

/ Descriptions

Silicon NPN transistor in a SOT-89 Plastic Package.

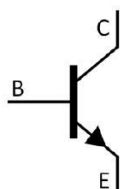
/ Features

High V_{CEO} , complementary pair with 2SA1013T. HF Product.

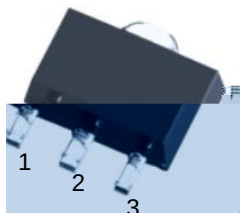
/ Applications

Color TV class B sound output applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ Marking

h_{FE} Classifications Symbol	R	O	Y
h_{FE} Range	60~120	100~200	160~320
Marking	H83R *	H83O *	H83Y *

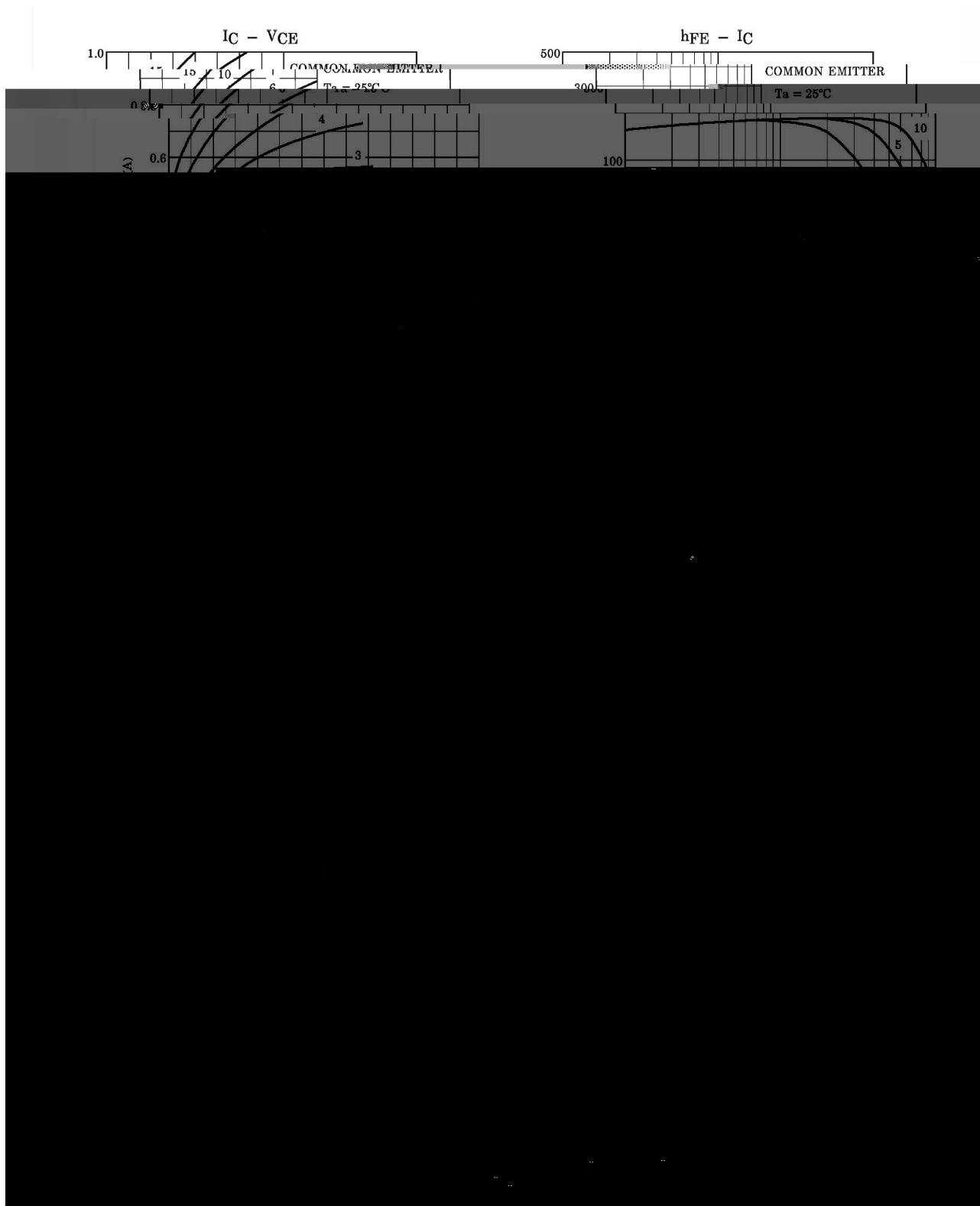
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	160	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current-Continuous	I_C	1.0	A
Collector Base-Continuous	I_B	0.5	A
Collector Power Dissipation	P_C	500	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 to Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA$ $I_B=0$	160			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=150V$ $I_E=0$			1.0	μA
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=6.0V$ $I_C=0$			1.0	μA
DC Current Gain	h_{FE}	$V_{CE}=5.0V$ $I_C=200mA$	60		320	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA$ $I_B=50mA$			1.5	V
Emitter to Base Saturation Voltage	V_{BE}	$V_{CE}=5.0V$ $I_C=5.0mA$	0.45		0.75	V
Transition Frequency	f_T	$V_{CE}=5.0V$ $I_C=200mA$	20	100		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$ $f=1.0MHz$ $I_E=0$			20	pF

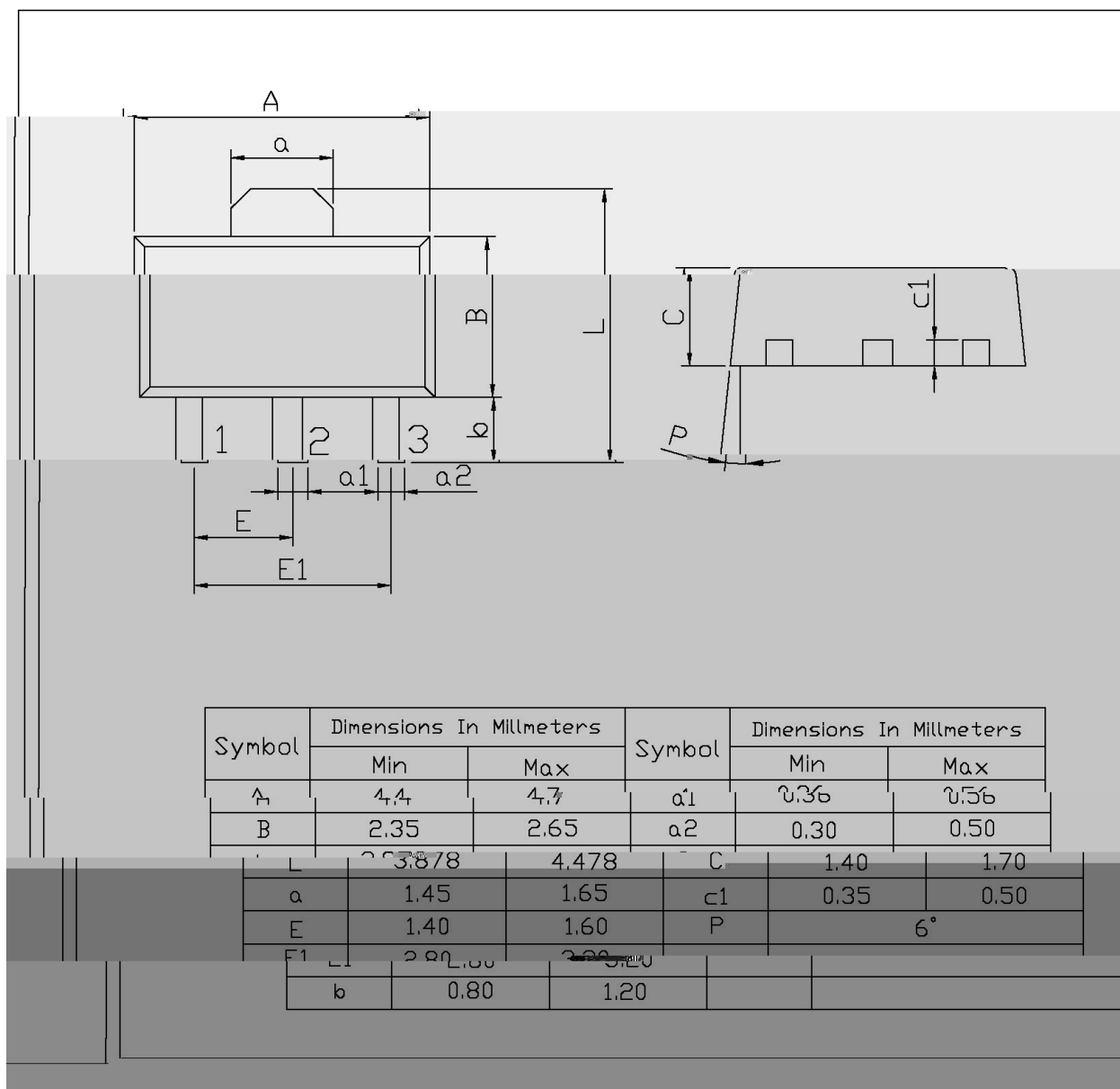
/ Electrical Characteristic Curve



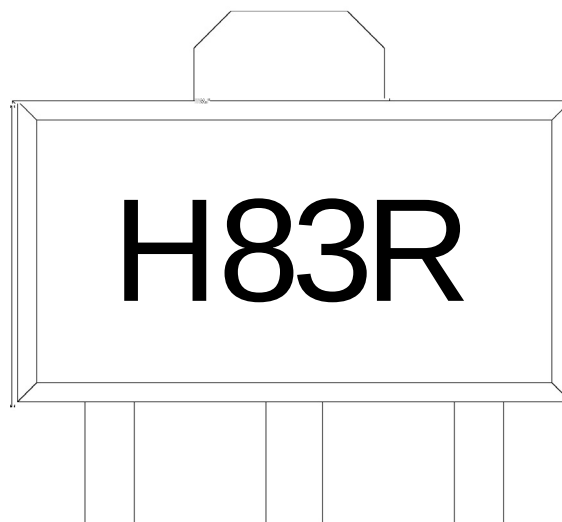
/ Package Dimensions

SOT-89

单位: mm



/ Marking Instructions



Note:

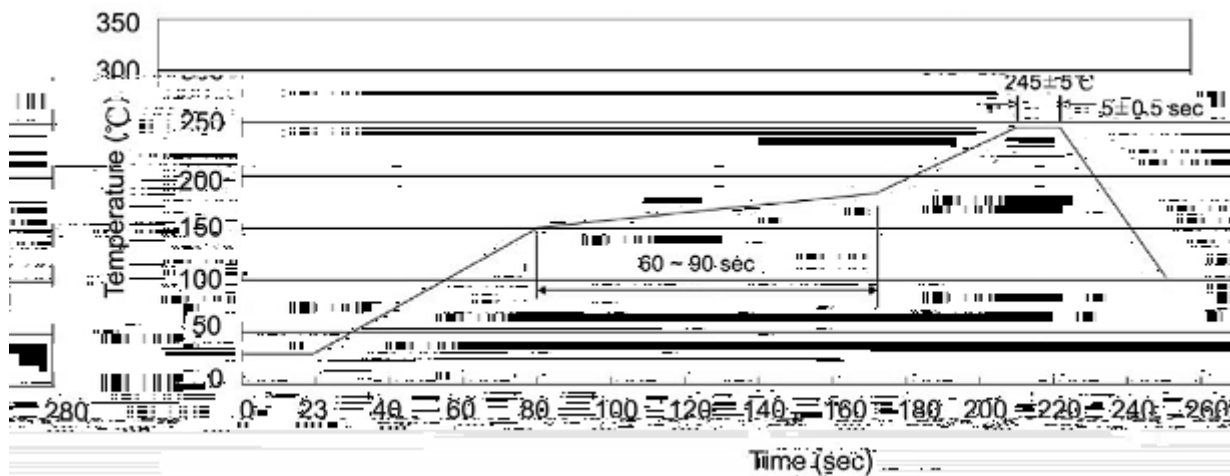
H: Company Code.

83: Product Type.

R: h_{FE} Classifications Symbol

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

() /



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 SOT-89	Units g m ô h					Dimension g m d Ê (unit ! mm³)		
	Units/Reel /í	Reels/Inner Box í /ç	Units/Inner Box /ç	Inner Boxes/Outer Box ç /±	Units/Outer Box /±	Reel	Inner Boxç	Outer Box±
SOT-89	1,000	7	7,000	6	42,000	007" x12	180x120x180	390x385x205

/ Notices