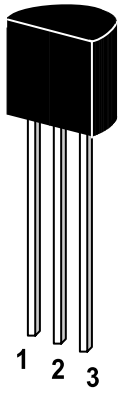
ST 8550

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. As complementary type the NPN transistor ST 8050 is recommended.

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Base 3. Collector

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25℃)

	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	$-I_C$	800	mA
Peak Collector Current	$-I_{CM}$	1	A
Base Current	$-I_B$	100	mA
Power Dissipation	P_{tot}	625[1)]	mW
Junction Temperature	T_j	150	^OC
Storage Temperature Range	T_S	-55 to +150	^OC

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

Characteristics at T_{amb}=25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at $-V_{CE}$=1V, $-I_C$=100mA	ST 8550B	h_{FE}	70	-	120	-
	ST 8550C	h_{FE}	120	-	200	-
	ST 8550D	h_{FE}	160	-	300	-
	ST 8550E	h_{FE}	300	-	380	-
at $-V_{CE}$=1V, $-I_C$=350mA		h_{FE}	60	-	-	-
Collector Cutoff Current at $-V_{CB}$=35V		I_{CBO}	-	-	100	nA
Collector Saturation Voltage at $-I_C$=500mA, $-I_B$=50mA		$V_{CE(sat)}$	-	-	0.5	V
Base Saturation Voltage at $-I_C$=500mA, $-I_B$=50mA		$V_{BE(sat)}$	-	-	1.2	V
Collector Emitter Breakdown Voltage at $-I_C$=2mA		$V_{(BR)CEO}$	25	-	-	V
Collector Base Breakdown Voltage at $-I_C$=10μA		$V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage at $-I_E$=100μA		$V_{(BR)EBO}$	6	-	-	V
Gain Bandwidth Product at $-V_{CE}$=5V, $-I_C$=10mA, f=50MHz		f_T	-	100	-	MHz
Collector Base Capacitance at $-V_{CB}$=10V, f=1MHz		C_{CBO}	-	12	-	pF
Thermal Resistance Junction to Ambient		R_{thA}	-	-	200[1)]	K/W

[1)] Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case

Admissible power dissipation versus ambient temperature

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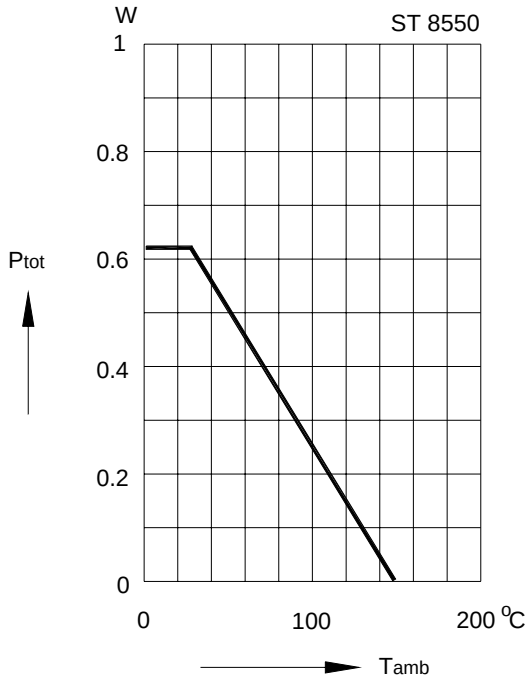
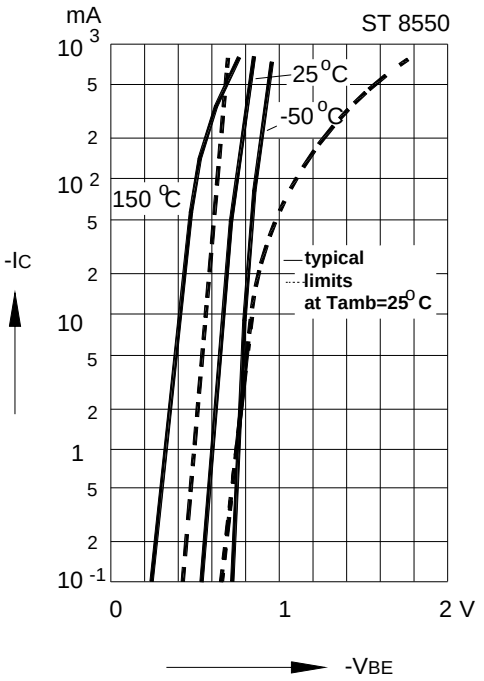


Collector current versus base emitter voltage



Pulse thermal resistance versus pulse duration

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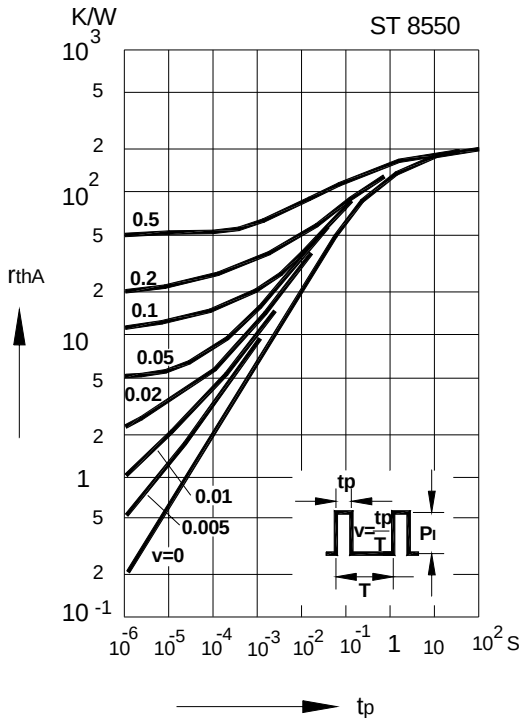
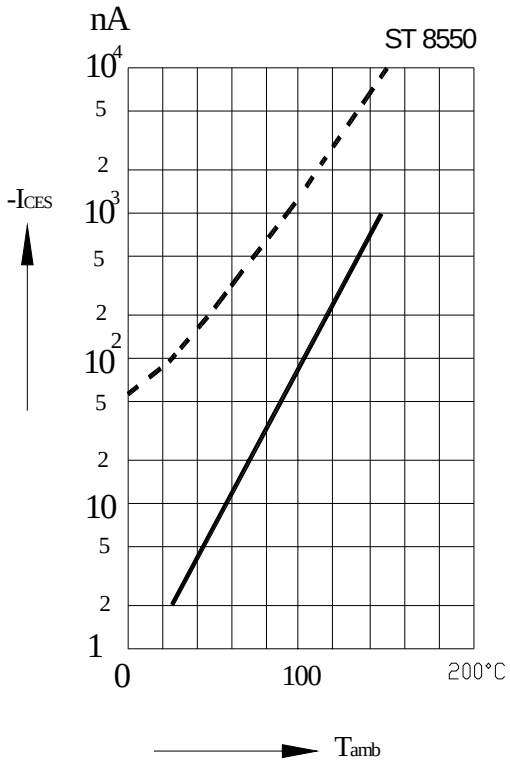
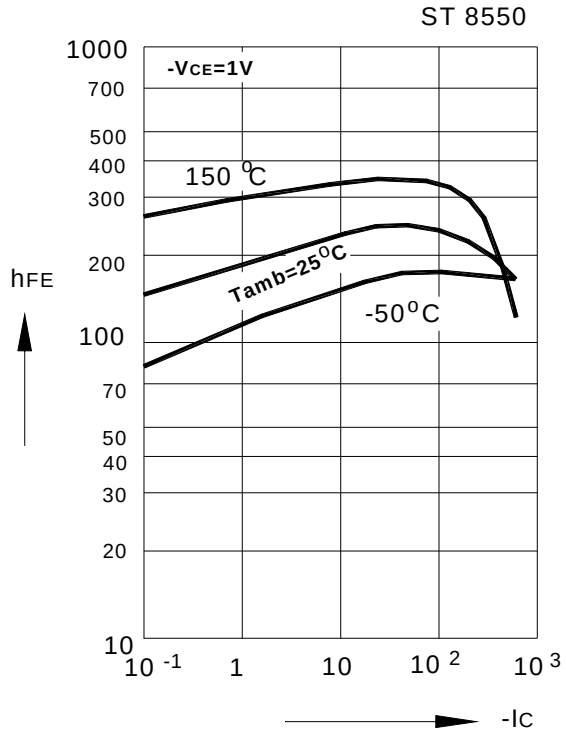


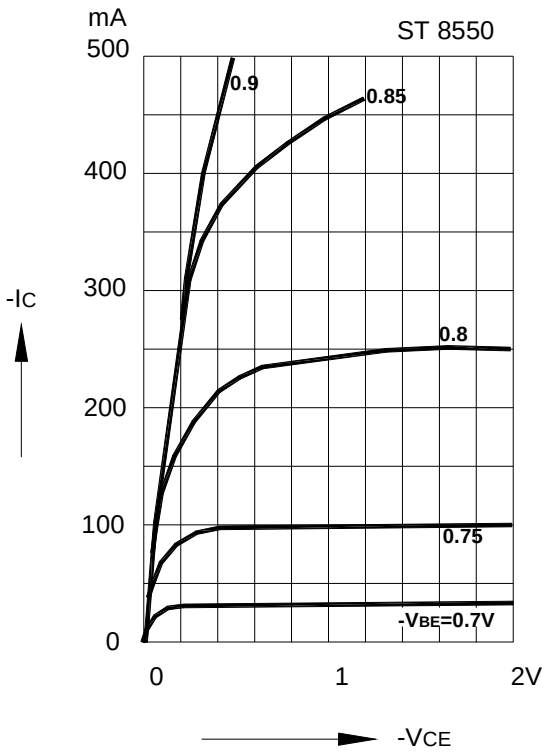
Collector cutoff current versus ambient temperature



DC current gain versus collector current



Common emitter collector characteristics



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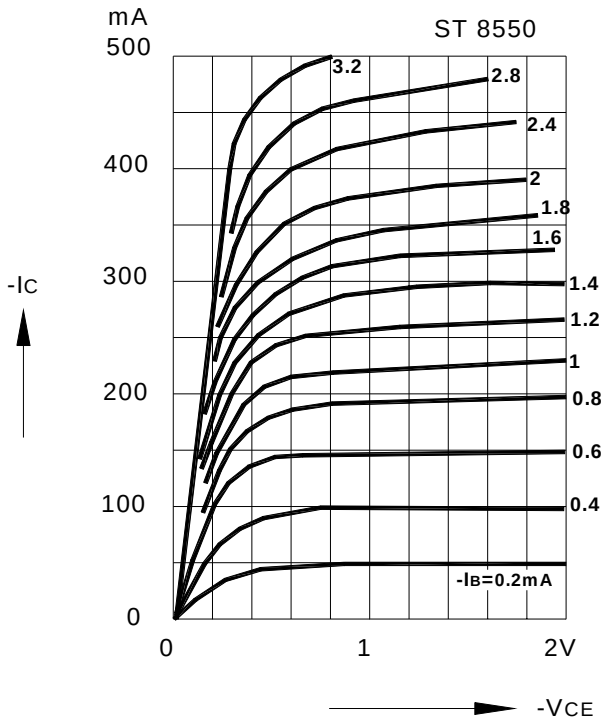
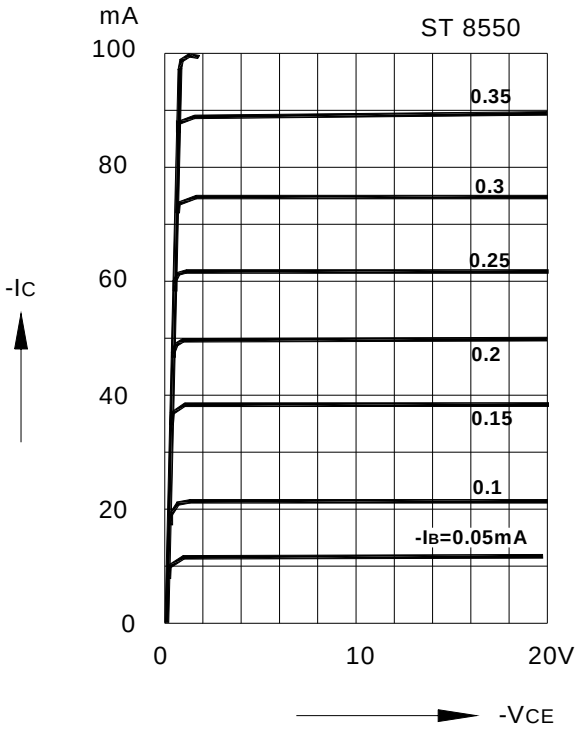
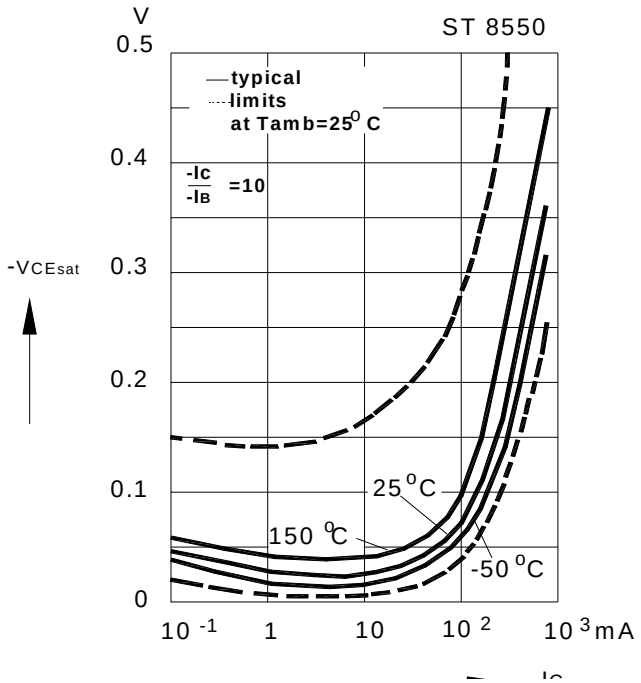


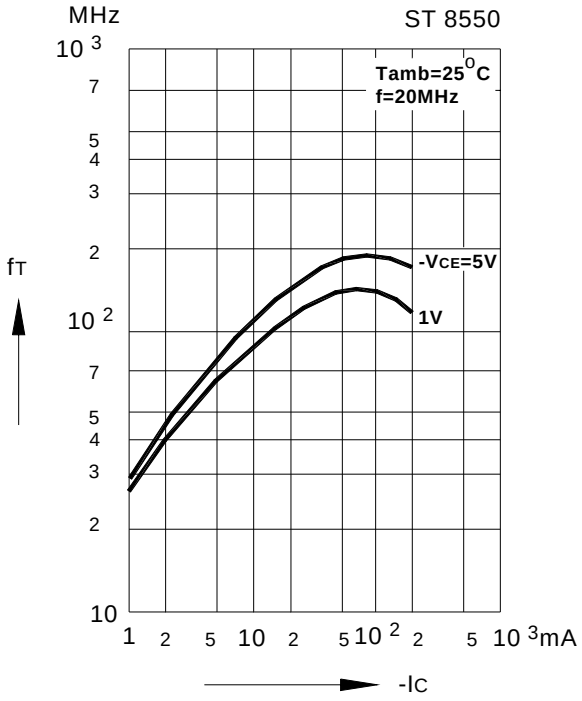
Common emitter collector characteristics



Collector saturation voltage versus collector current



Gain bandwidth product versus collector current



Base saturation voltage versus collector current