

/ Descriptions

Silicon NPN transistor in a SOT-89 Plastic Package.

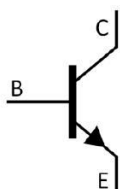
/ Features

High f_T , high V_{CEO} , small flat package, complementary pair with 2SA1201.

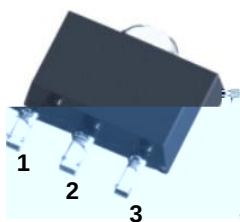
/ Applications

Power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ Marking

h_{FE} Classifications Symbol	O	Y
h_{FE} Range	80 160	120 240
Marking	HCO * *	HCY * *

/ Absolute Maximum Ratings(Ta=25 –)

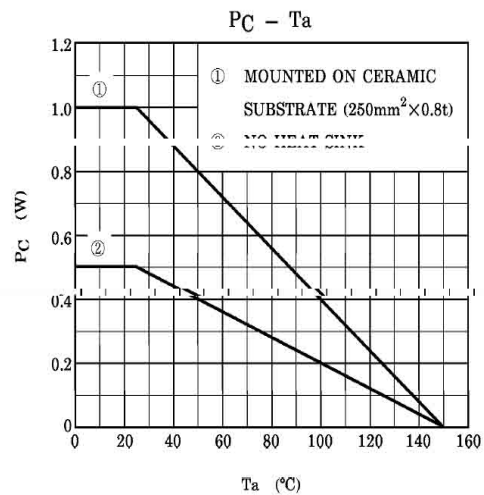
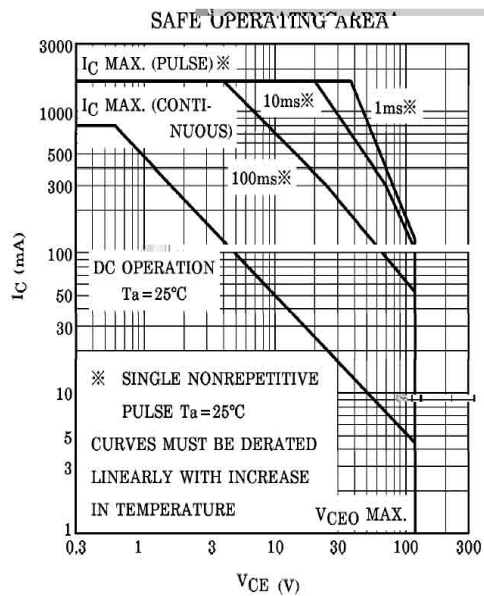
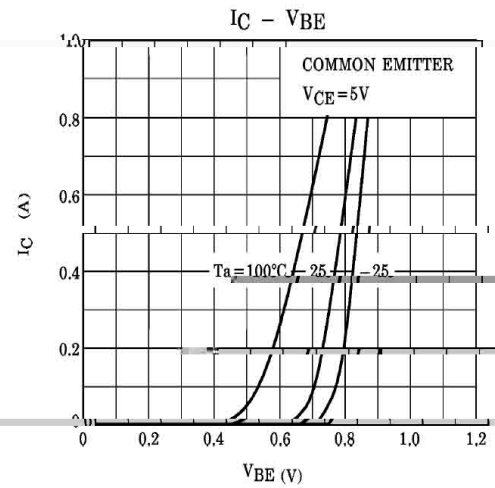
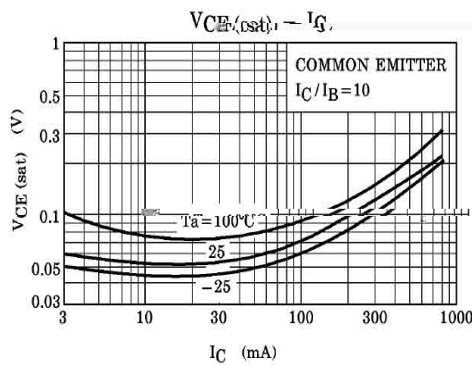
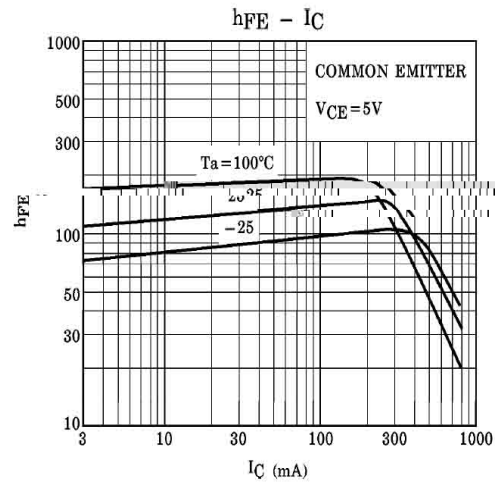
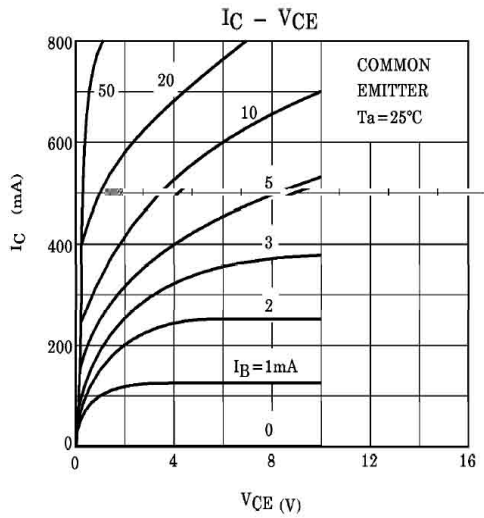
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	120	V
Collector to Emitter Voltage	V_{CEO}	120	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current-Continuous	I_C	800	mA
Collector Base-Continuous	I_B	160	mA
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation*	$*P_C$	1.0	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

*Mounted on ceramic substrate(250mm²×0.8t)

/ Electrical Characteristics(Ta=25 –)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	120			V
Emitter to Base Breakdown Voltage	V_{EBO}	$I_C=1.0mA$ $I_C=0$	5.0			V
Collector Cut-Off Current		$V_{CB}=120V$ $I_E=0$			0.1	μA
Emitter Base Cut-Off Current		$V_{EB}=5.0V$ $I_C=0$			0.1	μA
DC Current Gain		$V_{CE}=5.0V$ $I_C=100mA$	80		240	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$			1.0	V
Emitter to Base Saturation Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=500mA$			1.0	V
Transition Frequency		$V_{CE}=5.0V$ $I_C=100mA$		120		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $I_E=0$ $f=1.0MHz$			30	pF

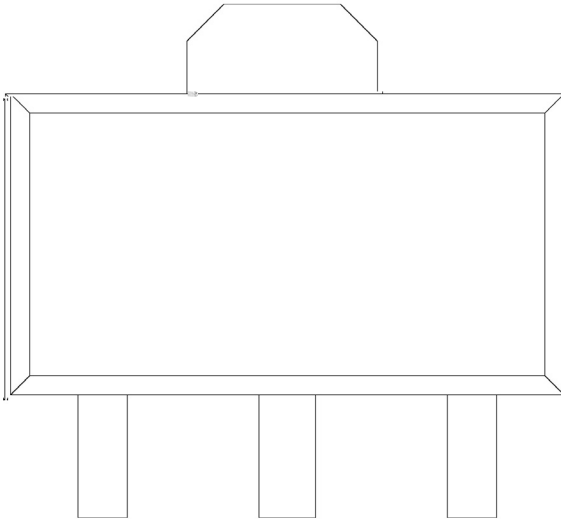
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



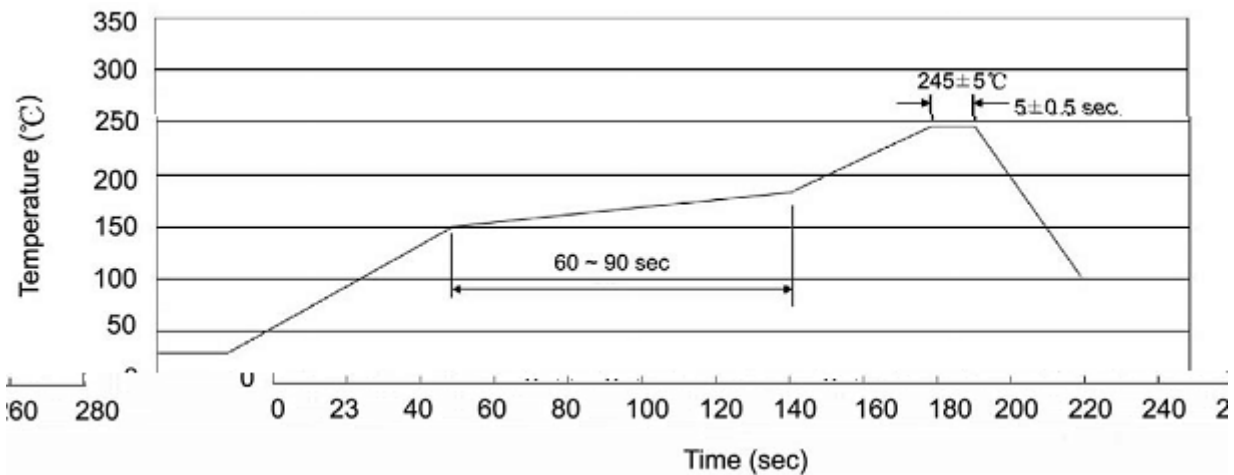
H
C
O

Note:

H: Company 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)		
	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