

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.

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



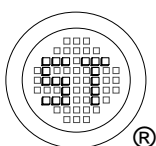
1. Emitter 2. Base 3. Collector
TO-92 Plastic Package
Weight approx. 0.19g

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

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}	1	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

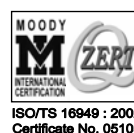
Characteristics at $T_a = 25\text{ }^\circ\text{C}$

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



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



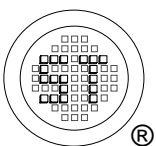
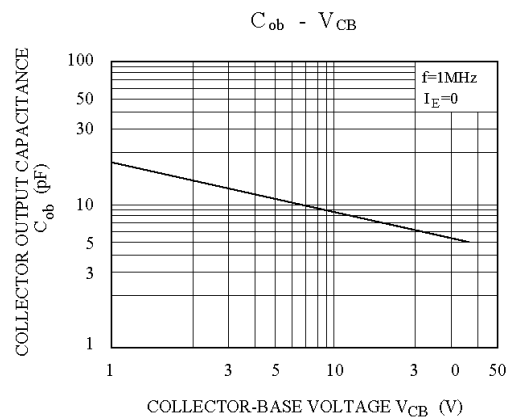
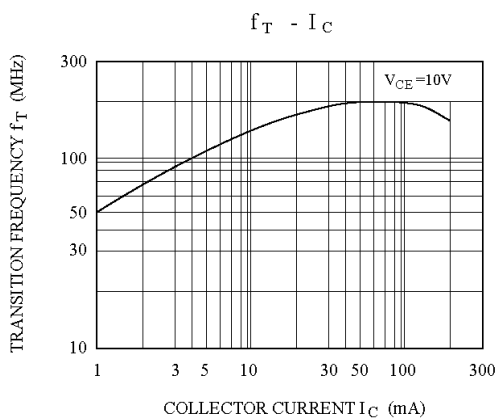
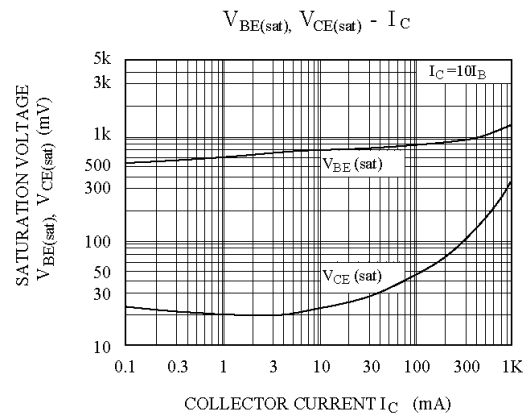
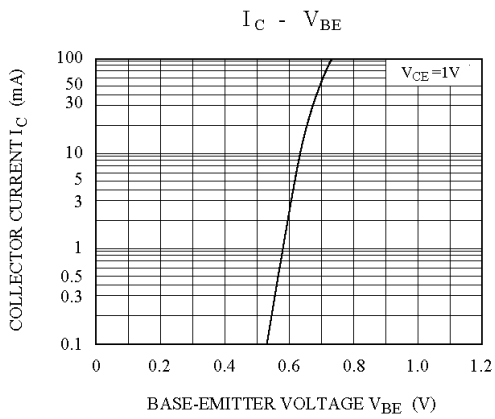
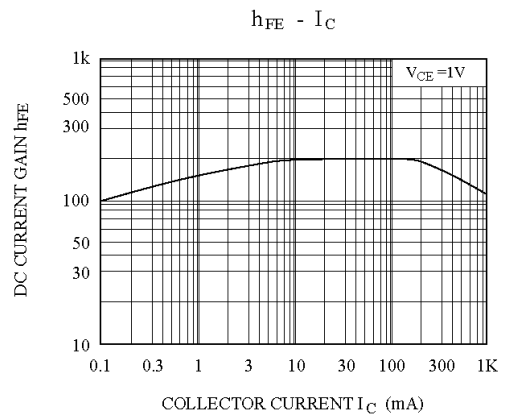
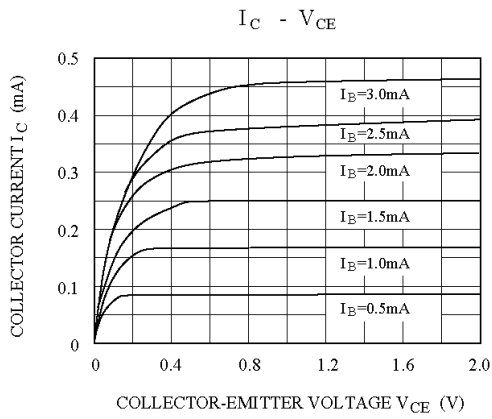
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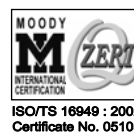
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Dated : 13/03/2007

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