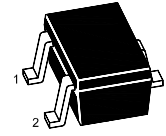


MMBT8550W

PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications



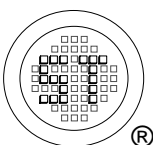
1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---------------------------|------------|---------------|------------------|
| Collector Emitter Voltage | $-V_{CEO}$ | 25 | V |
| Collector Base Voltage | $-V_{CBO}$ | 40 | V |
| Emitter Base Voltage | $-V_{EBO}$ | 6 | V |
| Collector Current | $-I_C$ | 600 | mA |
| Power Dissipation | P_{tot} | 200 | mW |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{Stg} | - 55 to + 150 | $^\circ\text{C}$ |

Characteristics at $T_a = 25^\circ\text{C}$

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|----------------|------|------|------|------|
| DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$ MMBT8550CW MMBT8550DW at $-V_{CE} = 1\text{ V}$, $-I_C = 500\text{ mA}$ | h_{FE} | 100 | - | 250 | - |
| | h_{FE} | 160 | - | 400 | - |
| | h_{FE} | 40 | - | - | - |
| Collector Cutoff Current at $-V_{CB} = 35\text{ V}$ | $-I_{CBO}$ | - | - | 100 | nA |
| Collector Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_E = 50\text{ mA}$ | $-V_{CE(sat)}$ | - | - | 0.5 | V |
| Base Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_E = 50\text{ mA}$ | $-V_{BE(sat)}$ | - | - | 1.2 | V |
| Collector Emitter Breakdown Voltage at $-I_C = 2\text{ mA}$ | $-V_{(BR)CEO}$ | 25 | - | - | V |
| Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$ | $-V_{(BR)CBO}$ | 40 | - | - | V |
| Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$ | $-V_{(BR)EBO}$ | 6 | - | - | V |
| Gain Bandwidth Product at $-V_{CE} = 5\text{ V}$, $-I_C = 10\text{ mA}$, $f = 50\text{ MHz}$ | f_T | - | 100 | - | MHz |
| Collector Base Capacitance at $-V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$ | C_{CBO} | - | 12 | - | pF |



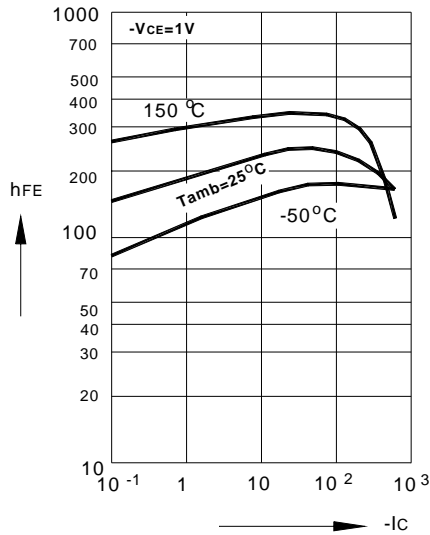
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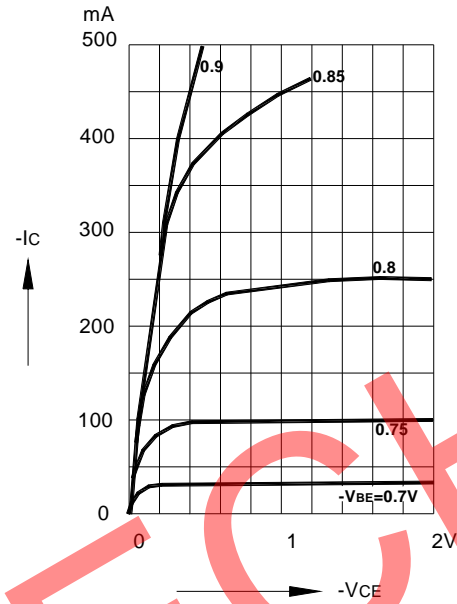
Dated : 11/08/2006

MMBT8550W

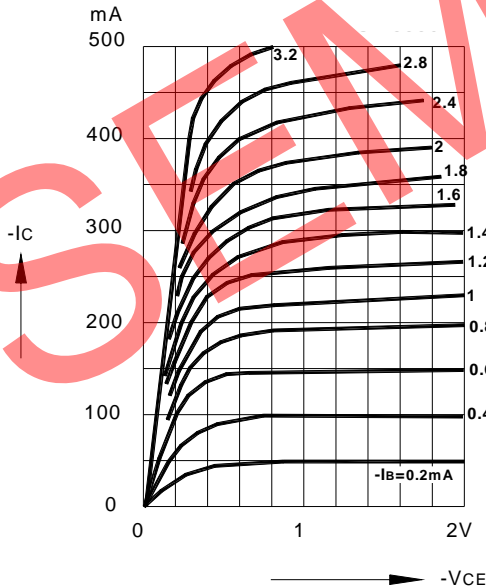
DC current gain versus collector current



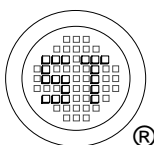
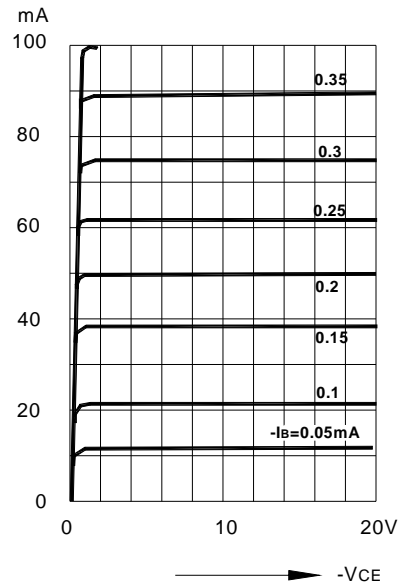
Common emitter collector characteristics



Common emitter collector characteristics



Common emitter collector characteristics



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