MMBT5401T

Rev.E Mar.-2016

DATA SHEET

"Yش / Descriptions

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

◕ È / Features

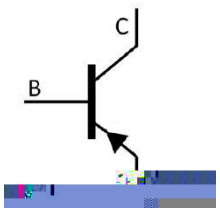
, MMBT5551T

High voltage, complementary Pair with MMBT5551T.

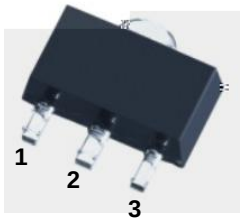
٧ ﻉ / Applications

General purpose high voltage amplifier.

ᑎ ف ٌ ٔ ≠ ع / Equivalent Circuit



ã ﺍ ﻭ ٌ / Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

ﻁ. ʜ ﺟ / Marking

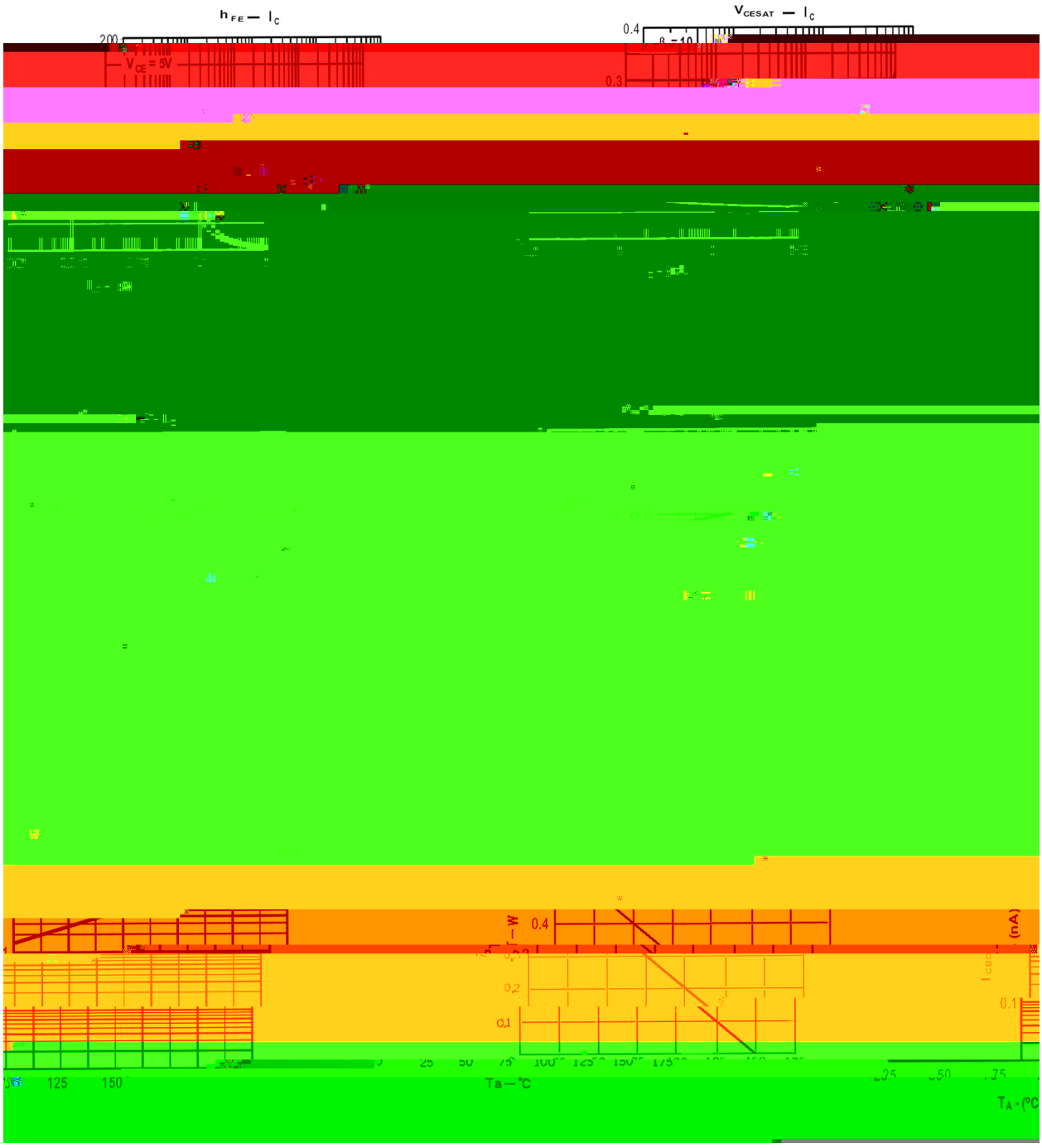
h_{FE} Classifications Symbol	A	B	C
h_{FE} Range	50 150	100 300	200 400
Marking	H2LA ⁑	H2LB ⁑	H2LC ⁑

ώ ̈ Ξ ̃Ạ

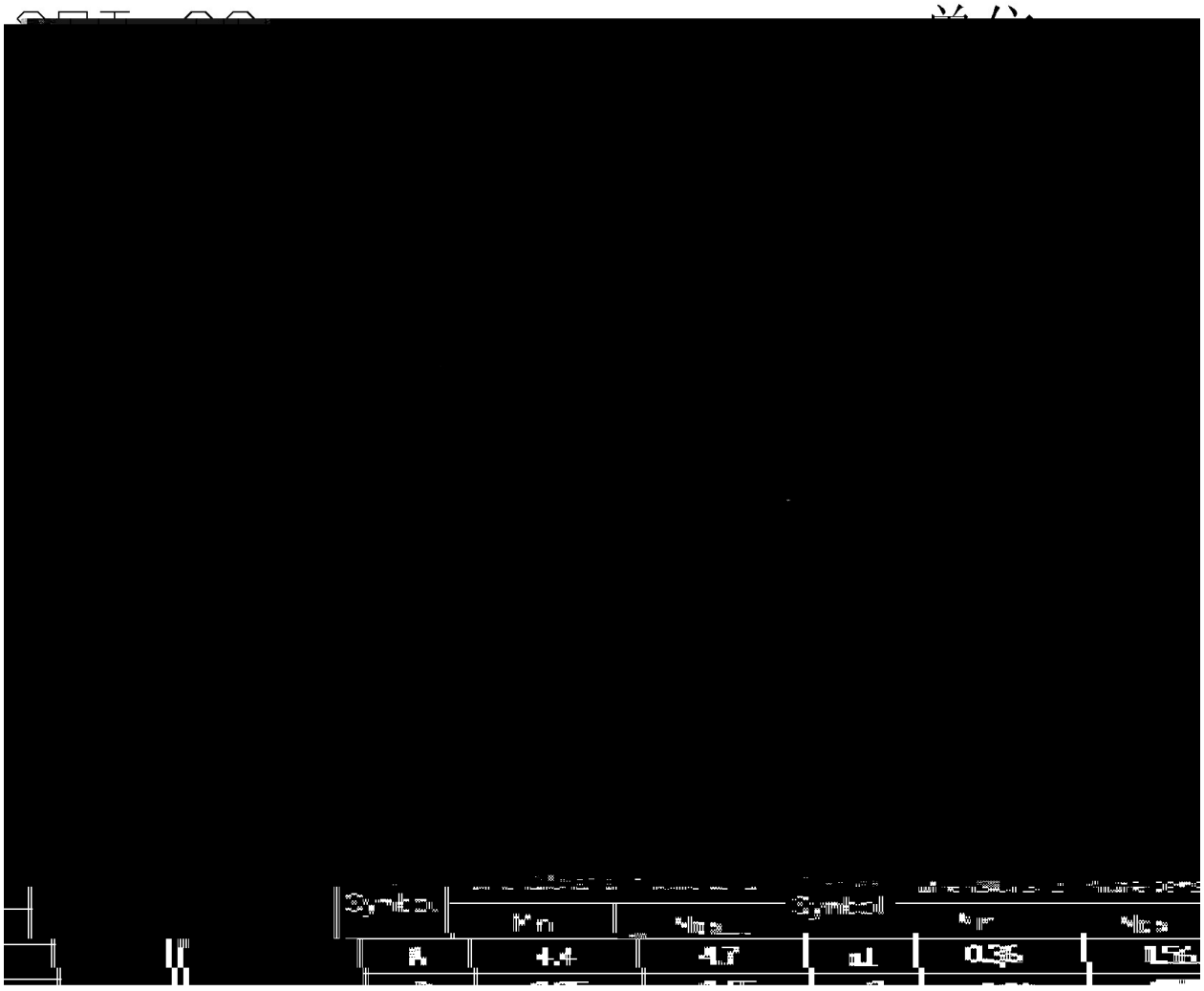
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-180	V
Collector to Emitter Voltage	V_{CEO}	-160	V
Emitter to Base Voltage	V_{EBO}	-6.0	V
Collector Current - Continuous	I_C	-600	mA
Collector Base - Continuous	I_B	-300	mA
Collector Power Dissipation	P_C	500	mW
Junction Temperature	T_j	150	
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	A
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=-6.0V I_C=0			-0.1	A
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	70		
	$h_{FE(3)}$	V_{CE}=-5.0V I_C=-1.0mA	40	180		
Collector to Emitter Saturation Voltage	$V_{CE(sat)\ (1)}$	I_C=-10mA I_B=-1.0mA		-0.12	-0.4	V
	$V_{CE(sat)\ (2)}$	I_C=-50mA I_B=-5.0mA		-0.5	-0.8	V
Emitter to Base Saturation Voltage	$V_{BE(sat)\ (1)}$	I_C=-10mA I_B=-1.0mA		-0.75	-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		-0.7	-0.75	V
Transition Frequency	f_T	V_{CE}=-10V I_E=10mA	50	80		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=10MHz		2.5	5.0	pF
Turn-on Time	t_{on}	I_C=-100Ma $-I_{B1}$=I_{B2}=-10mA		0.1		s
Turn-off Time	t_{off}			0.2		s
Storage Time	t_{stg}			0.1		s

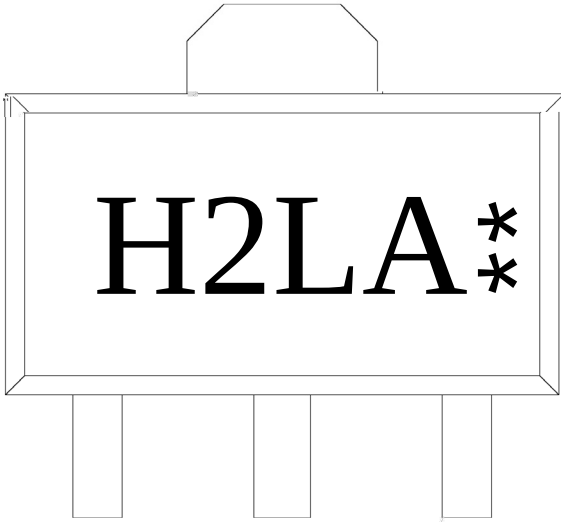
≠ ∃ ÃΈ ∀ ƒ / Electrical Characteristic Curve



ᵘ Ė Ồ Ļ ʃ / Package Dimensions



Ł. Ł Ω / Marking Instructions



H

2L

A: h_{FE}

**

Note:

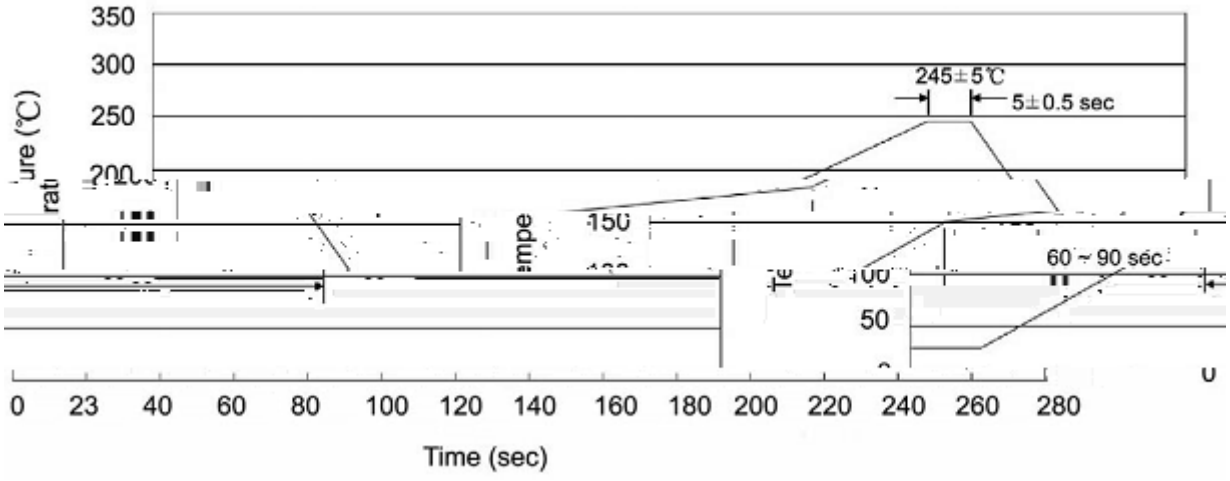
H: Company Code.

2L: Product Type.

A: h_{FE} Classifications Symbol

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

₩h ʃ ╕ẘ´E ⱶ ƒ (ώ ʊs) / Wh p shudwxuh Suriloh iru LU Uhio r z Vroghulq j+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.

⅃ ü q ¯ `Y Ţ / Resistance to Soldering Heat Test Conditions

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

ɒ Ŀ ≮— / Packaging SPEC.

/ REEL

Package Type	Units					Dimension		(unit mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SOT-89	1,000	7	7,000	8	56,000	7 ×12	180×120×180	385×257×392

ä ₰ Ļ Ω / Notices