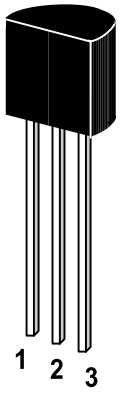
ST 8050 (1.5A)

NPN 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 two groups, C and D, according to its DC current gain. As complementary type the PNP transistor ST 8550 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 ($T_a = 25^oC$)

	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	1	A
Peak Collector Current	I_{CM}	1.5	A
Base Current	I_B	100	mA
Power Dissipation	P_{tot}	1	W
Junction Temperature	T_j	150	^oC
Storage Temperature Range	T_S	-55 to +150	^oC

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Characteristics at T_{amb}=25 ^{O}C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain						
at V_{CE}=1V, I_C=5mA		h_{FE}	45	170	-	
at V_{CE}=1V, I_C=100mA	8050C	h_{FE}	120	-	200	-
	8050D	h_{FE}	160	-	300	-
at V_{CE}=1V, I_C=800mA		h_{FE}	40	80	-	
Collector Cutoff Current						
at V_{CB}=35V		I_{CBO}	-	-	100	nA
Emitter Cutoff Current						
at V_{BE}=6V		I_{EBO}	-	-	100	nA
Collector Saturation Voltage						
at I_C=800mA, I_B=80mA		$V_{CE(sat)}$	-	0.28	0.5	V
Base Saturation Voltage						
at I_C=800mA, I_B=80mA		$V_{BE(sat)}$	-	0.98	1.2	V
Collector Emitter Breakdown Voltage						
at I_C=2mA		$V_{(BR)CEO}$	25	-	-	V
Collector Base Breakdown Voltage						
at I_C=100μA		$V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage						
at I_E=100μA		$V_{(BR)EBO}$	6	-	-	V
Base Emitter Voltage						
at I_C=10mA, V_{CE}=1V		V_{BE}	-	0.66	1	V
Gain Bandwidth Product						
at V_{CE}=10V, I_C=50mA		f_T	120	200	-	MHz
Collector Base Capacitance						
at V_{CB}=10V, f=1MHz		C_{OB}	-	15	-	pF

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