

BCW66

Rev.F Apr.-2017

描述 / Descriptions

SOT-23 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a SOT-23 Plastic Package.

特征 / Features

与 BCW68 互补。

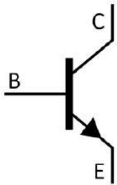
Complementary to BCW68.

用途 / Applications

用于中功率放大。

Medium power amplifier applications.

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	F	G	H
h_{FE} Range	100~250	160~400	250~630
Marking	HDAO	HDAY	HDAG

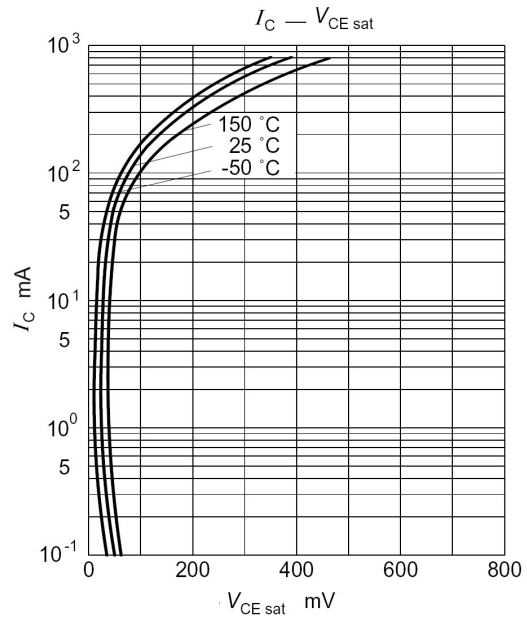
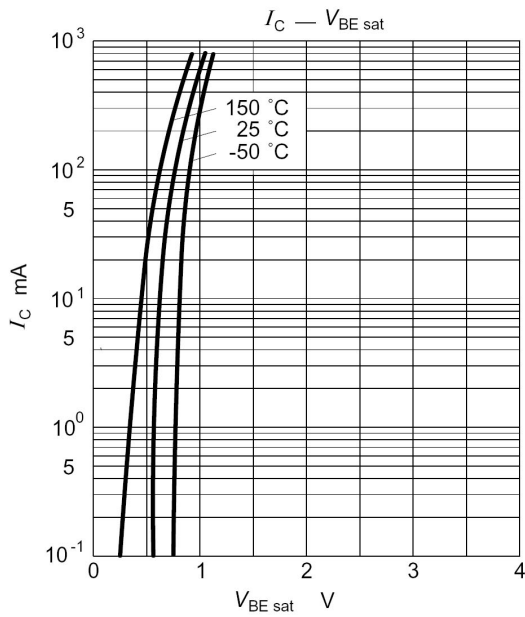
极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	75	V
Collector to Emitter Voltage	V_{CEO}	45	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current(DC)	I_C	800	mA
Peak Collector Current	I_{CM}	1.0	A
Peak Base Current	I_B	100	mA
Collector Power Dissipation	P_C	330	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)

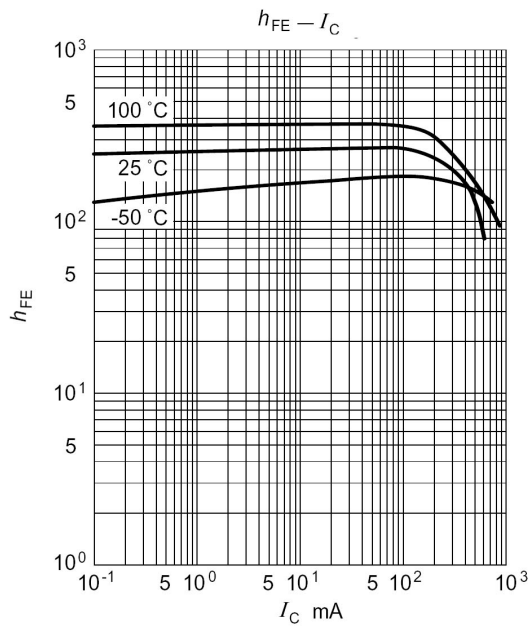
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V_{CBO}	$I_C=10\mu A$	75			V
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_{CEO}=10mA$	45			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_{EBO}=10\mu A$	5.0			V
Collector-Emitter Cut-off Current	I_{CES}	$V_{CB}=45V$			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=4.0V$			0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	100		630	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=10mA$	75			
	$h_{FE(3)}$	$V_{CE}=2.0V$ $I_C=500mA$	35			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=100mA$ $I_B=10mA$			0.3	V
	$V_{CE(sat)(2)}$	$I_C=500mA$ $I_B=50mA$			0.7	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA$ $I_B=50mA$			2.0	V
Transition Frequency	f_T	$V_{CE}=10V$ $I_C=20mA$ $f=100MHz$	100			MHz
Output Capacitance	C_{obo}	$V_{CB}=10V$ $f=1.0MHz$		8.0	12	pF
Input Capacitance	C_{ibo}	$V_{EB}=0.5V$ $f=1.0MHz$			80	pF
Noise Figure	NF	$V_{CE}=5.0V$ $I_C=0.2mA$ $R_g=1.0k\Omega$		2.0	10	dB
Turn-On Time	t_{on}	$I_C=10I_{B1}=-10I_{B2}=150mA$ $R_L=150\Omega$			0.1	μs
Turn-Off Time	t_{off}				0.4	μs

电参数曲线图 / Electrical Characteristic Curve



DC current gain $h_{FE} = f(I_C)$

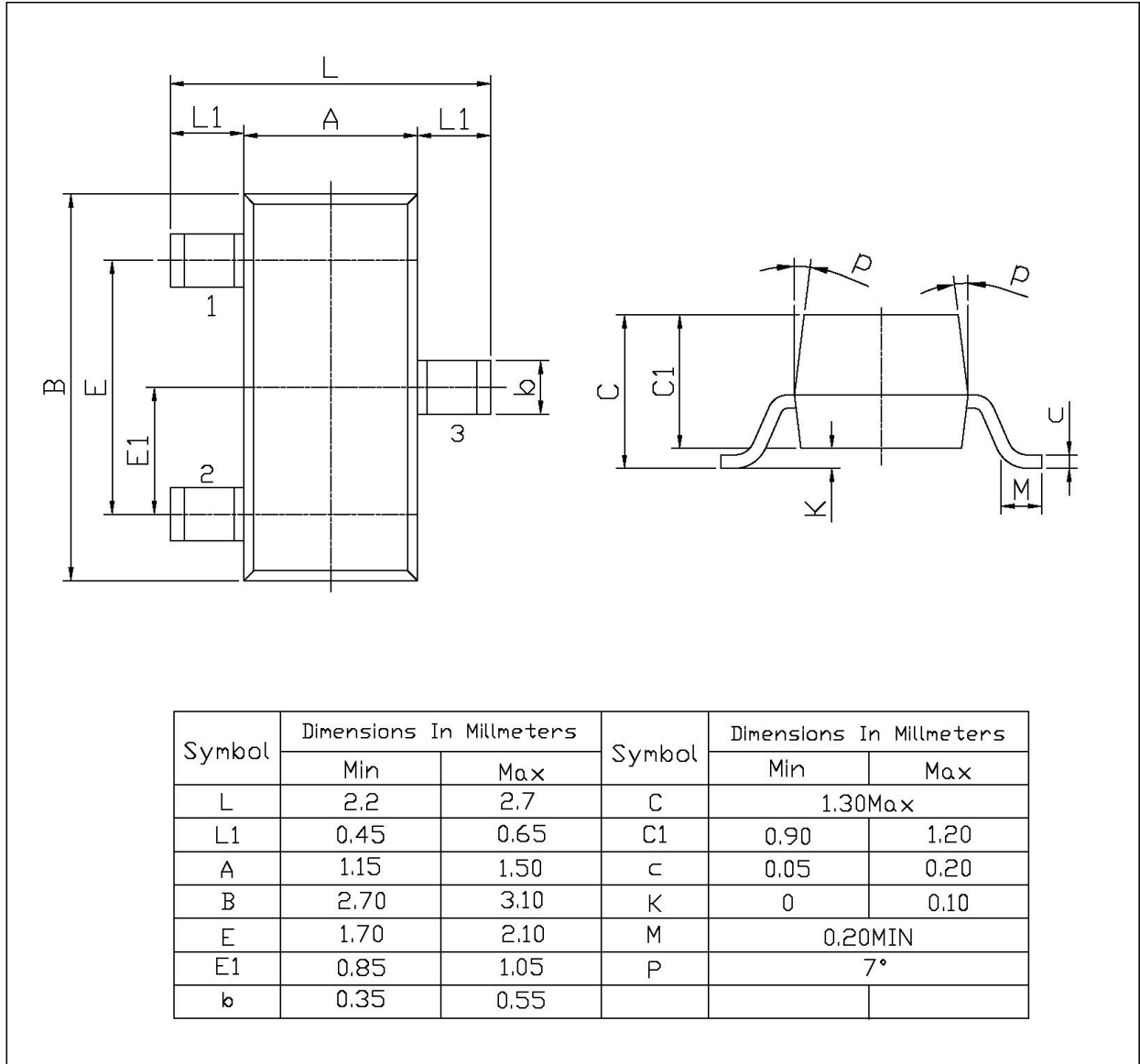
$V_{CE} = 1V$



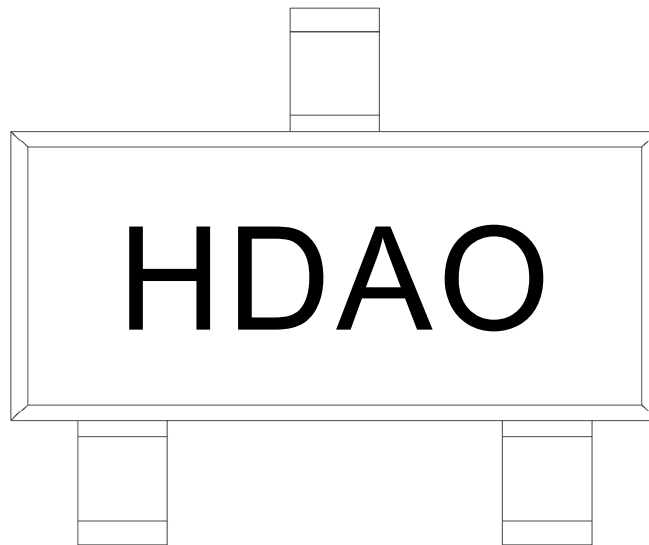
外形尺寸图 / Package Dimensions

SOT-23

单位: mm



印章说明 / Marking Instructions



说明：

H： 为公司代码

DAO： 为型号代码

Note:

H: Company Code

DAO: Product Type Code

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 25~150°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:25~150°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-23	3,000	10	30,000	6	180,000	7" x8	180×120×180	390×385×205

使用说明 / Notices