

修订记录 / Revised record

F	2017-4				
G	2020-4-21	2	IEBO ICEO		

描述 / Descriptions

SOT-23

NPN

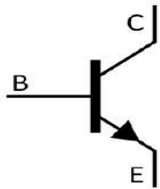
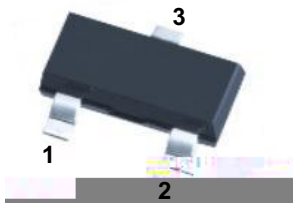
Silicon NPN transistor in a SOT-23 Plastic Package.

特征 / Features

Low current, Low voltage.

用途 / Applications

General power amplifier and switching application.

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

PIN1 Base

PIN 2 Emitter

PIN 3 Collector

放大及印章代码 / h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	110 220	200 450	420 800
Marking	H1J	H1K	H1L

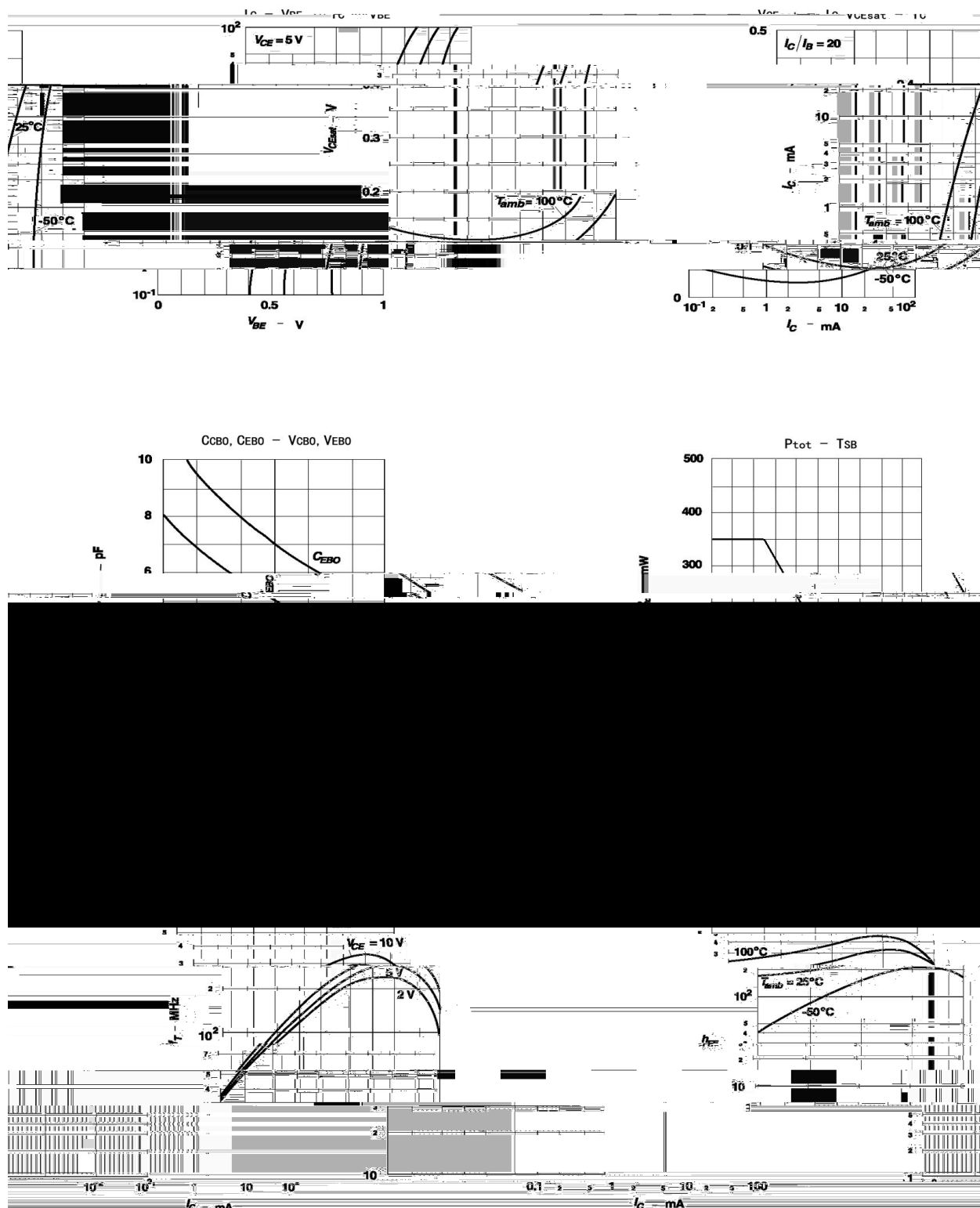
极限参数 / Absolute Maximum Ratings(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	100	mA
Collector Power Dissipation	P_C	350	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)

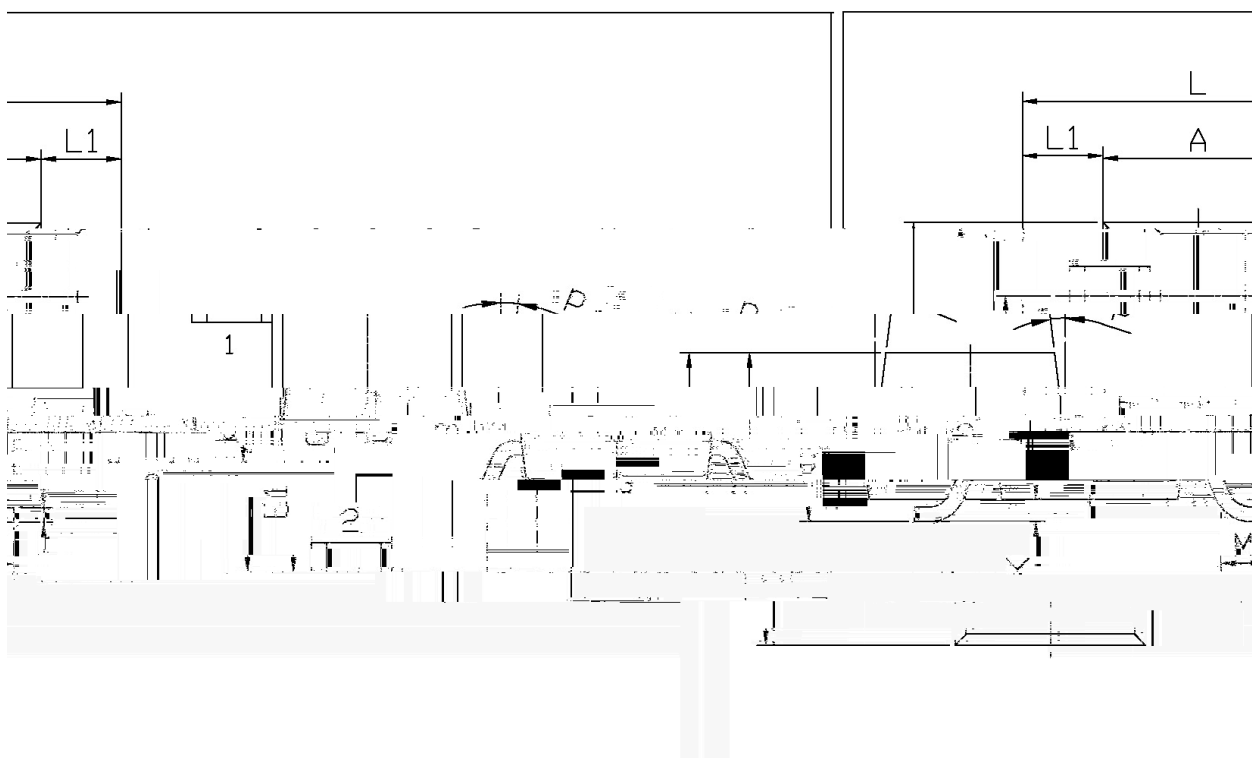
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=30\text{ V}$ $I_E=0$			0.015	μA
Collector Cut-Off Current	I_{CEO}	$V_{CE}=25\text{V}$ $I_B=0$			1	μA
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=5\text{V}$ $I_C=0$			0.05	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0\text{V}$ $I_C=2.0\text{mA}$	110		800	
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=10\text{mA}$ $I_B=0.5\text{mA}$		0.09	0.25	V
	$V_{CE(sat)(2)}$	$I_C=100\text{mA}$ $I_B=5.0\text{mA}$		0.2	0.6	V
Base to Emitter Saturation Voltage	$V_{BE(sat)(1)}$	$I_C=10\text{mA}$ $I_B=0.5\text{mA}$		0.7		V
	$V_{BE(sat)(2)}$	$I_C=100\text{mA}$ $I_B=5.0\text{mA}$		0.9		V
Base to Emitter Voltage	$V_{BE(1)}$	$V_{CE}=5.0\text{V}$ $I_C=2.0\text{mA}$	0.58		0.7	V
	$V_{BE(2)}$	$V_{CE}=5.0\text{V}$ $I_C=10\text{mA}$			0.75	V
Transition Frequency	f_T	$V_{CE}=5.0\text{V}$ $I_C=10\text{mA}$ $f=100\text{MHz}$		300		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}$ $I_E=0$ $f=1.0\text{MHz}$		2.5	4.5	pF
Noise Figure	NF	$V_{CE}=6.0\text{V}$ $I_C=0.1\text{mA}$ $R_g=10\text{K}\Omega$ $f=1.0\text{KHz}$		1.0	10	dB

电参数曲线图 / Electrical Characteristic Curve



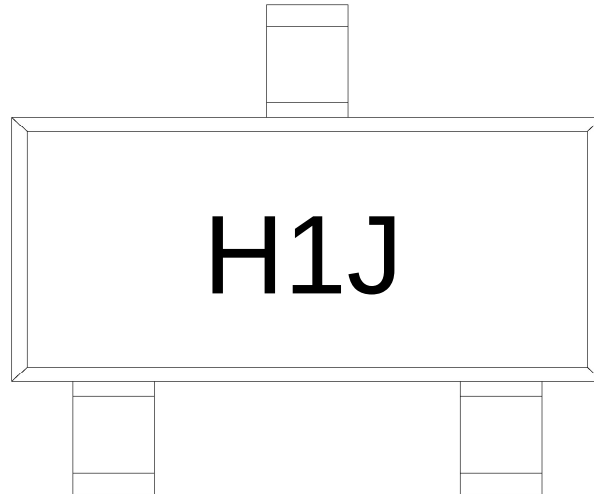
外形尺寸图 / Package Dimensions

BC848 外形尺寸图 / Package Dimensions



Dimensions in millimeters				Dimensions in inches			
Symbol	Min	Max	Symbol	Min	Max	Symbol	Min
L	0.90	1.20	L1	0.45	0.65	A	0.45
B	0.50	0.65	B	0.02	0.20	E	2.70
K	0.10	0.10	K	0.00	0.10	Et	0.85
M	0.20	0.20	M	0.00	0.20	b	0.35
P	0.05	0.05	P	0.00	0.05		
	0.55	0.55		0.02	0.02		

印章说明 / Marking Instructions



H

1J

Note:

H: Company Code

1J: Product Type Code

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

