

/ Descriptions

Silicon NPN transistor in a SOT-89 Plastic Package.

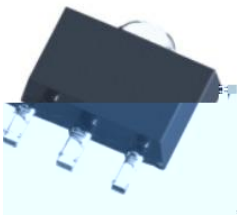
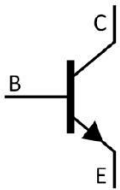
/ Features

High h_{FE} , for out stage of 1 watts amplifier, complementary to 2SA1204.

/ Applications

Audio frequency amplifier applications

/ Equivalent Circuit



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ Marking

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	100 200	160 320
Marking	HPO	HPY

/ Absolute Maximum Ratings(Ta=25 –)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	35	V
Collector to Emitter Voltage	V_{CEO}	30	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current-Continuous	I_C	800	mA
Collector Base-Continuous	I_B	160	mA
Collector Power Dissipation	P_C	0.5	W
Collector Power Dissipation*	$*P_C$	1.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

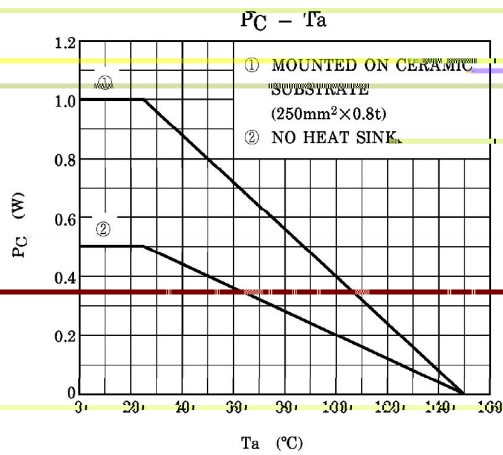
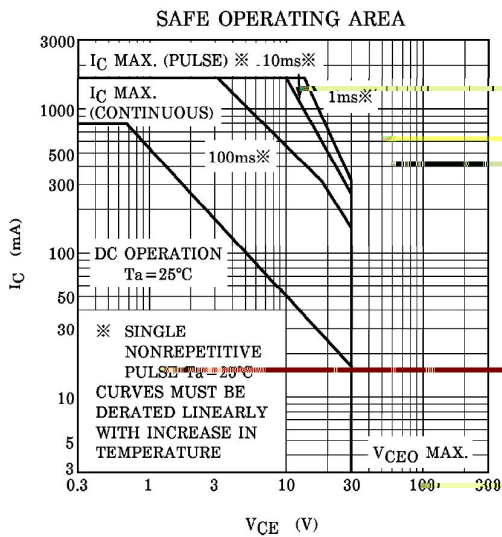
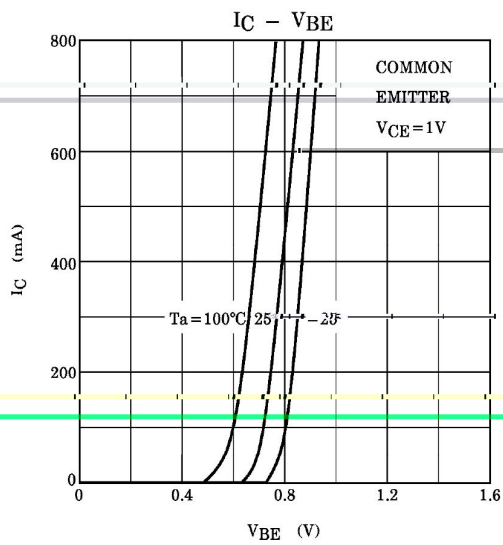
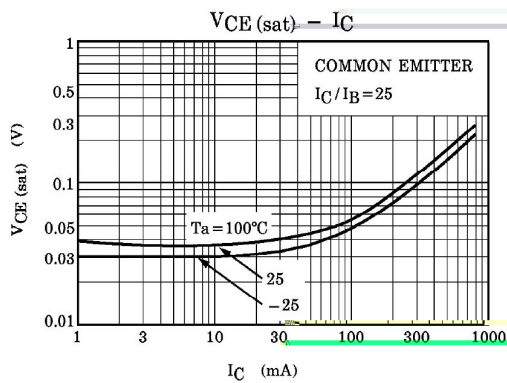
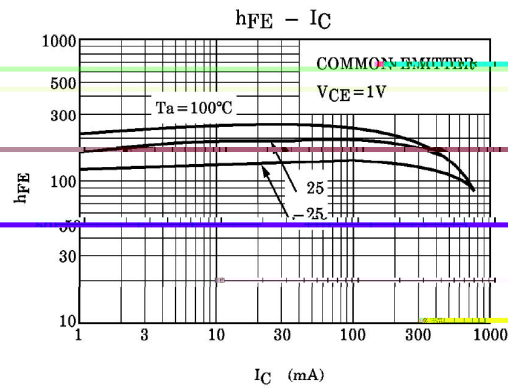
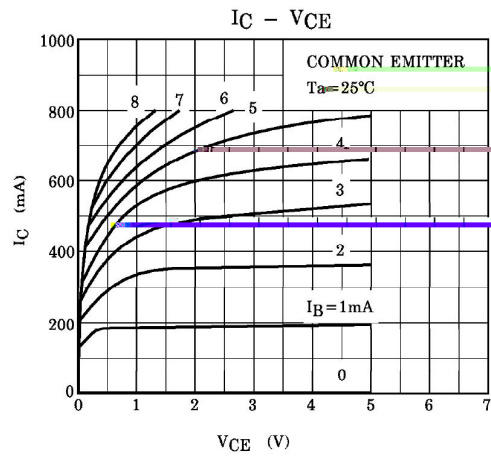
*:mounted on 16cm²×7mm ceramic substrate.

*:

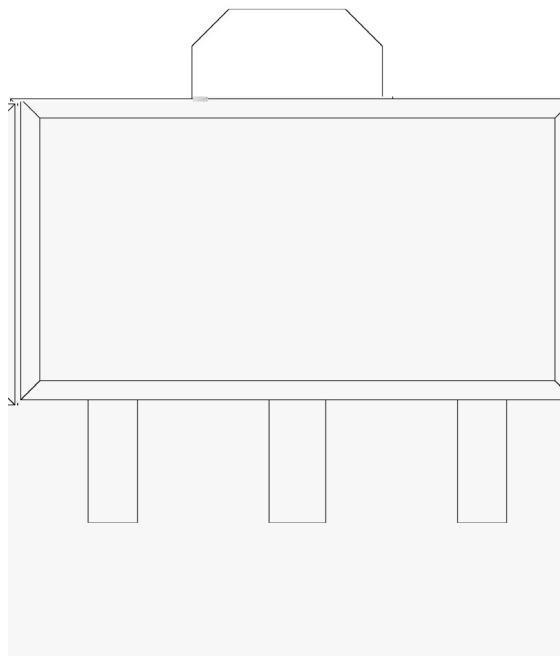
/ Electrical Characteristics(Ta=25 –)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=35V$ $I_E=0$			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=5.0V$ $I_C=0$			0.1	A
Collector to Emitter Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	30			V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1.0V$ $I_C=100mA$	100		320	
	$h_{FE(2)}$	$V_{CE}=1.0V$ $I_C=700mA$	35			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=20mA$			0.5	V
Emitter to Base Saturation Voltage	V_{BE}	$I_C=1.0V$ $I_B=10mA$	0.5		0.8	V
Transition Frequency	f_T	$V_{CE}=5.0V$ $I_C=10mA$		120		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1MHz$		13		pF

/ Electrical Characteristic Curve



/ Marking Instructions



H

P

O h_{FE}

Note:

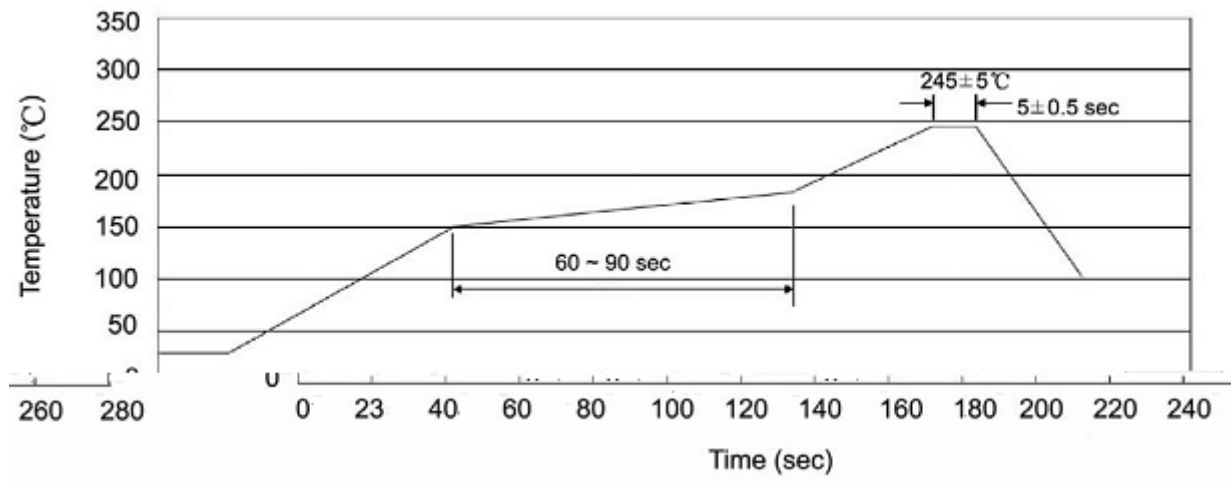
H: Company Code.

P: Product Type.

O h_{FE} Classifications Symbol

**: Lot No. Code, code change with Lot No.

() / Whp shudwxuh Suriloh i ru LU Uhior z Vroghulqj+Se0luhh,



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)		
	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-89	1,000	7	7,000	8	56,000	7 ×12	180×120×180	385×257×392

/ Notices