CHINA BASE INTERNATIONAL

# SOT-323

# SS8550W

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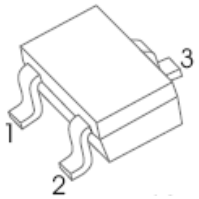
## TRANSISTOR（PNP）

**FEATURES**

Complimentary to SS8050W

**MARKING: Y2**

**SOT－323**




1. BASE
2. EMITTER
3. COLLECTOR

## MAXIMUM RATINGS ($T_A$=25℃ unless otherwise noted)

| Symbol | Parameter | Value | Units |
|---|---|---|---|
| $V_{CBO}$ | Collector-Base Voltage | -40 | V |
| $V_{CEO}$ | Collector-Emitter Voltage | -25 | V |
| $V_{EBO}$ | Emitter-Base Voltage | -5 | V |
| $I_C$ | Collector Current -Continuous | -1.5 | A |
| $P_C$ | Collector Power Dissipation | 0.2 | W |
| $T_j$ | Junction Temperature | 150 | ℃ |
| $T_{stg}$ | Storage Temperature | -55-150 | ℃ |

## ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | MAX | UNIT |
|---|---|---|---|---|---|
| **Collector-base breakdown voltage** | $V_{(BR)CBO}$ | $I_C$=-100μA, $I_E$=0 | -40 | | V |
| **Collector-emitter breakdown voltage** | $V_{(BR)CEO}$ | $I_C$=-0.1mA, $I_B$=0 | -25 | | V |
| **Emitter-base breakdown voltage** | $V_{(BR)EBO}$ | $I_E$=-100μA, $I_C$=0 | -5 | | V |
| **Collector cut-off current** | $I_{CBO}$ | $V_{CB}$=-40V, $I_E$=0 | | -0.1 | μA |
| **Collector cut-off current** | $I_{CEO}$ | $V_{CE}$=-20V, $I_B$=0 | | -0.1 | μA |
| **Emitter cut-off current** | $I_{EBO}$ | $V_{EB}$=-5V, $I_C$=0 | | -0.1 | μA |
| **DC current gain** | $h_{FE(1)}$ | $V_{CE}$=-1V, $I_C$=-100mA | 120 | 400 | |
| | $h_{FE(2)}$ | $V_{CE}$=-1V, $I_C$=-800mA | 40 | | |
| **Collector-emitter saturation voltage** | $V_{CE(sat)}$ | $I_C$=-800mA, $I_B$=-80mA | | -0.5 | V |
| **Base-emitter saturation voltage** | $V_{BE(sat)}$ | $I_C$=-800mA, $I_B$=-80mA | | -1.2 | V |
| **Base-emitter on voltage** | $V_{BE(on)}$ | $I_C$=-1V, $V_{CE}$=-10mA | | -1 | V |
| **Base-emitter positive favor voltage** | $V_{BEF}$ | $I_B$=-1A | | -1.55 | V |
| **Transition frequency** | $f_T$ | $V_{CE}$= -10V, $I_C$= -50mA f=30MHz | 100 | | MHz |
| **output capacitance** | $C_{ob}$ | ($V_{CB}$=-10V,$I_E$=0,f=1MHz) | | 20 | pF |

## CLASSIFICATION OF $h_{FE(1)}$

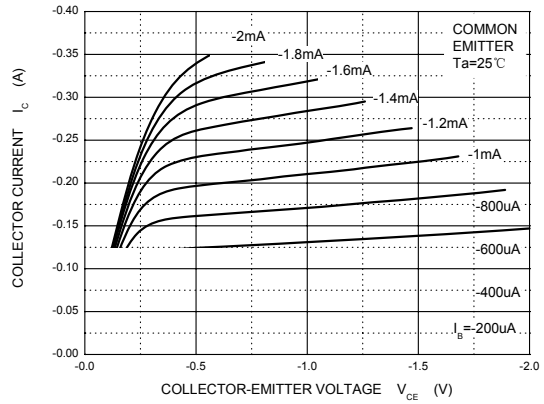
| RANK | L | H | J |
|---|---|---|---|
| RANGE | 120－200 | 200－350 | 300－400 |



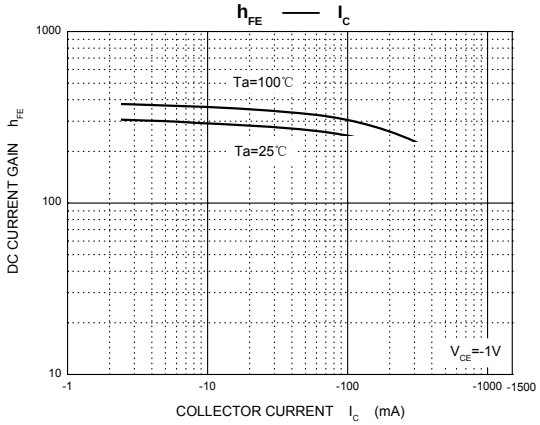
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## Typical Characteristics

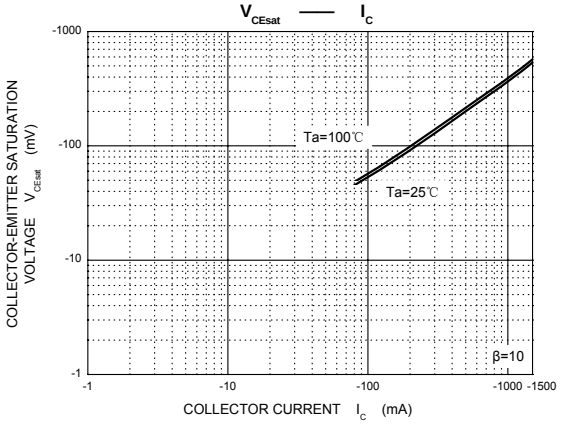
Static Characteristic



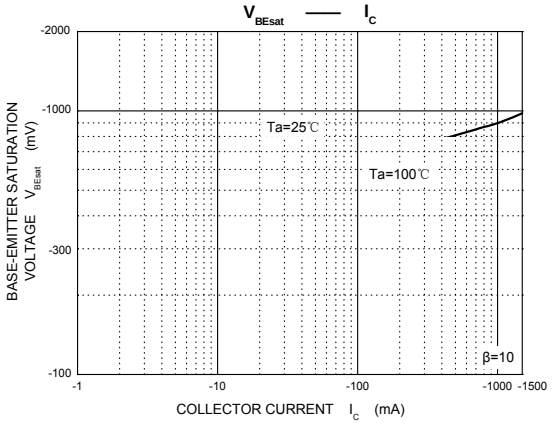

$h_{FE}$ —— $I_C$



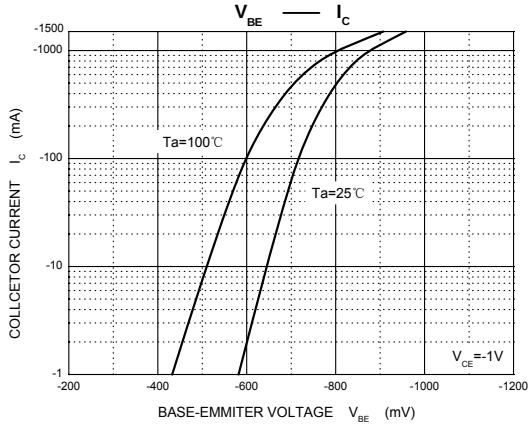

$V_{CEsat}$ —— $I_C$



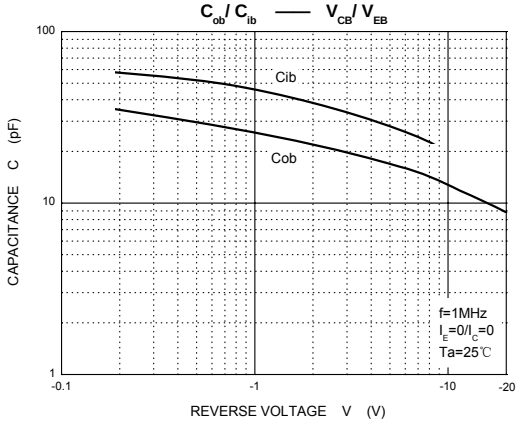

$V_{BEsat}$ —— $I_C$



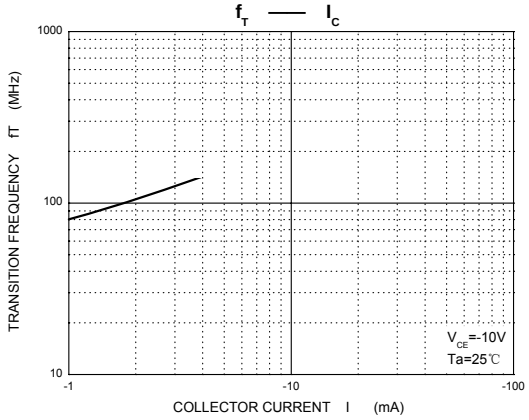

$V_{BE}$ —— $I_C$



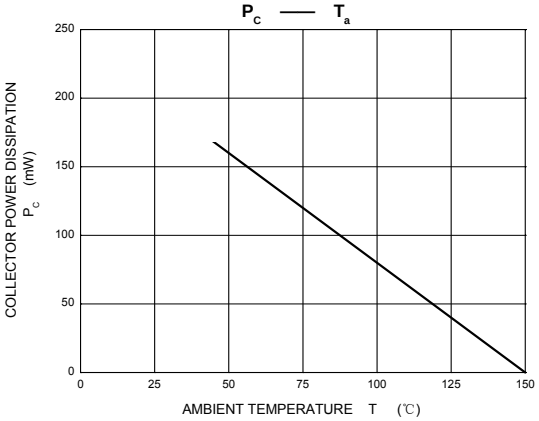

$C_{ob}$ / $C_{ib}$ —— $V_{CB}$ / $V_{EB}$




$f_T$ —— $I_C$




$P_C$ —— $T_a$






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