

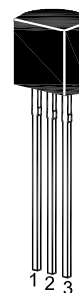
ST 2SA683 / 2SA684

PNP Silicon Epitaxial Planar Transistor

for low frequency power amplification and driver amplification

The transistor is subdivided into three group, Q, R and S according to its DC current gain.

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



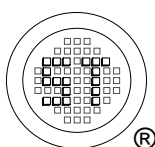
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30 50	V
Collector Emitter Voltage	$-V_{CEO}$	25 40	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	1	A
Peak Collector Current	$-I_{CP}$	1.5	A
Collector Power Dissipation	P_C	1	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

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

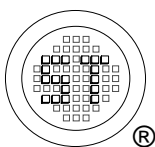
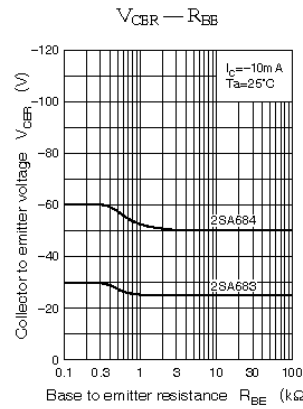
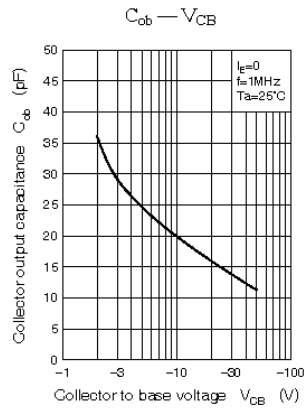
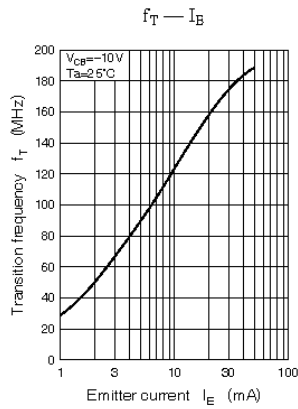
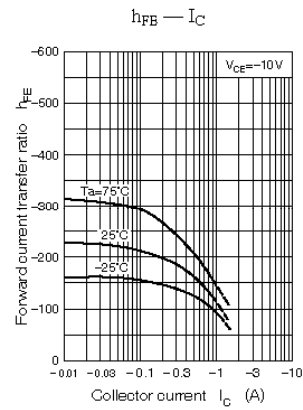
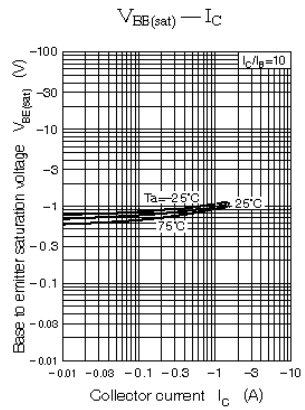
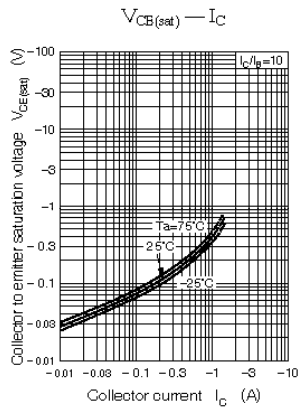
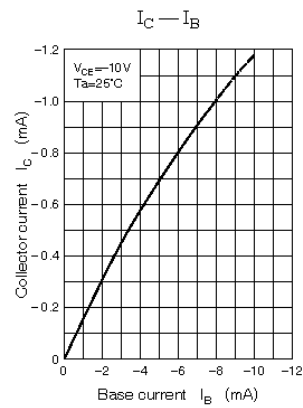
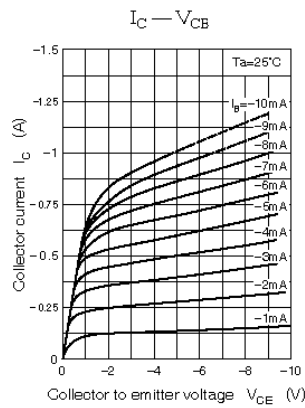
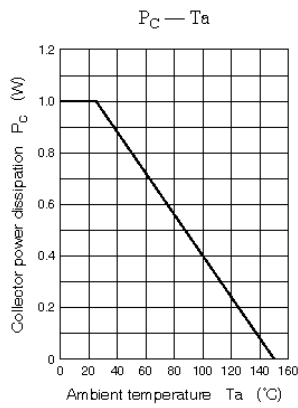
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 10\text{ V}$, $-I_C = 500\text{ mA}$	Current Gain Group Q R S h_{FE}	85	-	170	-
		120	-	240	-
		170	-	340	-
at $-V_{CE} = 5\text{ V}$, $-I_C = 1\text{ A}$		50	-	-	-
Collector Cutoff Current at $-V_{CB} = 20\text{ V}$	$-I_{CBO}$	-	-	0.1	μA
Collector Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	30 50	-	-	V
Collector Emitter Breakdown Voltage at $-I_C = 2\text{ mA}$	$-V_{(BR)CEO}$	25 40	-	-	V
Emitter Base Breakdown Voltage at $-I_C = 10\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$	$-V_{CEsat}$	-	-	0.4	V
Base Emitter Saturation Voltage at $-I_C = 500\text{ mA}$, $-I_B = 50\text{ mA}$	$-V_{BEsat}$	-	-	1.2	V
Transition Frequency at $-V_{CB} = 10\text{ V}$, $I_E = 50\text{ mA}$, $f = 200\text{ MHz}$	f_T	-	200	-	MHz
Collector Output Capacitance at $-V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	C_{ob}	-	-	30	pF



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