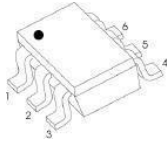
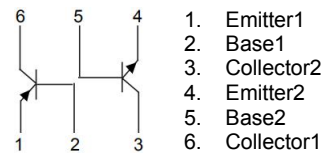


SOT-363



Marking: GL


SOT-363 贴片塑封三极管
SOT-363 Plastic-Encapsulate Transistors

特征 Features

- 5551 和 5401 互补 配对; Complementary Pair(5551 + 5401)
- 最大功率耗散 300mW; Power Dissipation of 200mW
- 高稳定性和可靠性。High Stability and High Reliability

机械数据 Mechanical Data

- 封装: SOT-363 封装SOT-363 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

PNP 极限值和温度特性(TA = 25°C 除非另有规定)

PNP 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
Collector-Base Voltage	V_{CB0}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter -Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_C	-600	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	416	°C/W

PNP 电特性 (TA = 25°C 除非另有规定)

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-150			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -120V, I_E = 0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1V, I_C = -1mA$	50			
	$h_{FE(2)}$	$V_{CE} = -1V, I_C = -10mA$	60		240	
	$h_{FE(3)}$	$V_{CE} = -1V, I_C = -50mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C = -10mA, I_B = -1mA$			-0.2	V
	$V_{CE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C = -10mA, I_B = -1mA$			-1.0	V
	$V_{BE(sat)2}$	$I_C = -50mA, I_B = -5mA$			-1.0	V

NPN 极限值和温度特性(TA = 25°C 除非另有规定)

NPN 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
sCollector-Base Voltage	V_{CB0}	160	V
Collector-Emitter Voltage	V_{CEO}	140	V
Emitter -Base Voltage	V_{EBO}	6	V
Collector Current-Continuous	I_C	600	mA

Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55-+150	°C
Thermal resistance From junction to ambient	$R_{\theta JA}$	416	°C/W

NPN 电特性 ($T_A = 25^\circ\text{C}$ 除非另有规定)

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	160			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=120\text{V}, I_E=0$			50	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			50	nA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=1\text{mA}$	80			
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=10\text{mA}$	80		250	
	$h_{FE(3)}$	$V_{CE}=5\text{V}, I_C=50\text{mA}$	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=10\text{mA}, I_B=1\text{mA}$			0.15	V
	$V_{CE(sat)2}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.20	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=10\text{mA}, I_B=1\text{mA}$			1.0	V
	$V_{BE(sat)2}$	$I_C=50\text{mA}, I_B=5\text{mA}$			1.0	V

典型特性曲线 Typical Characteristics Curve

TYPICAL PNP CHARACTERISTICS

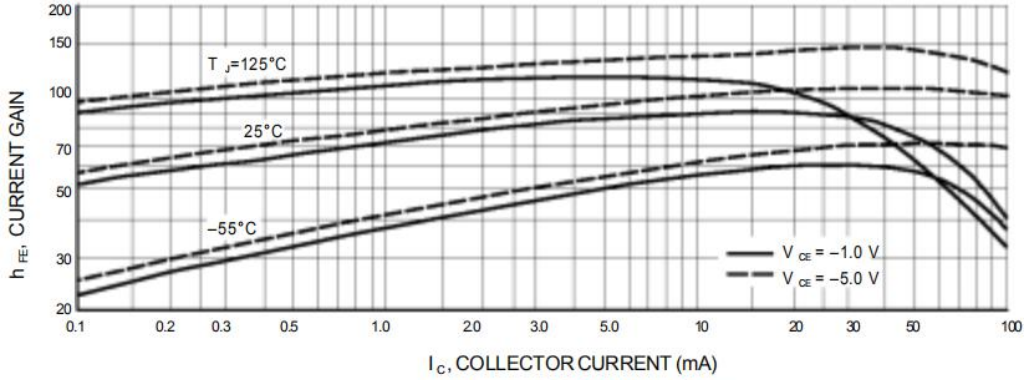


Figure 1. DC Current Gain

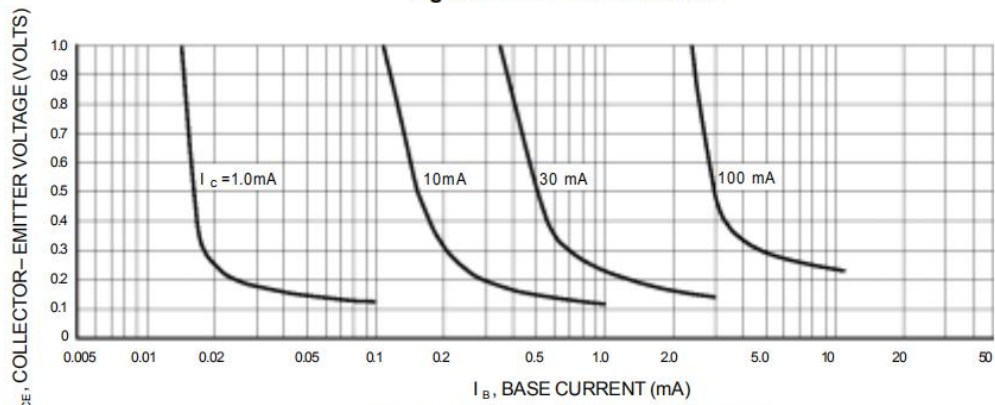


Figure 2. Collector Saturation Region

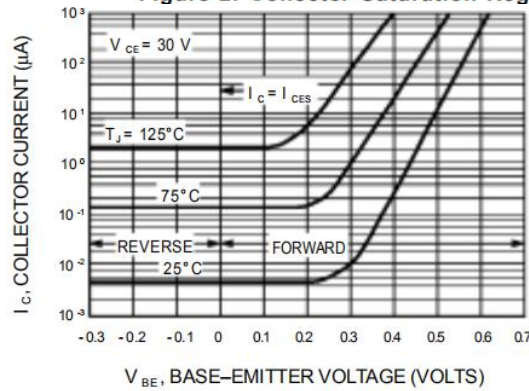


Figure 3. Collector Cut-Off Region

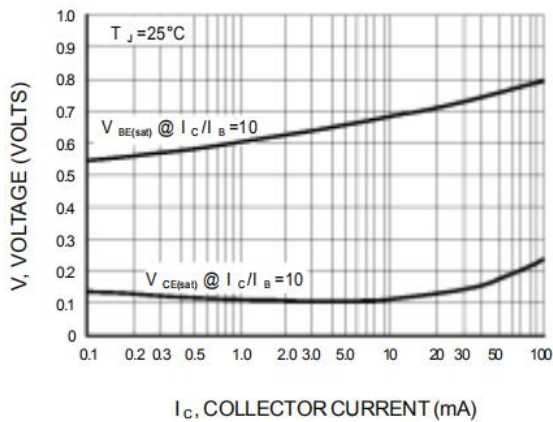


Figure 4. "On" Voltages

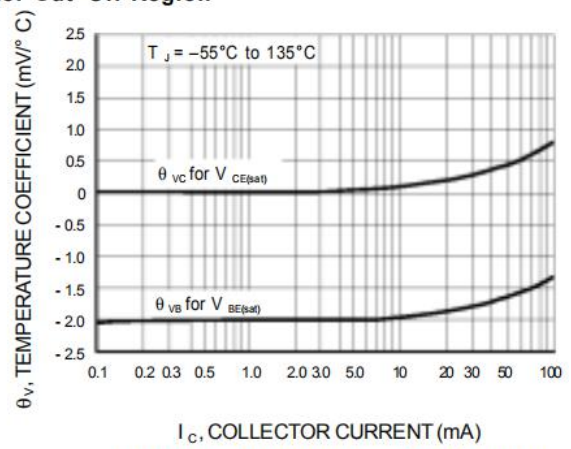


Figure 5. Temperature Coefficients

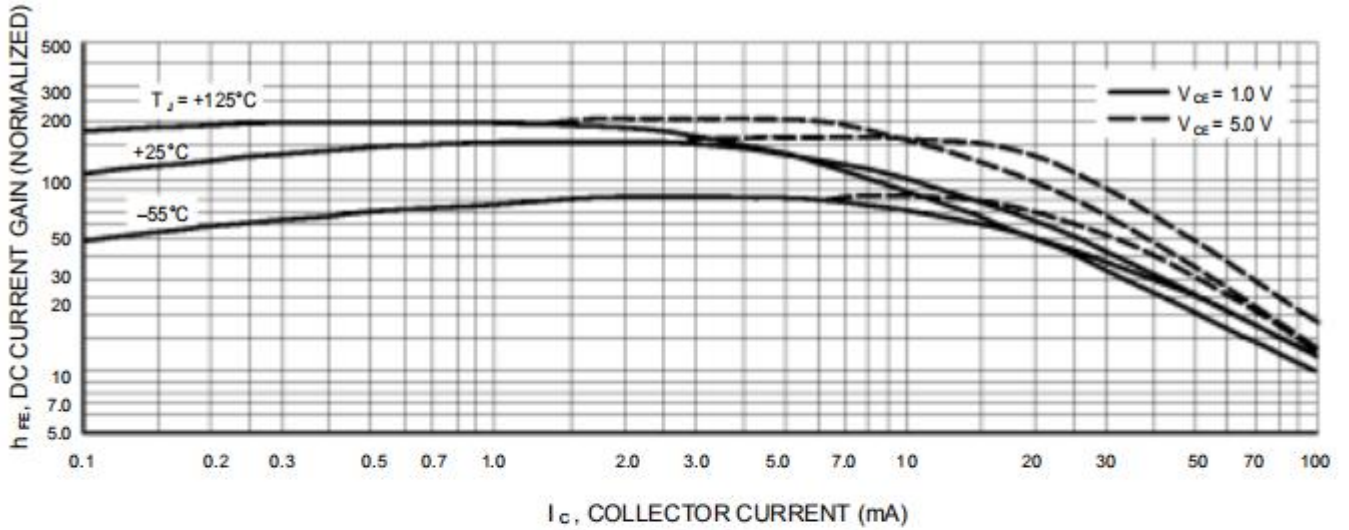


Figure 15. DC Current Gain

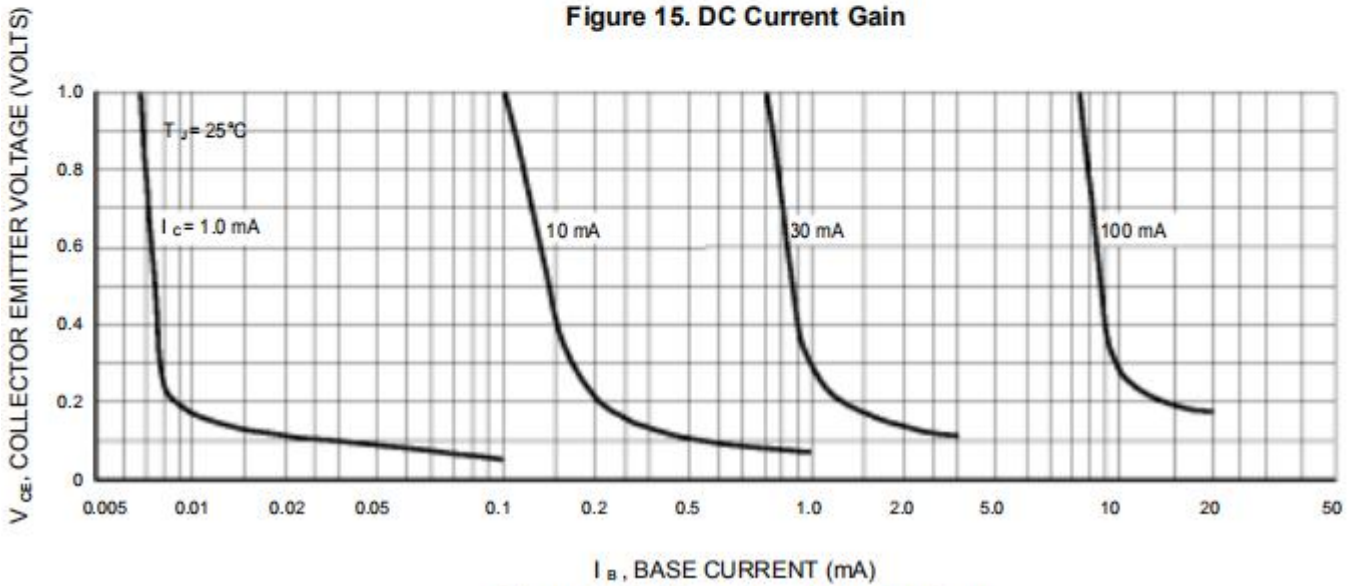


Figure 16. Collector Saturation Region

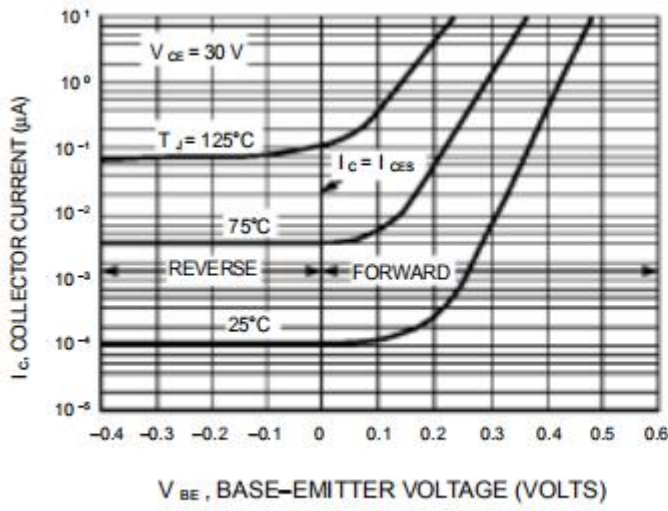


Figure 3. Collector Cut-Off Region

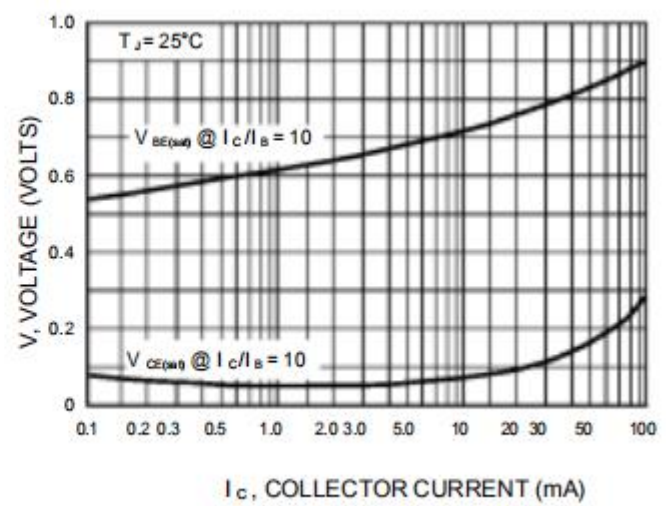


Figure 4. "On" Voltages

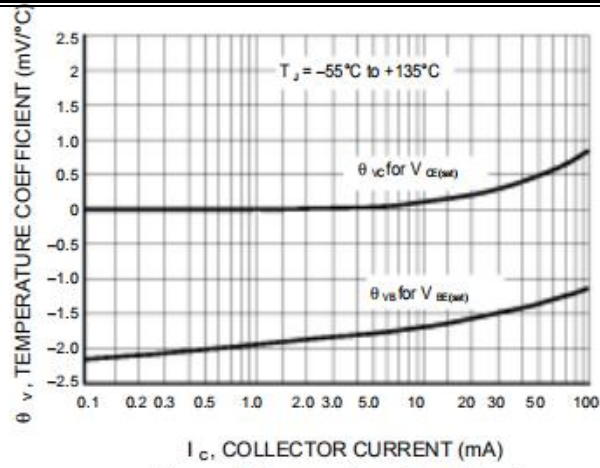
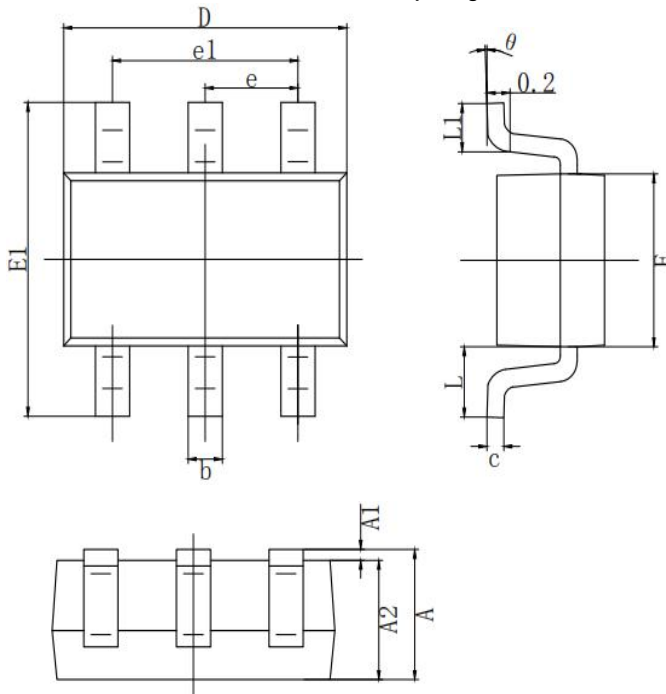


Figure 5. Temperature Coefficients

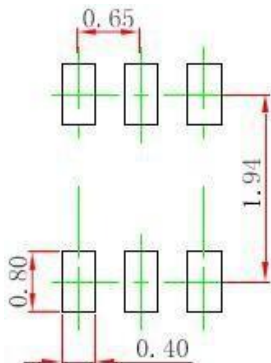
SOT-363 PACKAGE OUTLINE Plastic surface mounted package



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
θ	0°	8°

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-363. Electrode patterns for PCBs



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.