

**/ Descriptions**

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

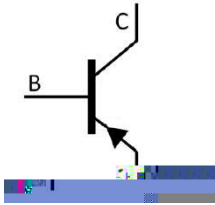
**/ Features**

MMBT5551T  
High voltage, complementary Pair with MMBT5551T.

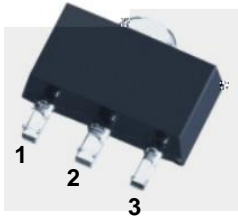
**/ Applications**

General purpose high voltage amplifier.

**/ Equivalent Circuit**



**/ Pinning**



PIN1 Base          PIN 2 Collector          PIN 3 Emitter

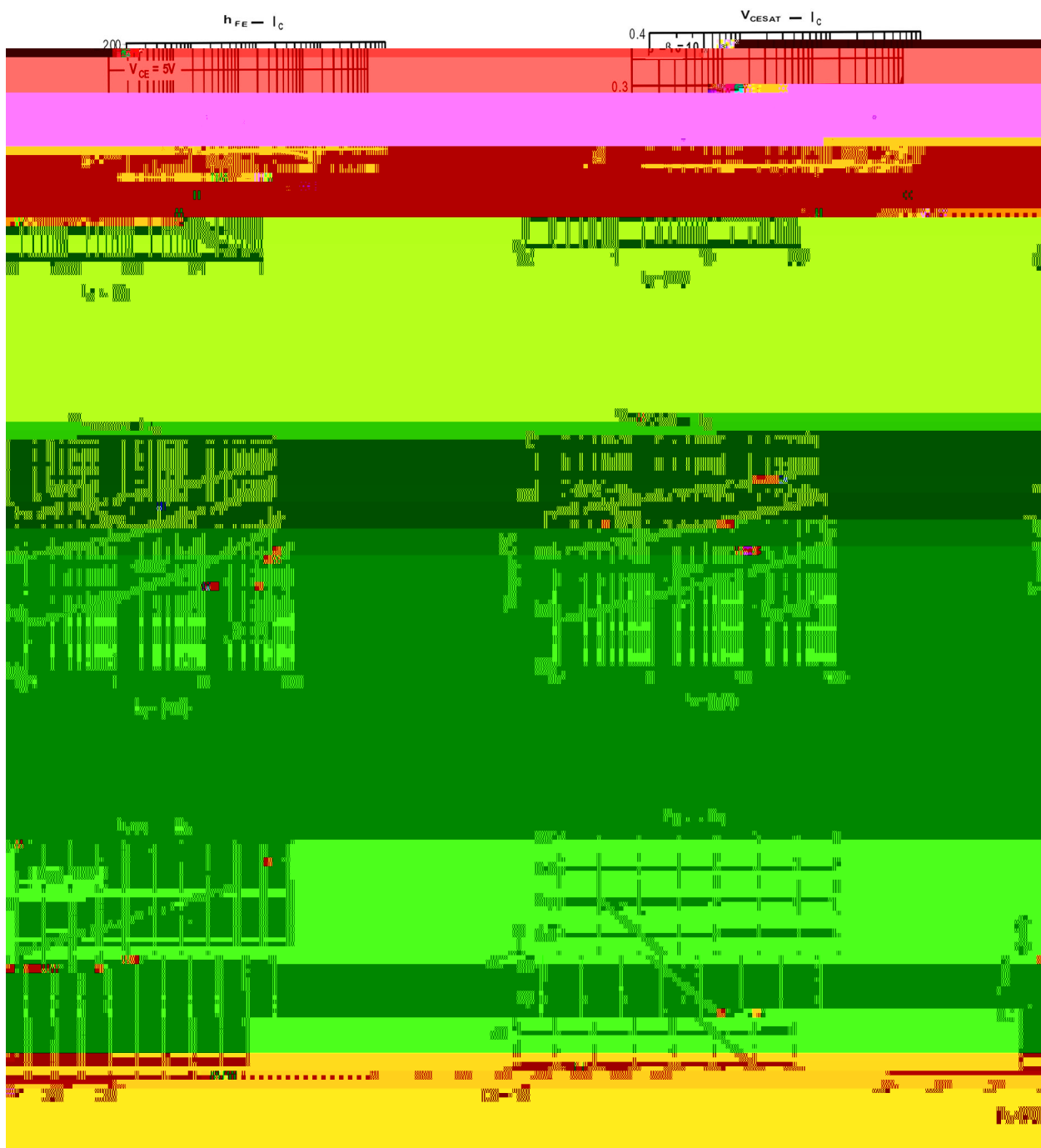
**/ Marking**

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

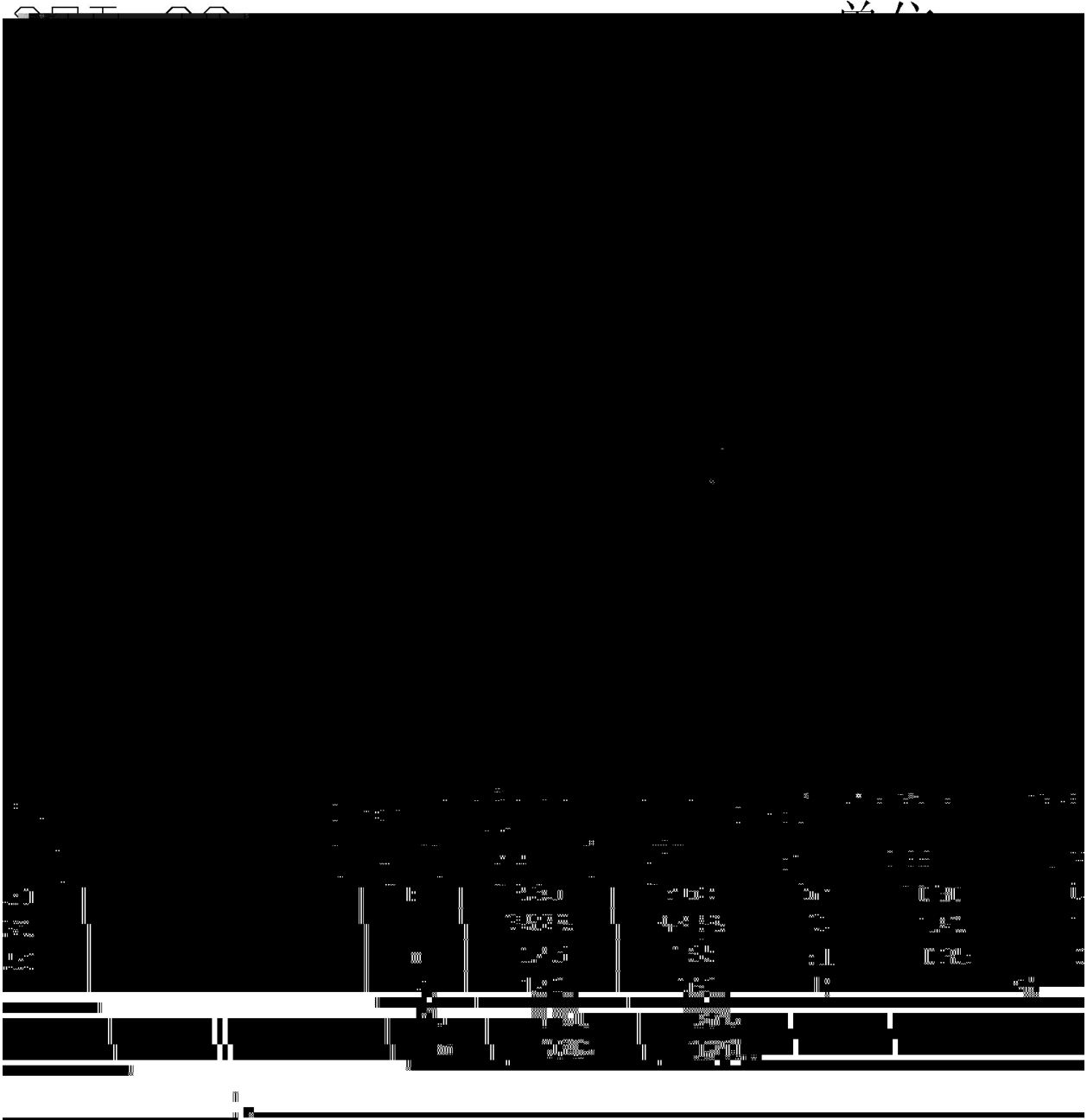
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-180	V
Collector to Emitter Voltage	$V_{CEO}$	-160	V
Emitter to Base Voltage	$V_{EBO}$	-6.0	V
Collector Current - Continuous	$I_C$	-600	mA
Collector Base - Continuous	$I_B$	-300	mA
Collector Power Dissipation	$P_C$	500	mW
Junction Temperature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

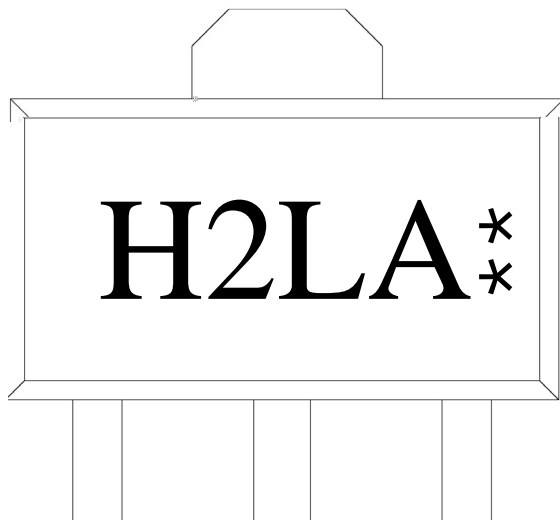
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



H

2L

A:  $h_{FE}$

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Note:

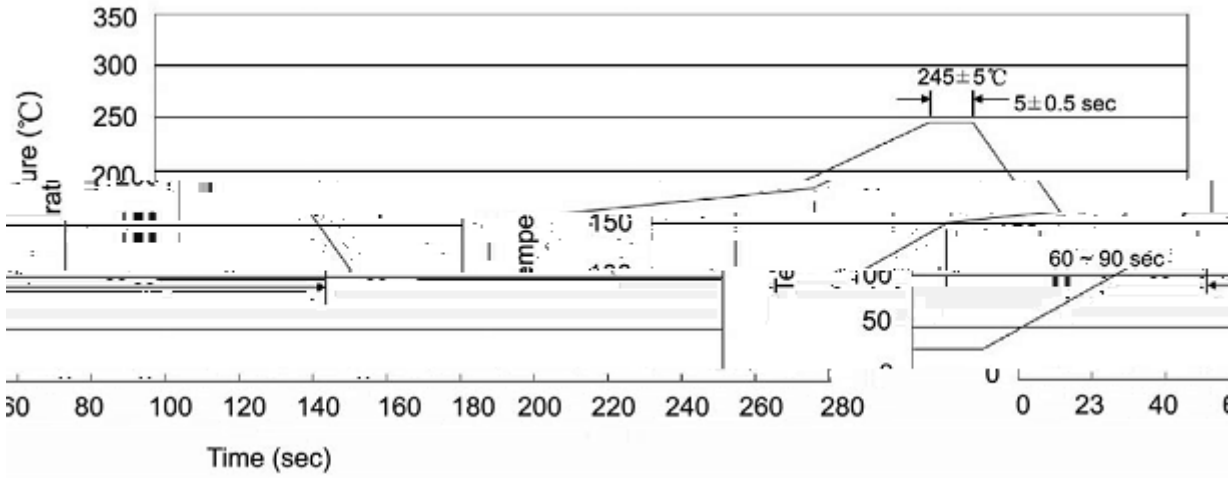
H: Company Code.

2L: Product Type.

A:  $h_{FE}$  Classifications Symbol

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

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Note:

- |   |       |     |       |            |   |
|---|-------|-----|-------|------------|---|
| 1 | 25    | 150 | 60    | 90sec;     | 1.Preheating:25~150 °C, Time:60~90sec.    |
| 2 | 245±5 |     | 5±0.5 | sec;       | 2.Peak Temp.:245±5 °C, Duration:5±0.5sec. |
| 3 |       |     | 2     | 10 °C/sec. | 3. Cooling Speed: 2~10 °C/sec.            |

/ Resistance to Soldering Heat Test Conditions

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

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	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

/ Notices