/ Descriptions

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

/ Features

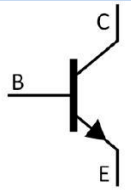
, MMBT5401T

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

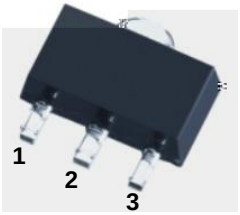
/ Applications

General purpose high voltage amplifier.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ Marking

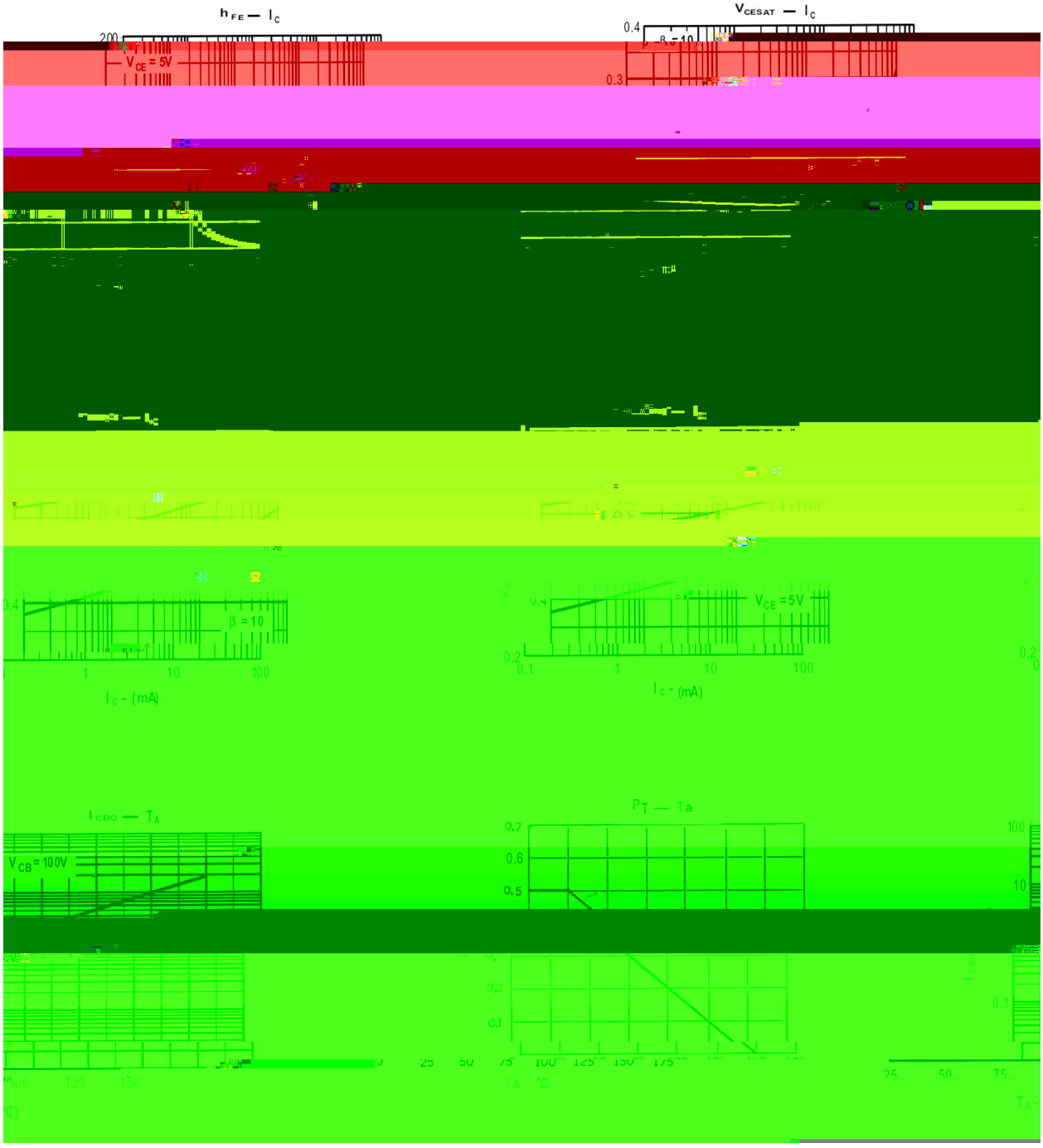
h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50 150	100 300	200 400
Marking	HG1A※	HG1B※	HG1C※

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

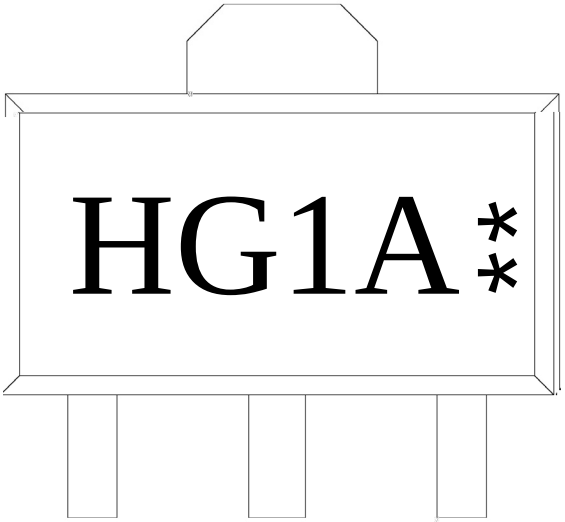
Ti0ncy

/ Electrical Characteristic Curve



MMBT5551T

/ Marking Instructions



H

G1

A: h_{FE}

**

Note:

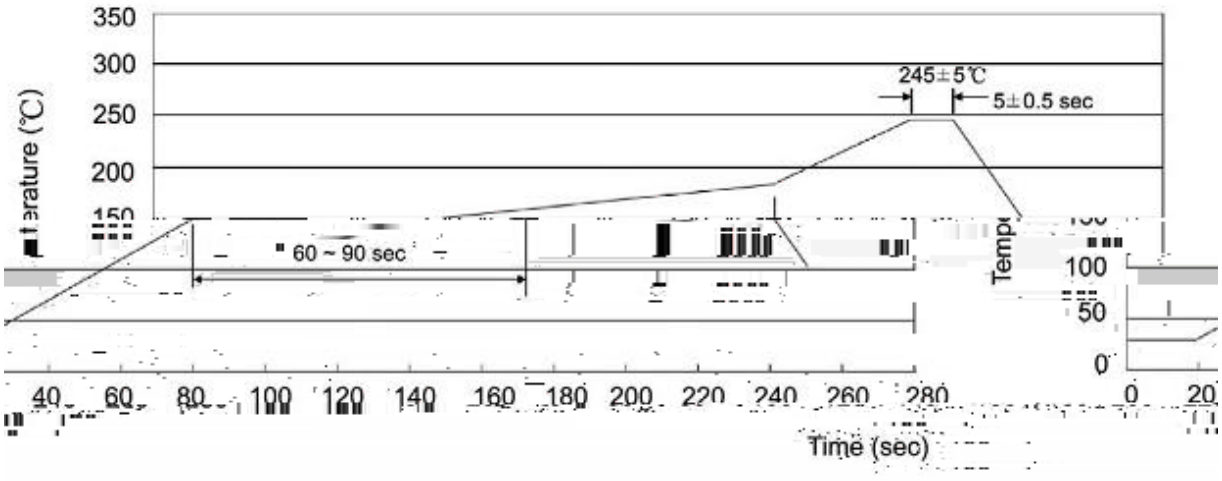
H: Company Code.

G1: Product Type.

A: h_{FE} Classifications Symbol

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

( ) / Whp shrdwxrh Prr iioh irr IU Uhiorw Vroghriqj+Pe-Frhh,



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.

/ 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