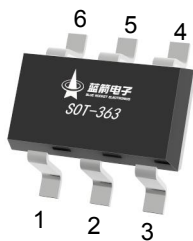
用于普通高压放大,满足汽车应用的严格要求。

General purpose high voltage amplifier, Meet the stringent requirements of automotive applications.

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 / h_{FE} Classifications & Marking

See Marking Instructions.

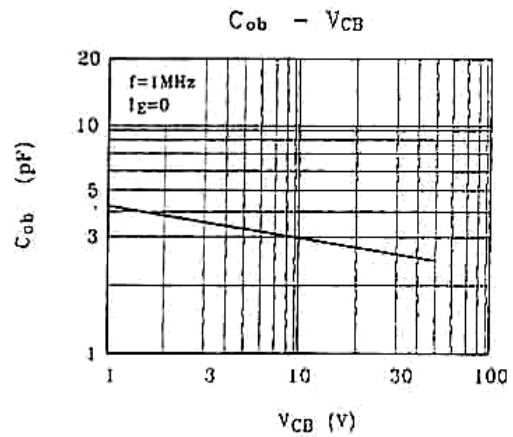
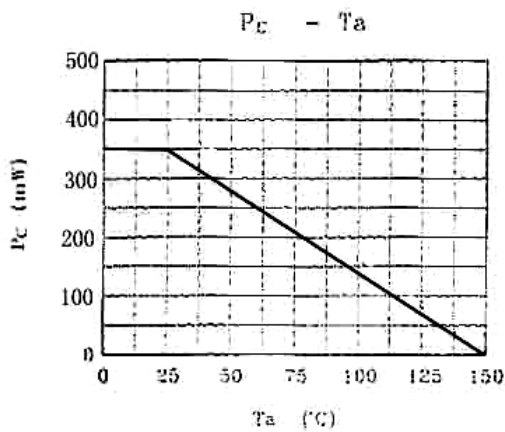
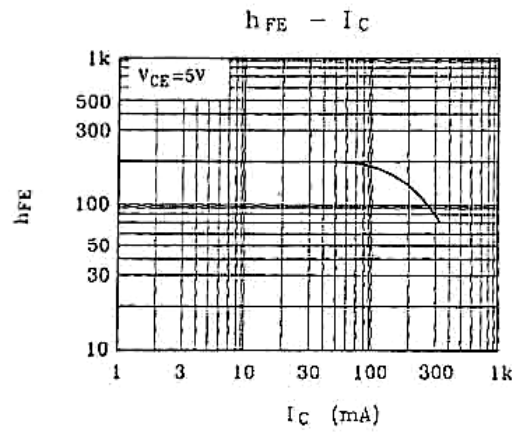
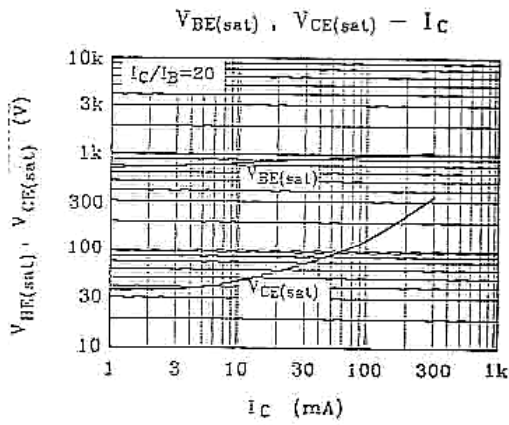
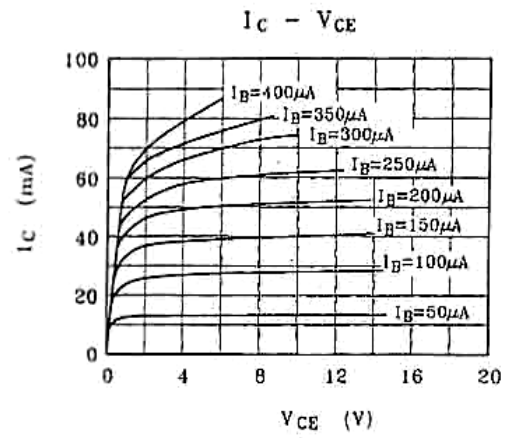
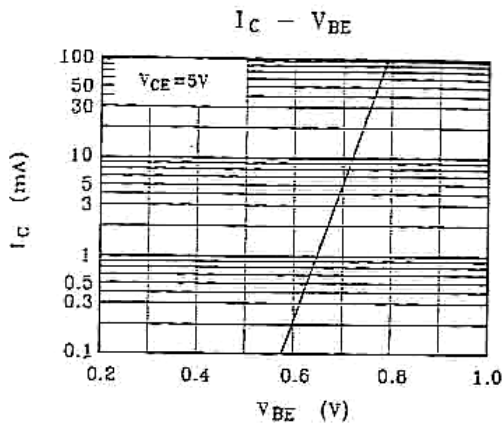
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	50	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	100	mA
Total Package Dissipation	P_D	380	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	328	°C/W
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)

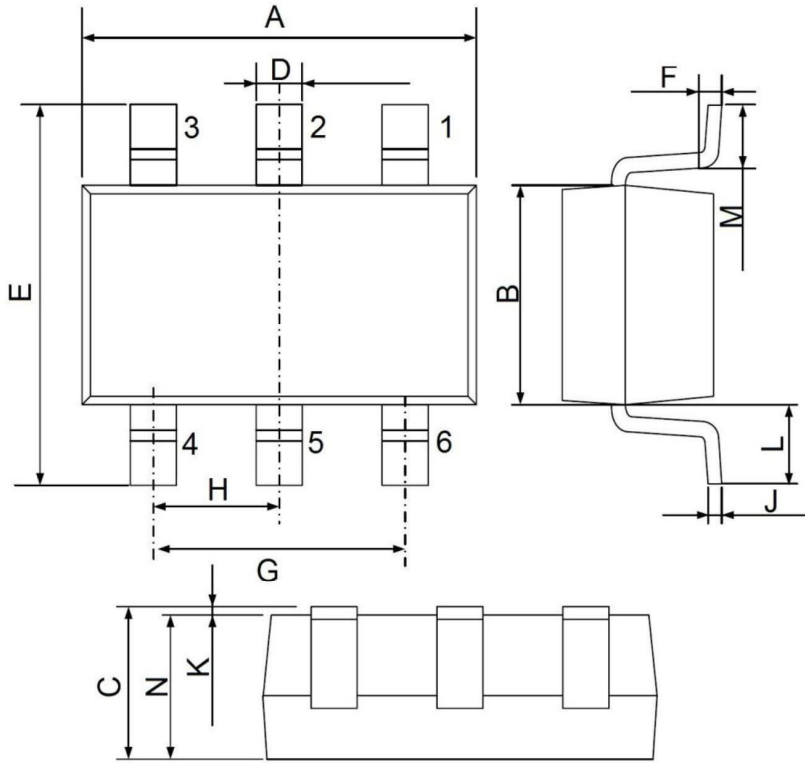
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector-Base Breakdown Voltage	V_{CBO}	$I_C = 10\mu A$ $I_E = 0$	50			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C = 10mA$ $I_B = 0$	45			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E = 10\mu A$ $I_C = 0$	6.0			V
Collector-Emitter Breakdown Voltage	V_{CES}	$I_C = 10\mu A$ $V_{EB} = 0$	50			V
Collector Cut-Off Current	I_{CBO}	$V_{CB} = 30V$ $I_E = 0$			15	nA
		$V_{CB} = 30V$ $I_E = 0$ $T_A = 150^\circ C$			5.0	μA
DC Current Gain	h_{FE}	$V_{CE} = 5.0V$ $I_C = 2.0mA$	200		450	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10mA$ $I_B = 0.5mA$			0.25	V
		$I_C = 100mA$ $I_B = 5.0mA$			0.60	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA$ $I_B = 0.5mA$		0.70		V
		$I_C = 100mA$ $I_B = 5.0mA$		0.90		V
Base-Emitter Voltage	$V_{BE(on)}$	$I_C = 2.0mA$ $V_{CE} = 5.0V$	580	660	700	mV
		$I_C = 10mA$ $V_{CE} = 5.0V$			770	mV
Transition Frequency	f_T	$V_{CE} = 5.0V$ $I_C = 10mA$ $f = 100MHz$	100			MHz
Output Capacitance	C_{ob}	$V_{CB} = 10V$ $f = 1.0MHz$			4.5	pF
Noise Figure	NF	$I_C = 0.2mA$ $V_{CE} = 5.0V$ $R_S = 2.0k\Omega$ $f = 1.0kHz$ $BW = 200Hz$			10	dB

电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

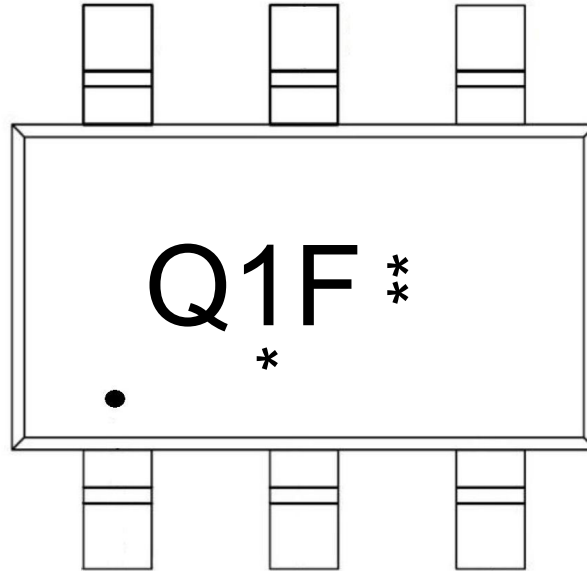
SOT-363-6L



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

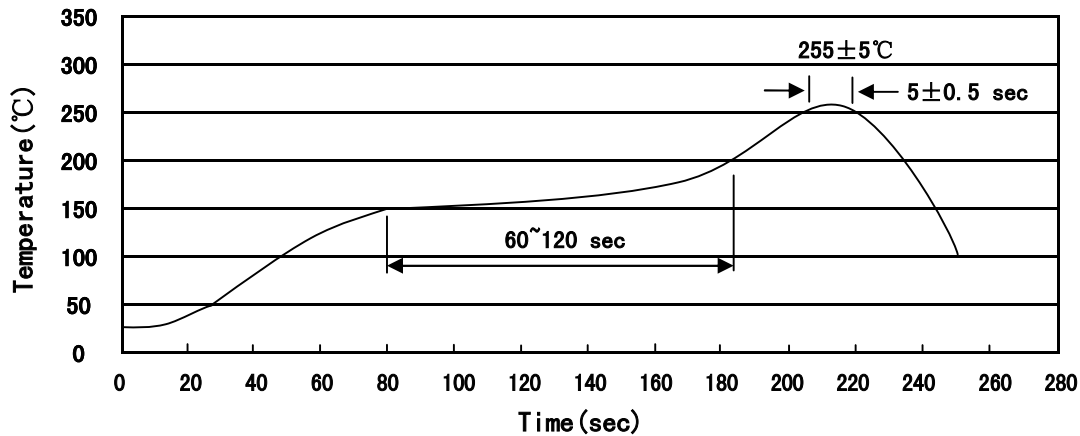


说明：

- ： 为“1”脚
- Q： 为汽车无卤产品标识
- 1F： 为型号代码
- ***： 为生产批号代码，随生产批号变化

Note:

- ： “1” Pin
- Q: Automobile halogen-free product Code
- 1F： 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 150~200°C，时间 60~120sec;
- 2、峰值温度 255±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:150~200°C, Time:60~120sec.
- 2.Peak Temp.:255±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