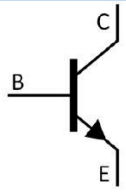
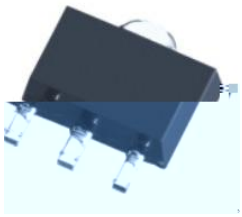
SOT-89 NPN Silicon NPN transistor in a SOT-89 Plastic Package.

, MMBT5401T

High voltage, complementary pair with MMBT5401T. Halogen-free Product.

General purpose high voltage amplifier.





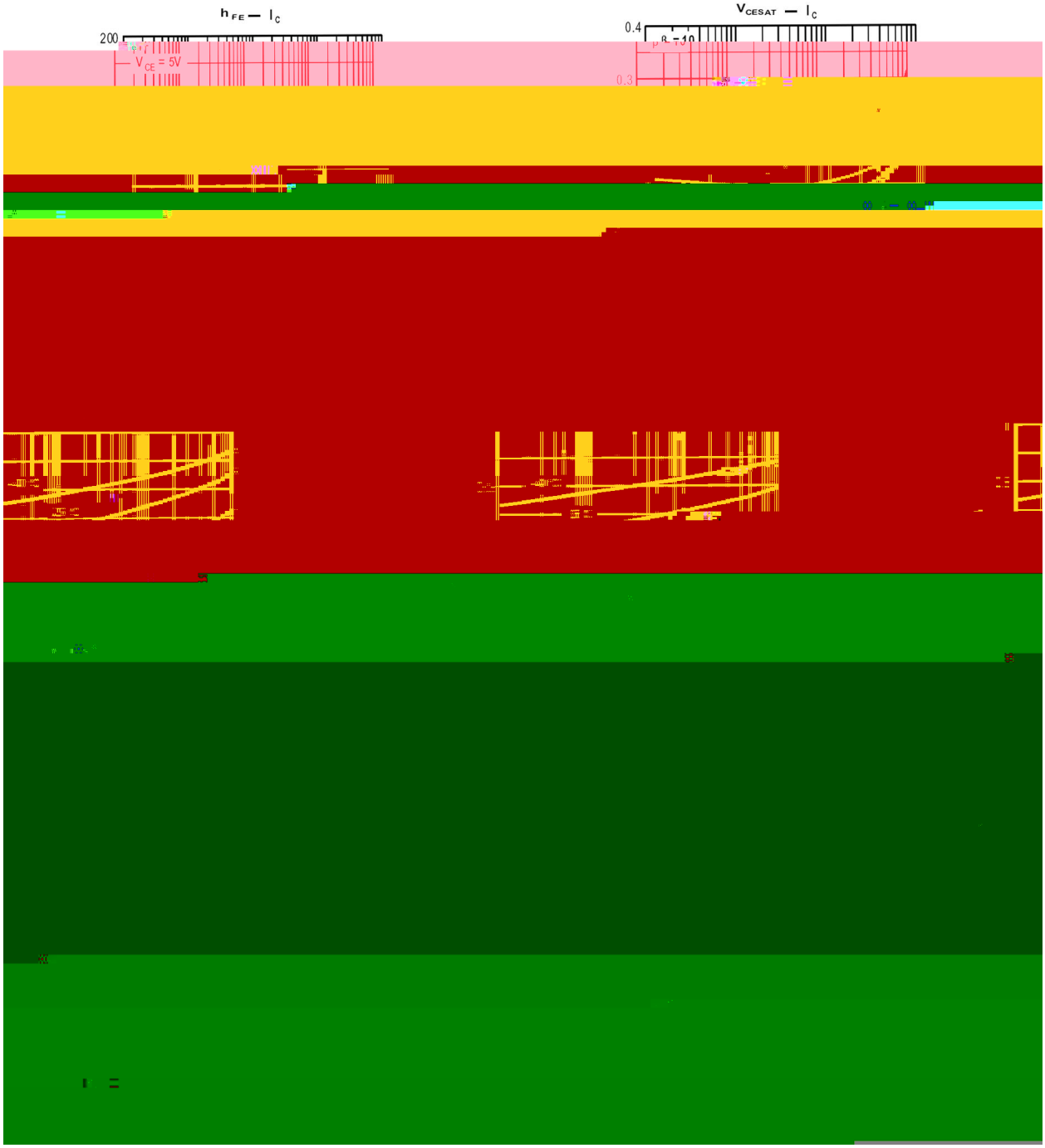
PIN1 Base PIN 2 Collector PIN 3 Emitter

h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50 150	100 300	200 400
Marking	HG1A**	HG1B**	HG1C**

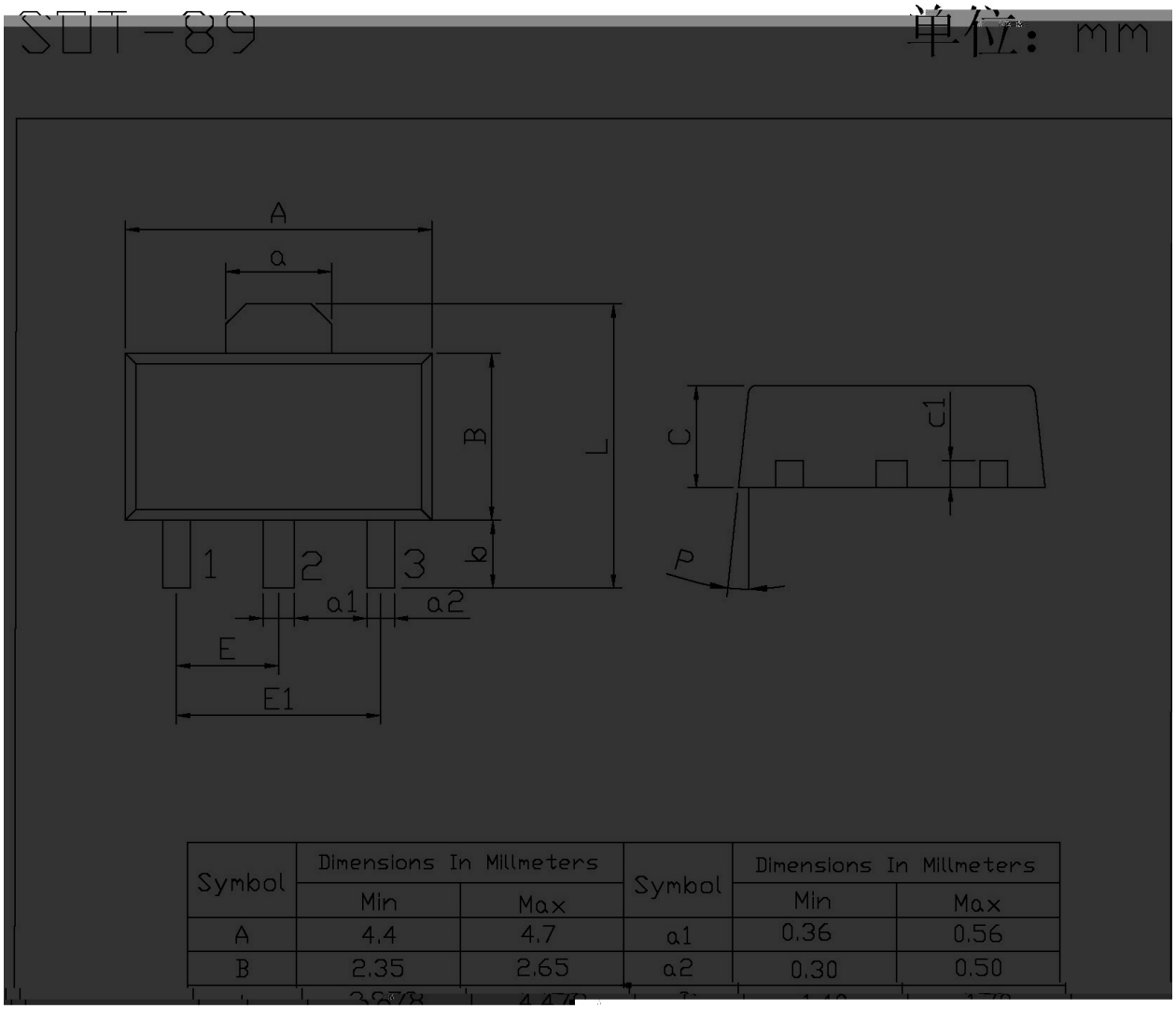
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	180	V
Collector to Emitter Voltage	V_{CEO}	160	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	600	mA
Collector Base - Continuous	I_B	300	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 150	℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=180V I_E=0			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=6.0V I_C=0			0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=5.0V I_C=10mA	50	200	400	
	$h_{FE(2)}$	V_{CE}=5.0V I_C=50mA	20	160		
	$h_{FE(3)}$	V_{CE}=5.0V I_C=1.0mA	40	190		
Collector to Emitter Saturation Voltage	$V_{CE(sat)\ (1)}$	I_C=10mA I_B=1.0mA		0.06	0.15	V
	$V_{CE(sat)\ (2)}$	I_C=50mA I_B=5.0mA		0.09	0.3	V
Emitter to Base Saturation Voltage	$V_{BE(sat)\ (1)}$	I_C=10mA I_B=1.0mA		0.7	1.0	V
	$V_{BE(sat)\ (2)}$	I_C=50mA I_B=5.0mA		0.8	1.0	V
Emitter to Base Voltage	V_{BE}	V_{CE}=5.0V I_C=10mA		0.68	0.75	V

E


h_{FE} — I_C
200
V_{CE} = 5V
V_{CESAT} — I_C
0.4
0.3

SOT-89 单位：mm



Symbol	Dimensions In Millmeters		Symbol	Dimensions In Millmeters	
	Min	Max		Min	Max
A	4.4	4.7	a1	0.36	0.56
B	2.35	2.65	a2	0.30	0.50

H

G1

A: h_{FE}

**

Note:

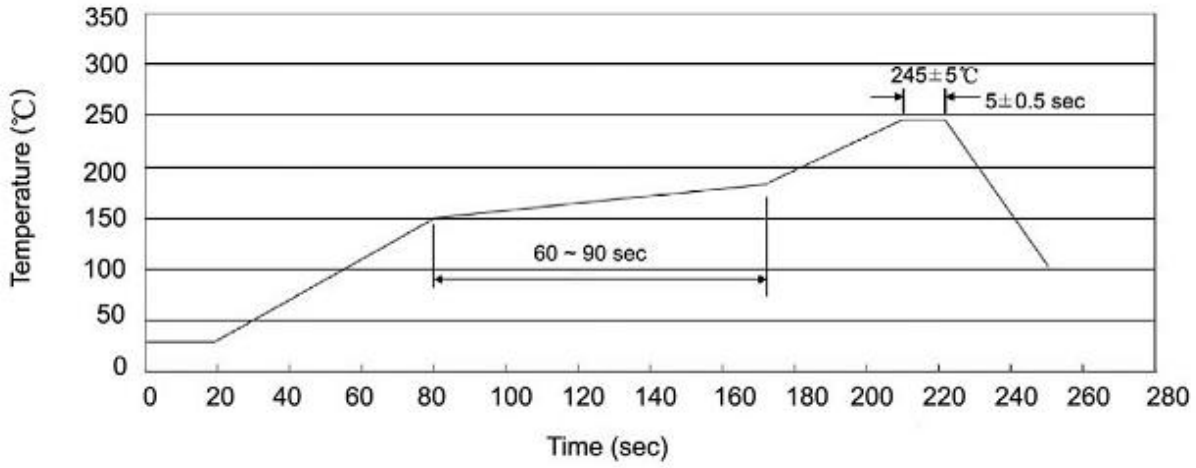
H: Company Code.

G1: Product Type.

A: h_{FE} Classifications Symbol

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

Temperature Profile for IR Reflow Soldering(Pb-Free)



		Note:
1	150 180 60 90sec;	1.Preheating:150~180 , 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.

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

/ 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