



**FUKUCOM COMPANY LTD.**

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

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## ST 8550

### PNP Silicon Epitaxial Planar Transistor

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

The transistor is subdivided into four groups, B, C, D and E, according to its DC current gain.



1. Emitter 2. Base 3. Collector  
TO-92 Plastic Package

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

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	$-I_C$	800	mA
Base Current	$-I_B$	100	mA
Power Dissipation	$P_{tot}$	625	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 $-V_{CE} = 1 \text{ V}$ , $-I_C = 100 \text{ mA}$	$h_{FE}$	70	-	120	-
	$h_{FE}$	120	-	200	-
	$h_{FE}$	160	-	300	-
	$h_{FE}$	300	-	380	-
at $-V_{CE} = 1 \text{ V}$ , $-I_C = 350 \text{ mA}$	$h_{FE}$	60	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 35 \text{ V}$	$-I_{CBO}$	-	-	100	nA
Collector Base Breakdown Voltage at $-I_C = 10 \mu\text{A}$	$-V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_C = 2 \text{ mA}$	$-V_{(BR)CEO}$	25	-	-	V
Emitter Base Breakdown Voltage at $-I_E = 100 \mu\text{A}$	$-V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at $-I_C = 500 \text{ mA}$ , $-I_B = 50 \text{ mA}$	$-V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_C = 500 \text{ mA}$ , $-I_B = 50 \text{ mA}$	$-V_{BE(sat)}$	-	-	1.2	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 $-V_{CB} = 10 \text{ V}$ , $f = 1 \text{ MHz}$	$C_{ob}$	-	12	-	pF



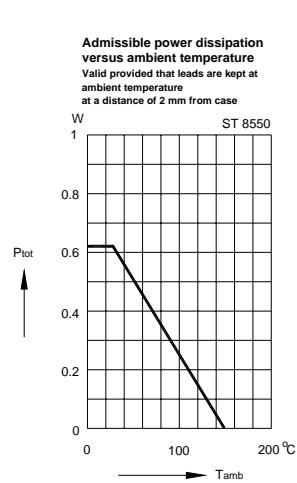


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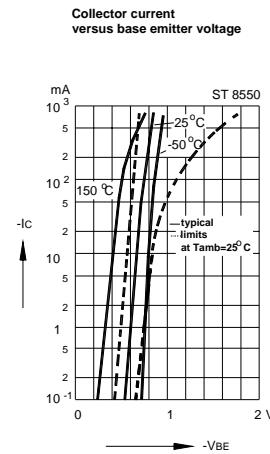
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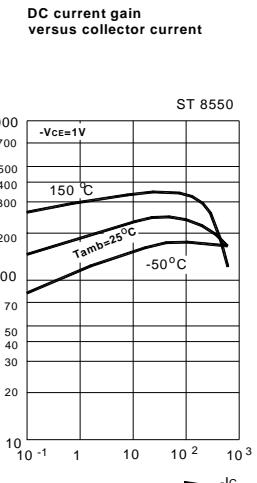
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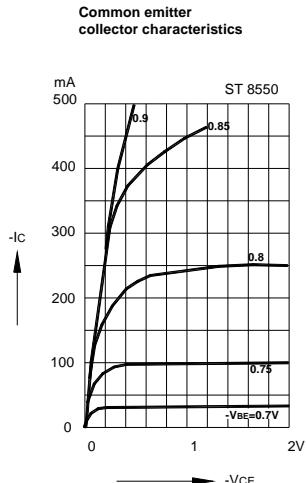
**Admissible power dissipation versus ambient temperature**  
Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



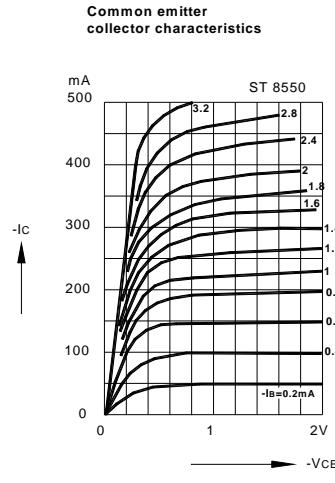
**Collector current  
versus base emitter voltage**



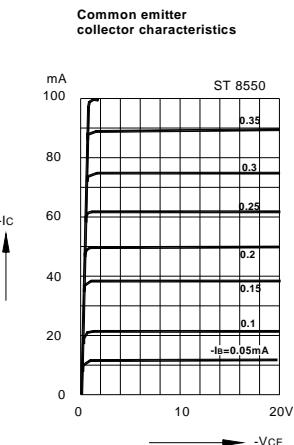
## DC current gain versus collector current



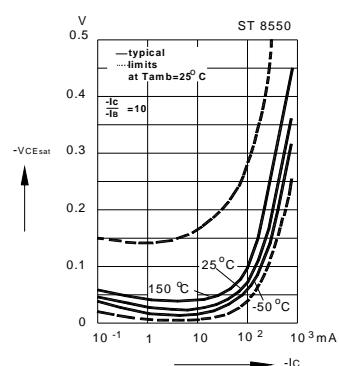
### Collector saturation voltage versus collector current



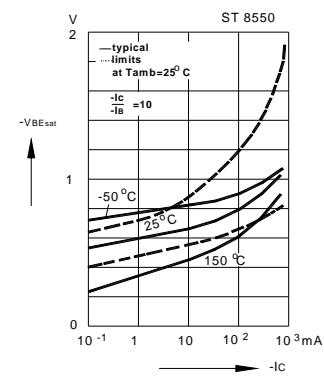
### Base saturation voltage versus collector current



CS



### Collector saturation voltage versus collector current



MHz ST 8

