

/ Descriptions

SOT-23 PNP Silicon PNP transistor in a SOT-23 Plastic Package.

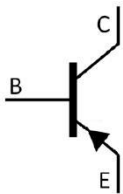
/ Features

h_{FE} , 2SD596
High h_{FE} , complementary pair with 2SD596.

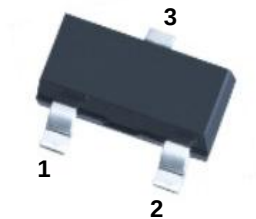
/ Applications

Audio frequency amplifier application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	1	2	3	4	5
h_{FE} Range	110 180	135 220	170 270	200 320	250 400
Marking	HBV1	HBV2	HBV3	HBV4	HBV5

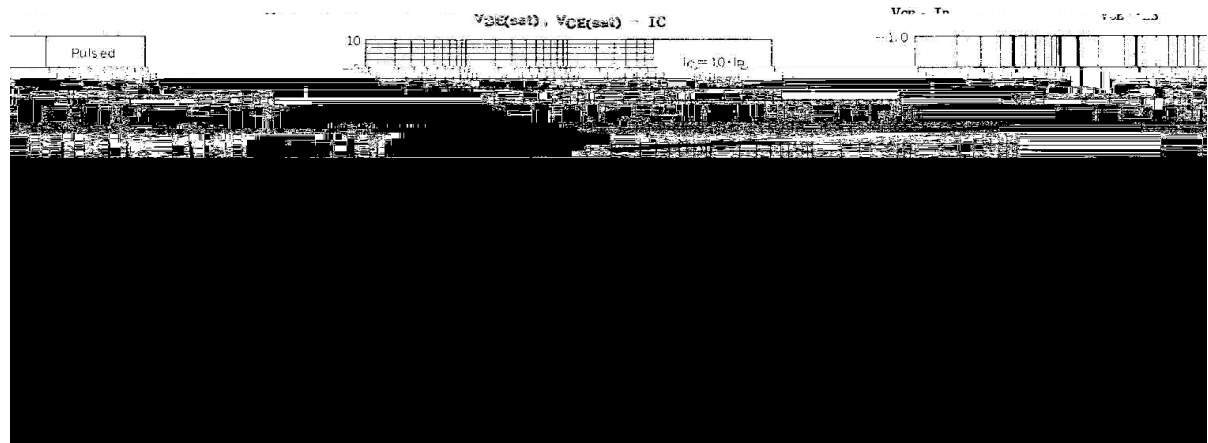
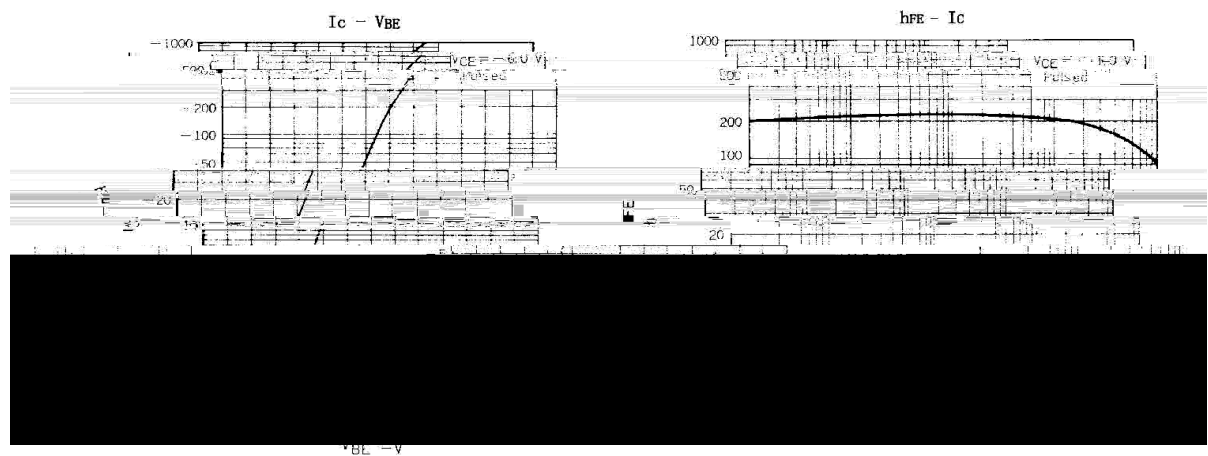
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-30	V
Collector to Emitter Voltage	V_{CEO}	-25	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-700	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-30V$ $I_E=0$			-0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-0.1	μA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-1.0V$ $I_C=-100mA$	110	200	400	
	$h_{FE(2)}$	$V_{CE}=-1.0V$ $I_C=-700mA$	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-700mA$ $I_B=-70mA$		-0.25	-0.6	V
Collector to Base Voltage	V_{BE}	$V_{CE}=-6.0V$ $I_C=-10mA$	-0.6	-0.64	-0.7	V
Transition Frequency	f_T	$V_{CE}=-6.0V$ $I_E=10mA$		160		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-6.0V$ $I_E=0$ $f=10MHz$		17		pF

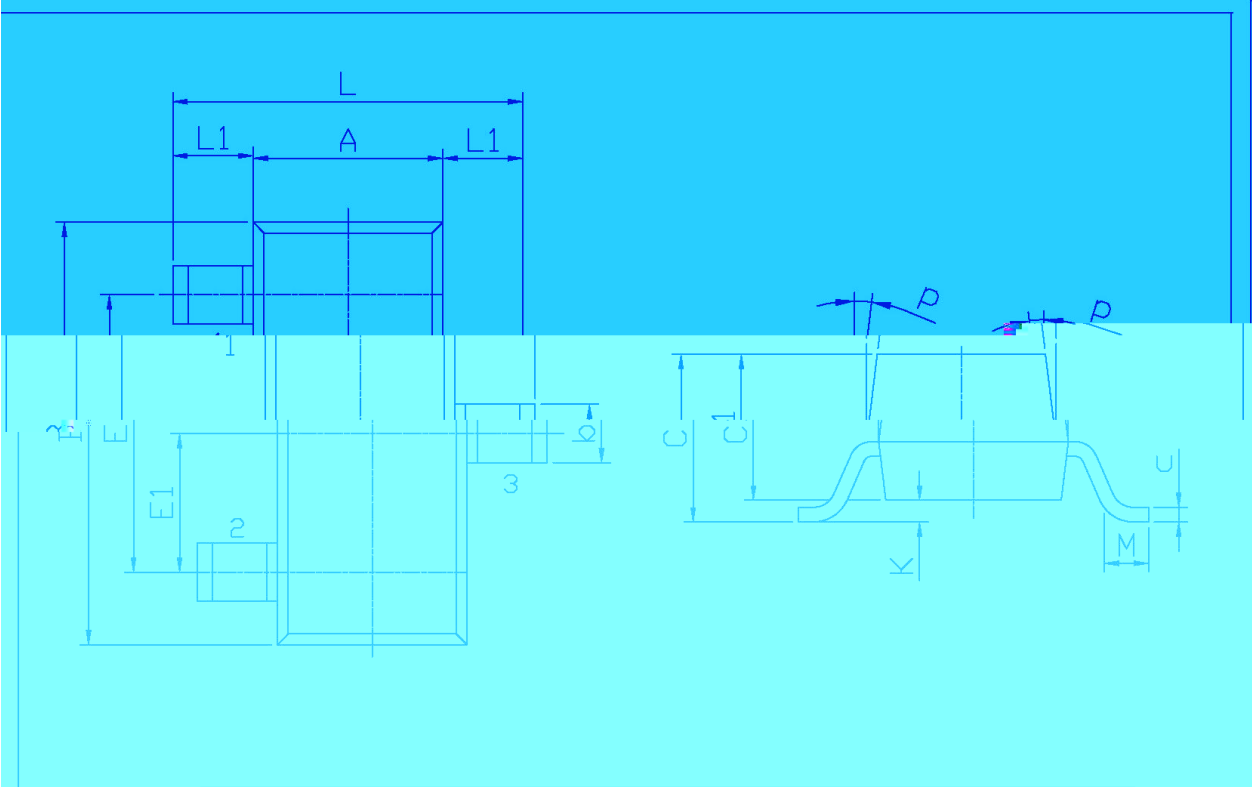
The figure contains two graphs. The left graph, titled 'PT - Ta', shows Power Dissipation (PT) in mW on the y-axis (0 to 250) versus Ambient Temperature (Ta) in °C on the x-axis (-150 to 10). It includes curves for PT at Ta = 25°C, 50°C, 75°C, and 100°C, showing a decrease in power dissipation as temperature increases. The right graph, titled 'Ic - Vce', shows Collector Current (Ic) in mA on the y-axis (0 to 100) versus Collector-Emitter Voltage (Vce) in V on the x-axis (0 to 125). It includes curves for Ic at Vce = 50V, 75V, 100V, and 125V, showing a slight increase in current with voltage.



/ Package Dimensions

SOT-23

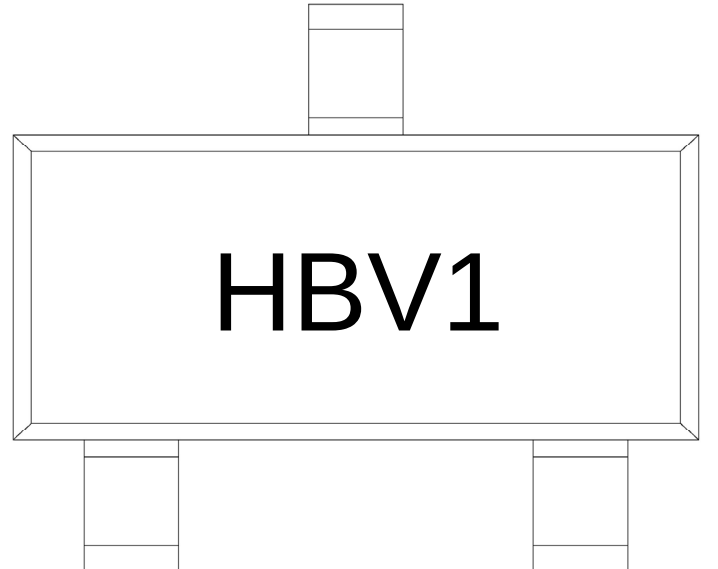
单位: mm



Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
L	2.2	2.7	C	1.30Max	
L1	0.45	0.65	C1	0.50Max	

A	1.15	1.50	C	0.05	0.20
R	2.70	2.80			

/ Marking Instructions



H

BV

1 h_{FE}

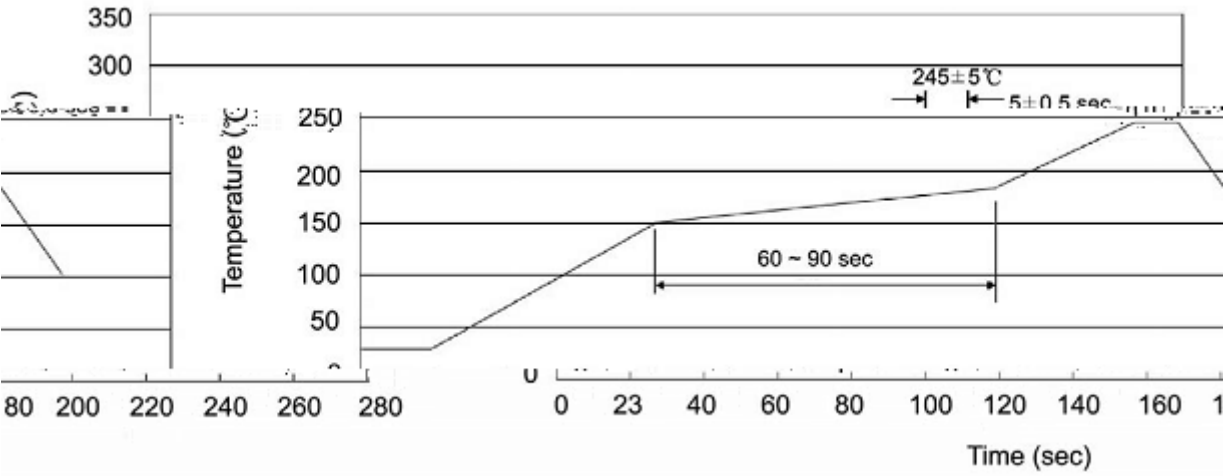
Note:

H: Company Code.

BV: Product Type Code

1: h_{FE} Classifications Symbol Code

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Note:

- 1

25 150

60 90sec;

1.Preheating:25~150 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5 Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	只 卷盘	卷盘 盒	只 盒	盒 箱	只 箱		盒	箱

/ Notices