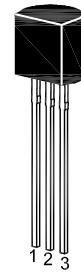


8550

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.



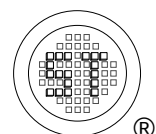
1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

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

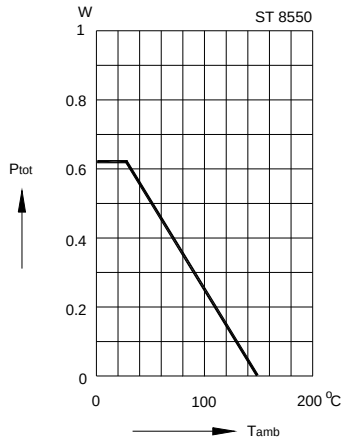
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	40	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	25	V
Emitter Base Voltage	$-V_{\text{EBO}}$	6	V
Collector Current	$-I_{\text{C}}$	800	mA
Base Current	$-I_{\text{B}}$	100	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_{j}	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

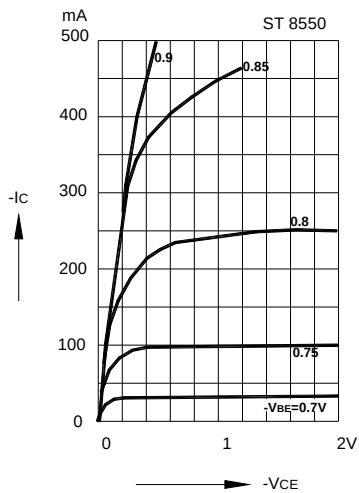
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{\text{CE}} = 1 \text{ V}$, $-I_{\text{C}} = 100 \text{ mA}$ at $-V_{\text{CE}} = 1 \text{ V}$, $-I_{\text{C}} = 350 \text{ mA}$	Current Gain Group B C D E h_{FE} h_{FE} h_{FE} h_{FE} h_{FE}	70	-	120	-
		120	-	200	-
		160	-	300	-
		300	-	380	-
		60	-	-	-
		-	-	-	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 35 \text{ V}$	$-I_{\text{CBO}}$	-	-	100	nA
Collector Base Breakdown Voltage at $-I_{\text{C}} = 10 \mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 2 \text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	25	-	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 100 \mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	6	-	-	V
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 500 \text{ mA}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{CE(sat)}}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_{\text{C}} = 500 \text{ mA}$, $-I_{\text{B}} = 50 \text{ mA}$	$-V_{\text{BE(sat)}}$	-	-	1.2	V
Gain Bandwidth Product at $-V_{\text{CE}} = 5 \text{ V}$, $-I_{\text{C}} = 10 \text{ mA}$, $f = 50 \text{ MHz}$	f_{T}	-	100	-	MHz
Collector Base Capacitance at $-V_{\text{CB}} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	12	-	pF



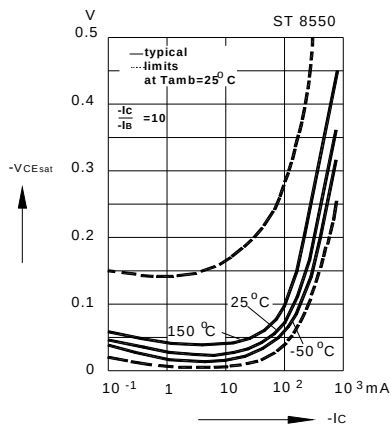
Admissible power dissipation versus ambient temperature
Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



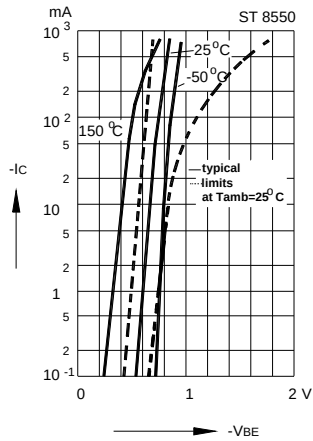
Common emitter collector characteristics



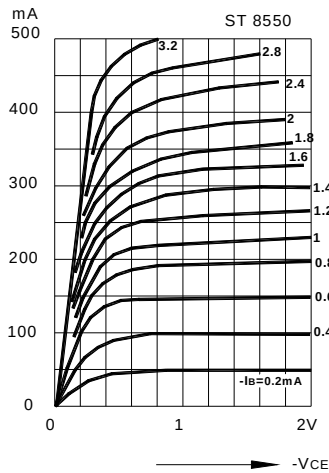
Collector saturation voltage versus collector current



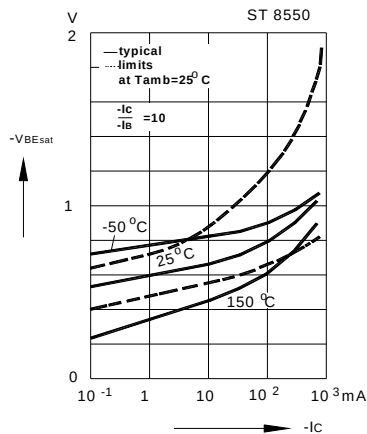
Collector current versus base emitter voltage



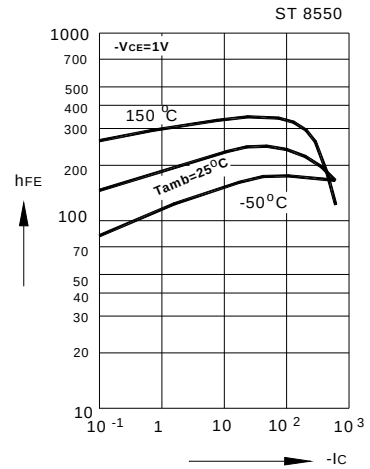
Common emitter collector characteristics



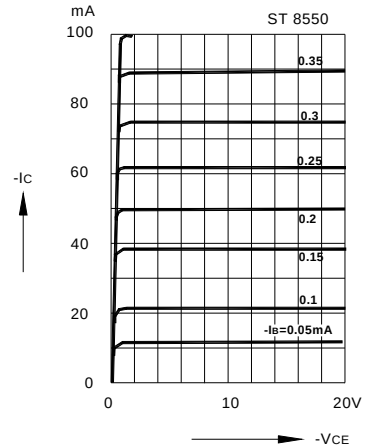
Base saturation voltage versus collector current



DC current gain versus collector current



Common emitter collector characteristics



ST 8550

