

**/ Descriptions**

Silicon NPN transistor in a SOT-323 Plastic Package.

**/ Features**

High  $h_{FE}$  and  $V_{CEO}$ , complementary pair with 2SA812W.

**/ Applications**

Audio frequency general amplifier application.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Emitter      PIN 2 Base      PIN 3 Collector

**/ Marking**

$h_{FE}$ Classifications Symbol	O	Y	G	L
$h_{FE}$ Range	90 180	135 270	200 400	300 600
Marking	HL4	HL5	HL6	HL7

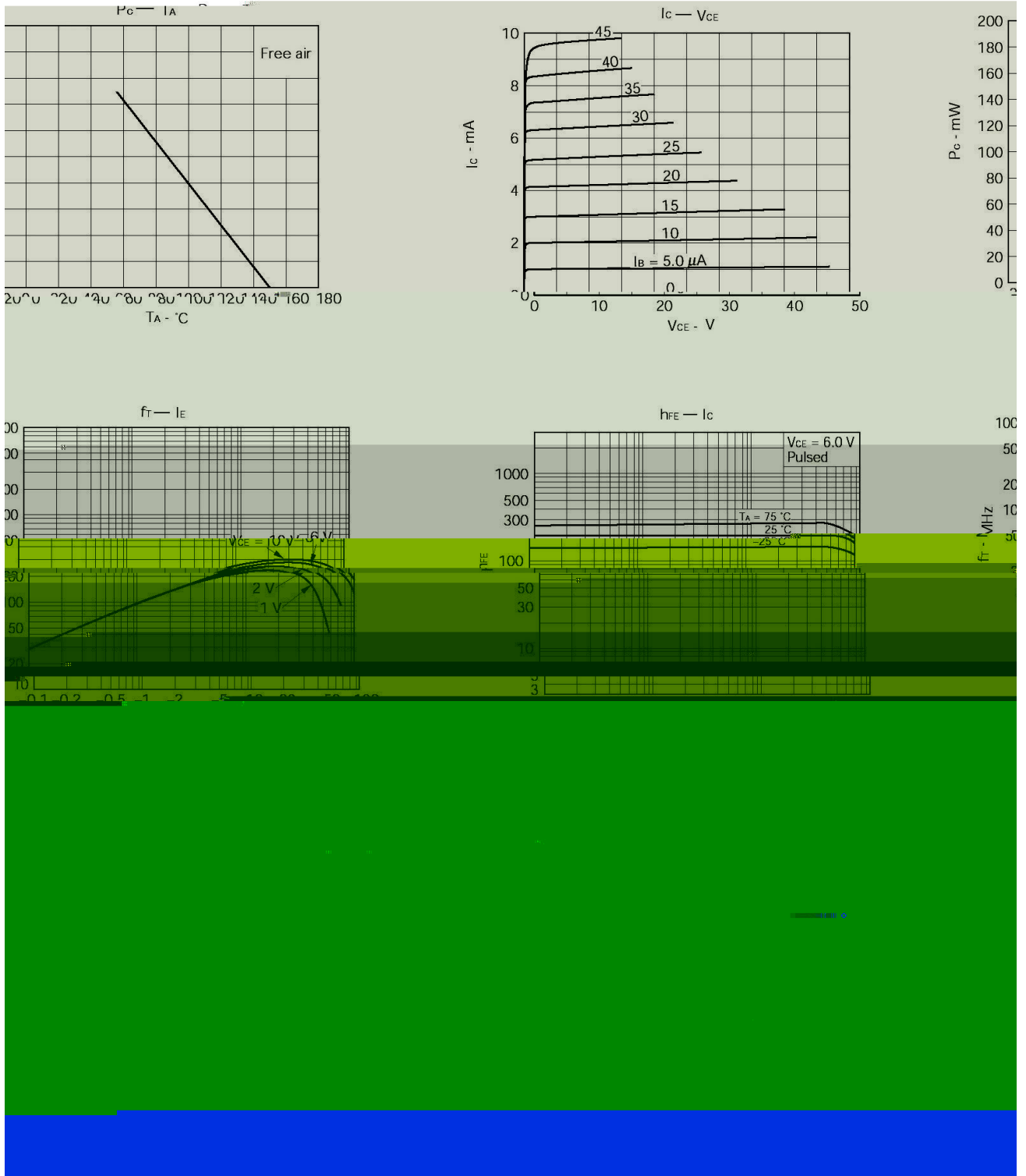
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	60	V
Collector to Emitter Voltage	$V_{CEO}$	50	V
Emitter to Base Voltage	$V_{EBO}$	5.0	V
Collector Current - Continuous	$I_C$	100	mA
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

**/ Electrical Characteristics(Ta=25 )**

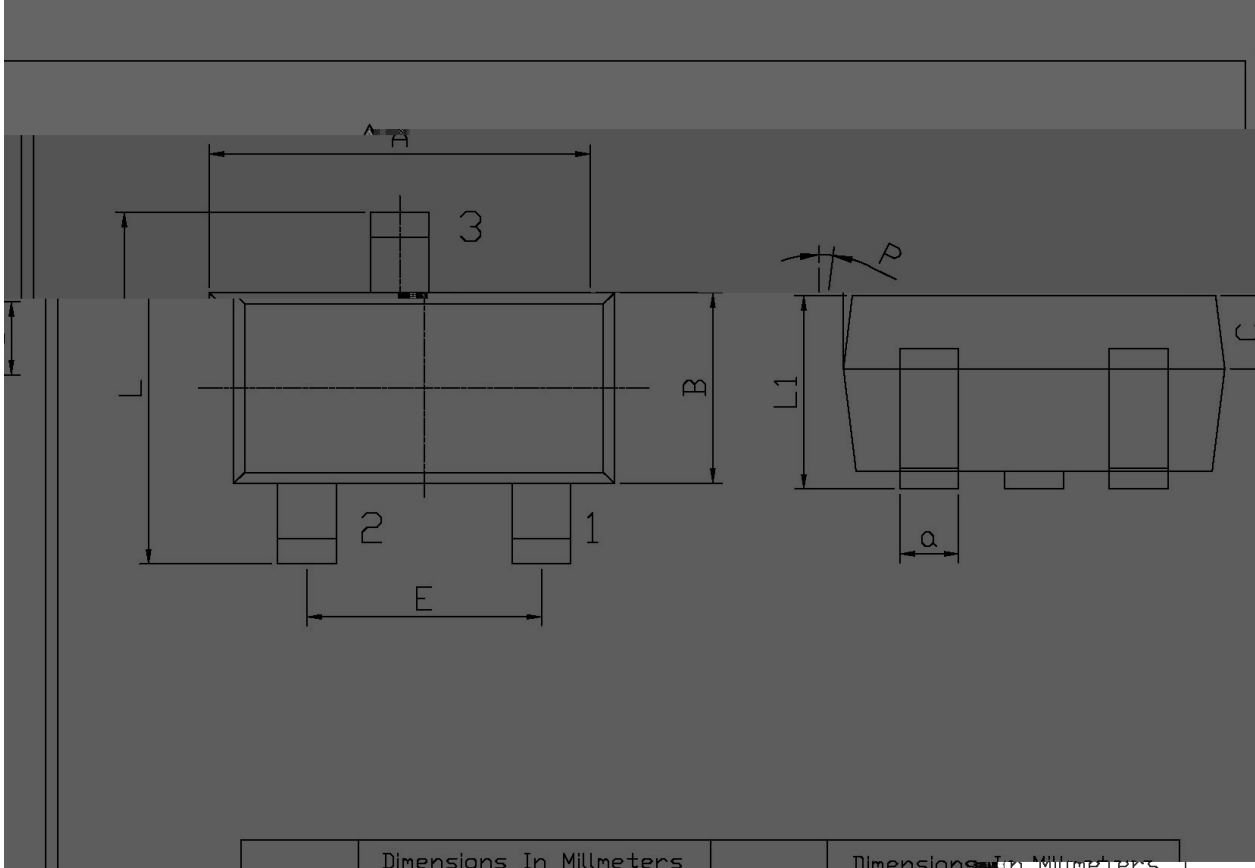
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=60V$ $I_E=0$			0.1	$\mu A$
Emitter Base Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			0.1	$\mu A$
DC Current Gain	$h_{FE}$	$V_{CE}=6.0V$ $I_C=1.0mA$	90	200	600	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.15	0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$ $I_B=10mA$		0.86	1.0	V
Base to Emitter Voltage	$V_{BE}$	$V_{CE}=6.0V$ $I_C=1.0mA$	0.55	0.62	0.65	V
Transition Frequency	$f_T$	$V_{CE}=6.0V$ $I_C=10mA$		250		MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=6.0V$ $f=1.0MHz$ $I_E=0$		3.0		pF

**/ Electrical Characteristic Curve**



/ Package Dimensions

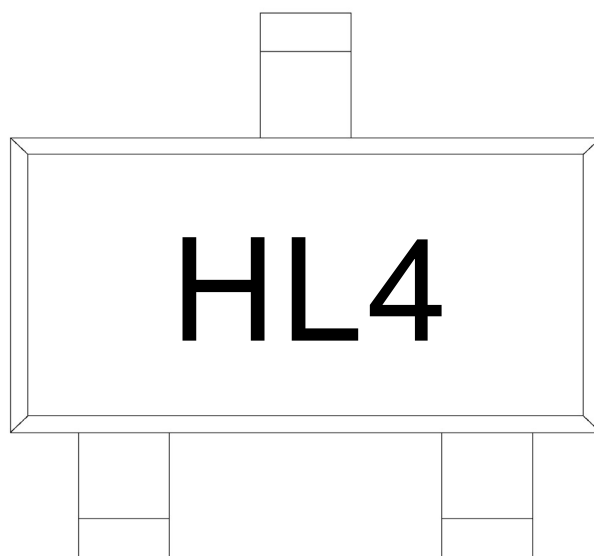
SOT-323 单位: mm



Dimensions In Millimeters

A	1.20	B	1.40	a	0.25
B	1.15	C	1.35	P	0.40

/ Marking Instructions



H

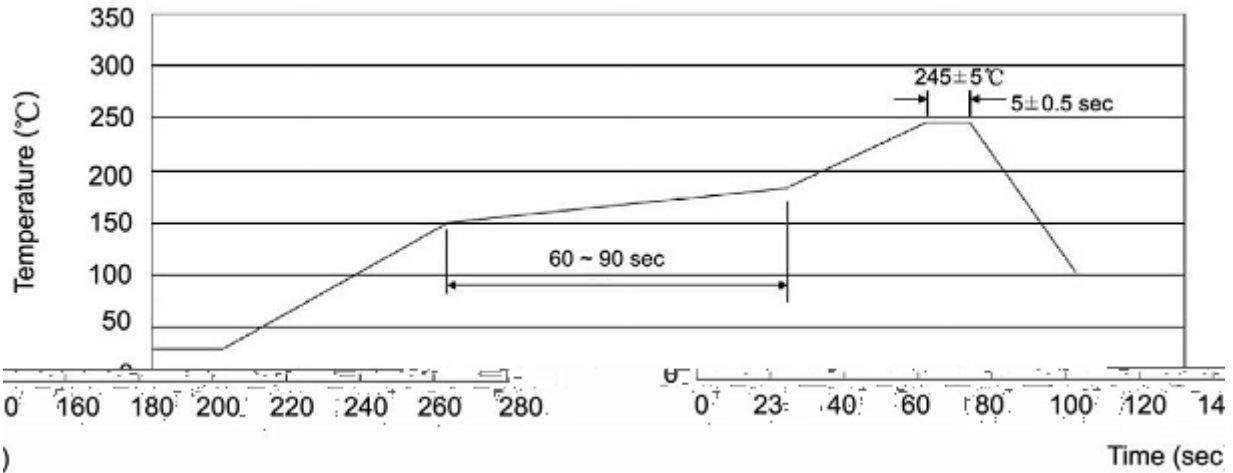
L4

Note:

H: Company Code.

L4: Product Type.

( ) / K\d g\iXk i\`Gif]`d`]fi @ `l \]f n `Jf d \i e^ZGY\$-i\`z



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 <sup>3</sup> )		
	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-323	3,000	10	30,000	6	180,000	7 ×8	180×120×180	390×385×205

/ Notices