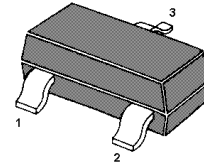


# MMBT8550 (1.5A)

## PNP Silicon Epitaxial Planar Transistor

for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

As complementary type the NPN transistor MMBT8050 (1.5A) is recommended.



1.BASE 2.EMITTER 3.COLLECTOR  
SOT-23 Plastic Package

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

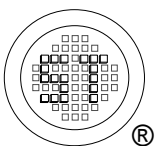
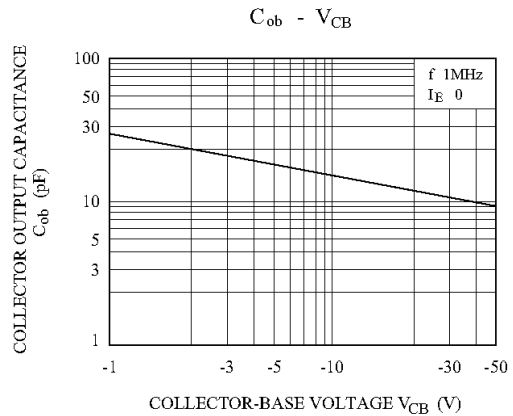
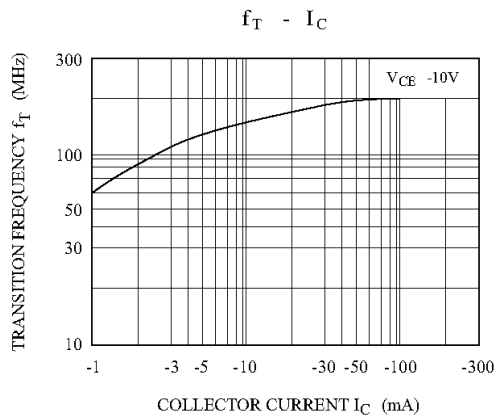
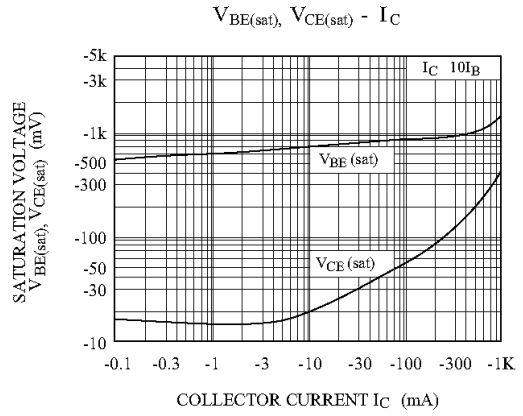
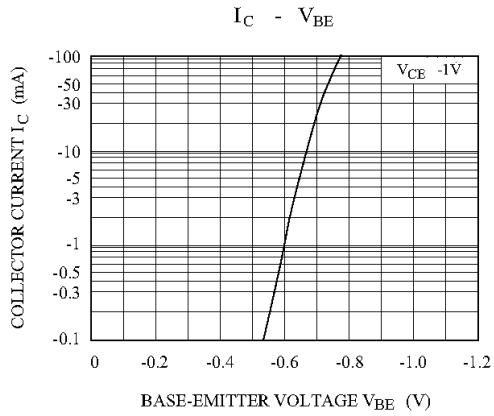
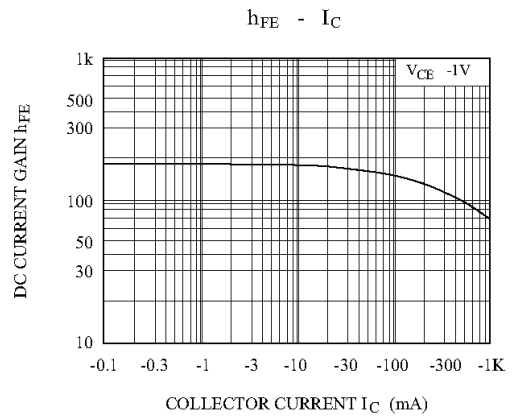
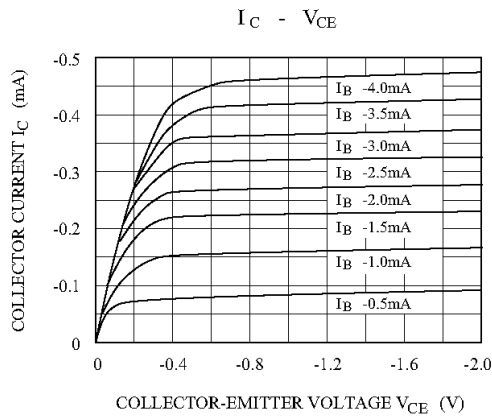
| Parameter                 | Symbol     | Value         | Unit             |
|---------------------------|------------|---------------|------------------|
| Collector Base Voltage    | $-V_{CBO}$ | 40            | V                |
| Collector Emitter Voltage | $-V_{CEO}$ | 25            | V                |
| Emitter Base Voltage      | $-V_{EBO}$ | 6             | V                |
| Collector Current         | $-I_C$     | 1.5           | A                |
| Power Dissipation         | $P_{tot}$  | 350           | mW               |
| Junction Temperature      | $T_j$      | 150           | $^\circ\text{C}$ |
| Storage Temperature Range | $T_{Stg}$  | - 55 to + 150 | $^\circ\text{C}$ |

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

| Parameter   | Symbol         | Min. | Max. | Unit |
|---|----------------|------|------|------|
| DC Current Gain<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$<br>MMBT8550C<br>MMBT8550D | $h_{FE}$       | 100  | 250  | -    |
|   | $h_{FE}$       | 160  | 400  | -    |
|   | $h_{FE}$       | 40   | -    | -    |
| Collector Base Cutoff Current<br>at $-V_{CB} = 35\text{ V}$                                     | $-I_{CBO}$     | -    | 100  | nA   |
| Emitter Base Cutoff Current<br>at $-V_{EB} = 6\text{ V}$  | $-I_{EBO}$     | -    | 100  | nA   |
| Collector Base Breakdown Voltage<br>at $-I_C = 100\text{ }\mu\text{A}$                          | $-V_{(BR)CBO}$ | 40   | -    | V    |
| Collector Emitter Breakdown Voltage<br>at $-I_C = 2\text{ mA}$                                  | $-V_{(BR)CEO}$ | 25   | -    | V    |
| Emitter Base Breakdown Voltage<br>at $-I_E = 100\text{ }\mu\text{A}$                            | $-V_{(BR)EBO}$ | 6    | -    | V    |
| Collector Emitter Saturation Voltage<br>at $-I_C = 800\text{ mA}$ , $-I_B = 80\text{ mA}$       | $-V_{CE(sat)}$ | -    | 0.5  | V    |
| Base Emitter Saturation Voltage<br>at $-I_C = 800\text{ mA}$ , $-I_B = 80\text{ mA}$            | $-V_{BE(sat)}$ | -    | 1.2  | V    |
| Base Emitter Voltage<br>at $-V_{CE} = 1\text{ V}$ , $-I_C = 10\text{ mA}$                       | $-V_{BE(on)}$  | -    | 1    | V    |
| Gain Bandwidth Product<br>at $-V_{CE} = 10\text{ V}$ , $-I_C = 50\text{ mA}$                    | $f_T$          | 120  | -    | MHz  |

**TOP DYNAMIC**

# MMBT8550 (1.5A)



**SEMTECH ELECTRONICS LTD.**  
 Subsidiary of Sino-Tech International (BVI) Limited



Dated : 11/04/2008