

# MMBT2907AT

Rev.G Dec.-2024

## / Descriptions

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

## / Features

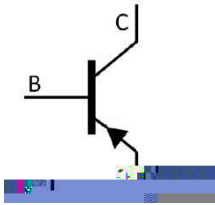
600mA

Collector currents to 600mA, HF Product.

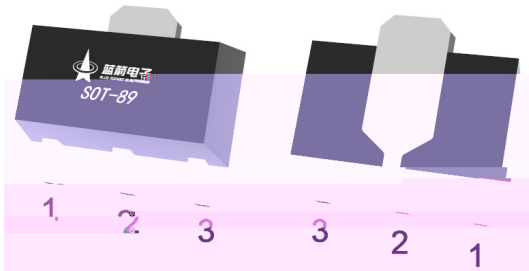
## / Applications

General purpose amplifier.

## / Equivalent Circuit



## / Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

## / h<sub>FE</sub> Classifications & Marking

Marking	H2F
---------	-----

# MMBT2907AT

Rev.G Dec.-2024

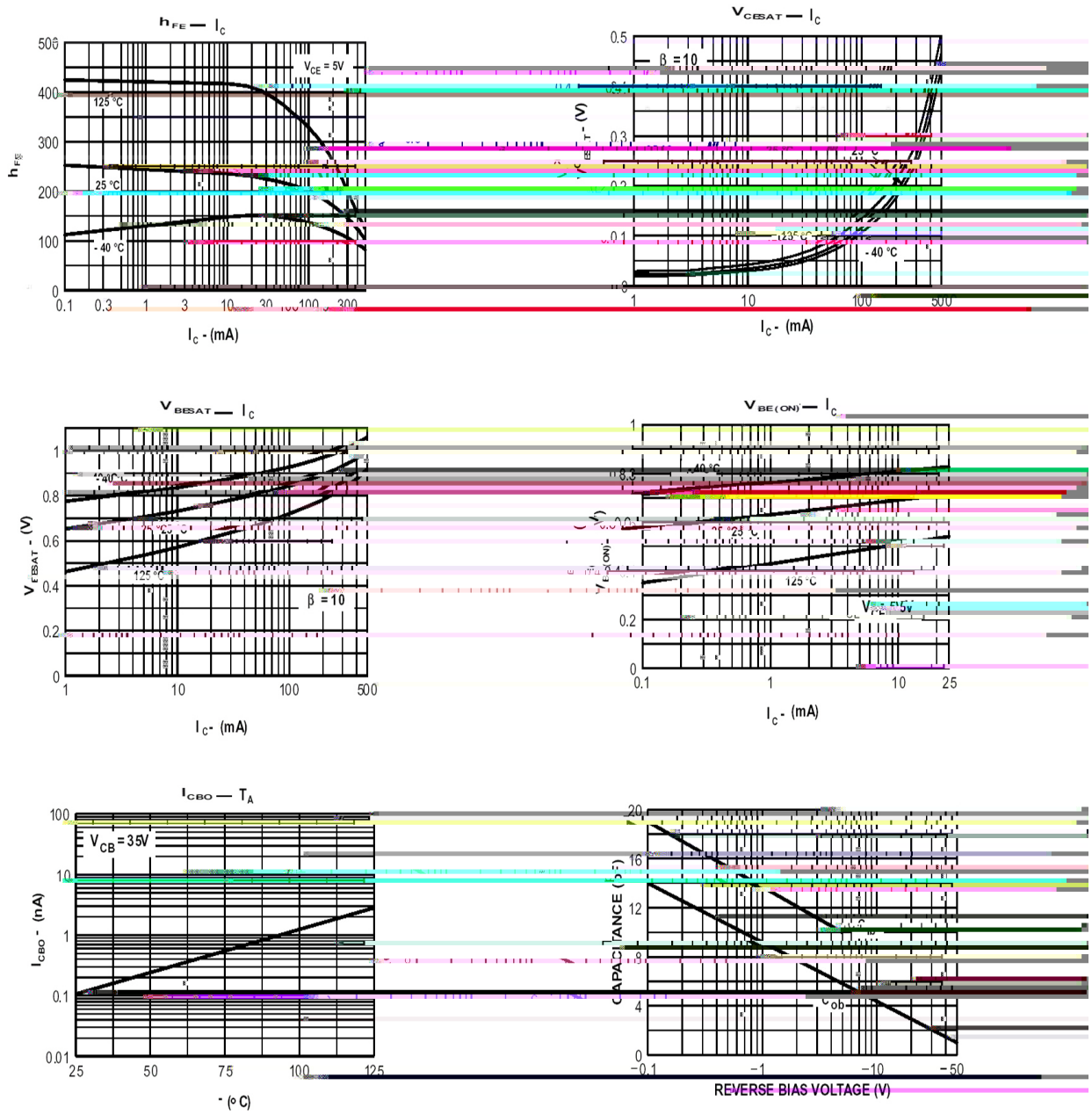


DATA SHEET

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	-60	V
Collector to Emitter Voltage	$V_{CEO}$	-60	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current - Continuous	$I_C$	-600	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 to Base Breakdown Voltage	$V_{CBO}$	$I_C = -10\mu A$ $I_E = 0$	-60			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C = -10mA$ $I_B = 0$	-60			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E = -10\mu A$ $I_C = 0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB} = -50V$ $I_E = 0$			-0.01	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -10V$ $I_C = -150mA^*$	100		300	
	$h_{FE(2)}$	$V_{CE} = -10V$ $I_C = -500mA^*$	50			
	$h_{FE(3)}$	$V_{CE} = -10V$ $I_C = -10mA$	100			
	$h_{FE(4)}$	$V_{CE} = -10V$ $I_C = -1.0mA$	100			
	$h_{FE(5)}$	$V_{CE} = -10V$ $I_C = -0.1mA$	75			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C = -150mA$ $I_B = -15mA$			-0.4	V
	$V_{CE(sat)(2)}$	$I_C = -500mA$ $I_B = -50mA$			-1.6	V
Emitter to Base Saturation Voltage	$V_{BE(sat)(1)}$	$I_C = -150mA$ $I_B = -15mA$			-1.3	V
	$V_{BE(sat)(2)}$	$I_C = -500mA$ $I_B = -50mA$			-2.6	V
Transition Frequency	$f_T$	$V_{CE} = -20V$ $I_C = -50mA$ $f = 100MHz$	200			MHz

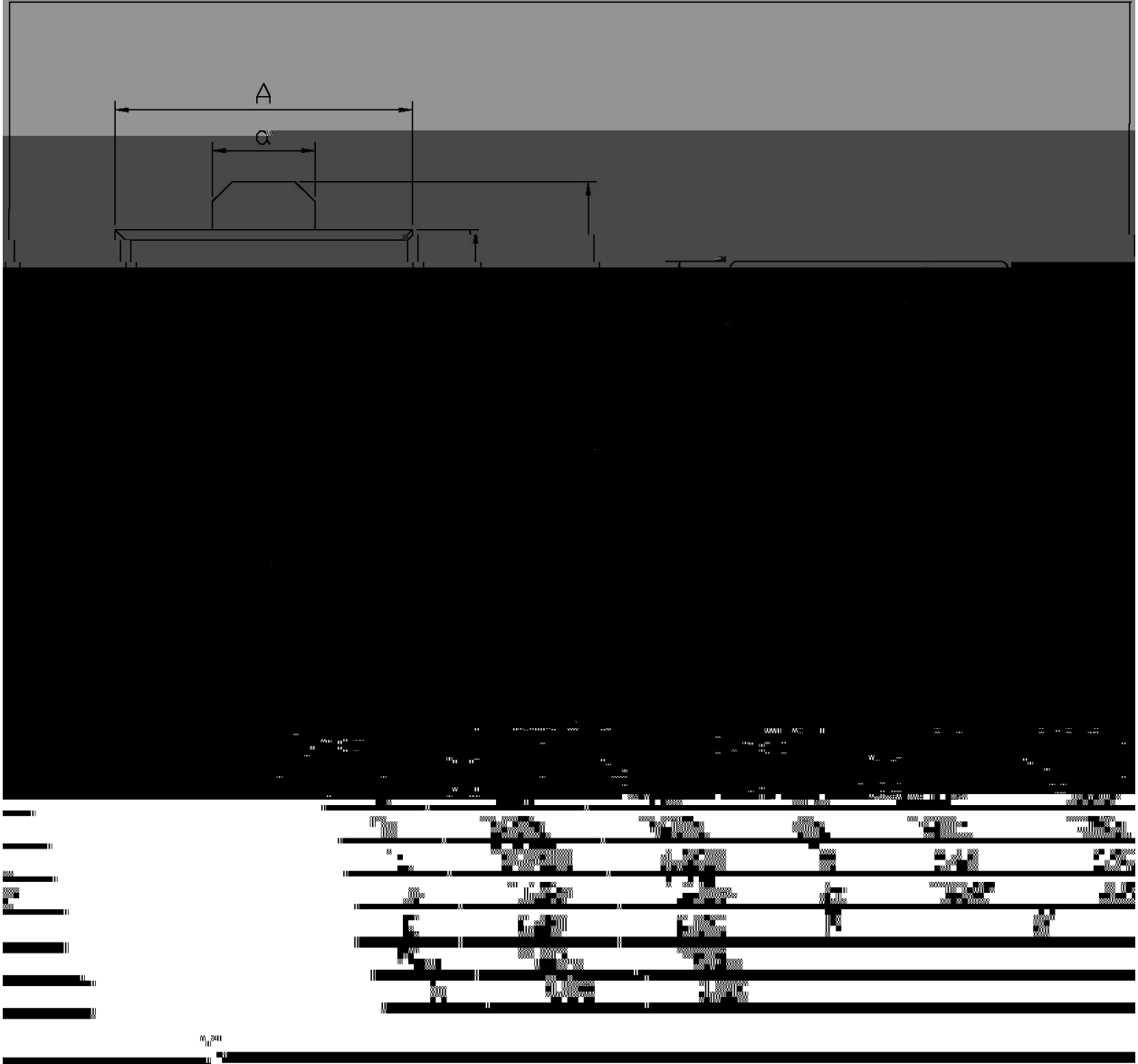
/ Electrical Characteristic Curve



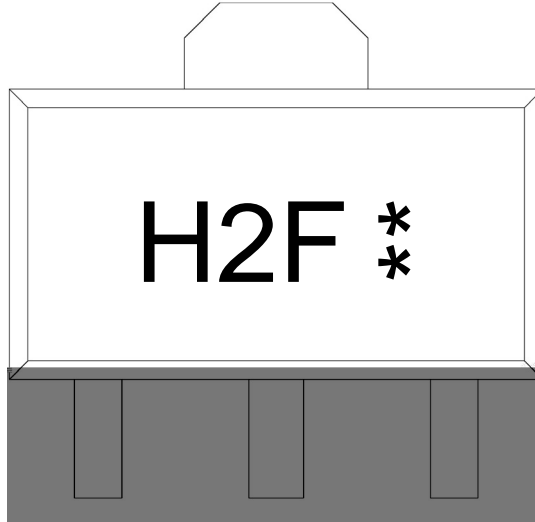
/ Package Dimensions

SOT-89

单位: mm



/ Marking Instructions



H

2F

\*\*

Note:

H: Company Code

2F: Product Type Code

\*\* : 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.            |

/ 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> )
--------------	-------	-----------	-------------------------