

2SA1585

PNP Silicon Epitaxial Planar Transistor

The transistor is subdivided into two groups, Q and R, according to its DC current gain.

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



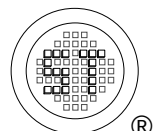
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{\text{CBO}}$	20	V
Collector Emitter Voltage	$-V_{\text{CEO}}$	20	V
Emitter Base Voltage	$-V_{\text{EBO}}$	6	V
Collector Current	$-I_{\text{C}}$	2	A
Peak Collector Current ($P_{\text{W}} = 10 \text{ ms}$)	$-I_{\text{CP}}$	5	A
Power Dissipation	P_{tot}	400	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 $-V_{\text{CE}} = 2 \text{ V}$, $-I_{\text{C}} = 100 \text{ mA}$ Current Gain Group Q R	h_{FE}	120	-	270	-
	h_{FE}	180	-	390	-
Collector Base Cutoff Current at $-V_{\text{CB}} = 20 \text{ V}$	$-I_{\text{CBO}}$	-	-	100	nA
Emitter Base Cutoff Current at $-V_{\text{EB}} = 5 \text{ V}$	$-I_{\text{EBO}}$	-	-	100	nA
Collector Base Breakdown Voltage at $-I_{\text{C}} = 50 \mu\text{A}$	$-V_{(\text{BR})\text{CBO}}$	20	-	-	V
Collector Emitter Breakdown Voltage at $-I_{\text{C}} = 1 \text{ mA}$	$-V_{(\text{BR})\text{CEO}}$	20	-	-	V
Emitter Base Breakdown Voltage at $-I_{\text{E}} = 50 \mu\text{A}$	$-V_{(\text{BR})\text{EBO}}$	6	-	-	V
Collector Emitter Saturation Voltage at $-I_{\text{C}} = 2 \text{ A}$, $-I_{\text{B}} = 0.1 \text{ A}$	$-V_{\text{CE(sat)}}$	-	-	0.5	V
Transition Frequency at $-V_{\text{CE}} = 2 \text{ V}$, $I_{\text{E}} = 500 \text{ mA}$, $f = 100 \text{ MHz}$	f_{T}	-	240	-	MHz
Output Capacitance at $-V_{\text{CB}} = 10 \text{ V}$, $f = 1 \text{ MHz}$	C_{ob}	-	35	-	pF



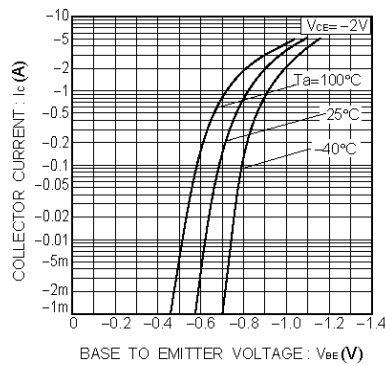


Fig.1 Grounded emitter propagation characteristics

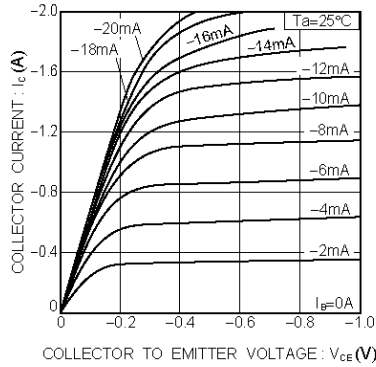


Fig.2 Grounded emitter output characteristics (I)

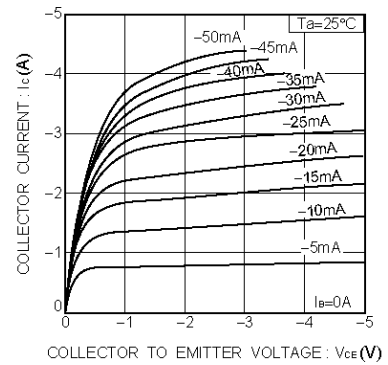


Fig.3 Grounded emitter output characteristics (II)

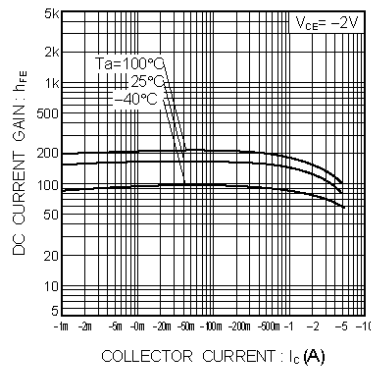


Fig.4 DC current gain vs. collector current

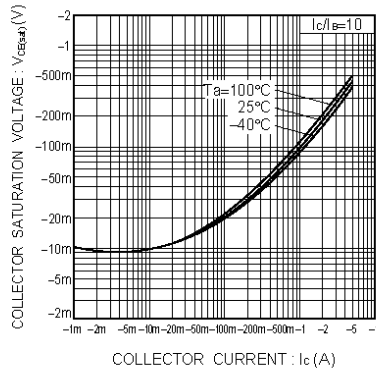


Fig.5 Collector-emitter saturation voltage vs. collector current (I)

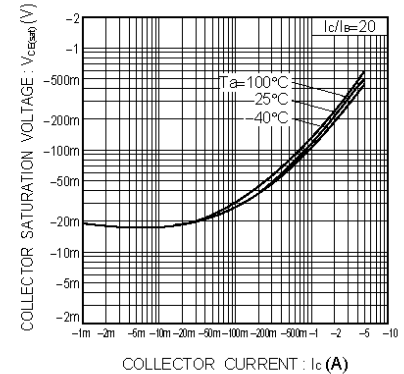


Fig.6 Collector-emitter saturation voltage vs. collector current (II)

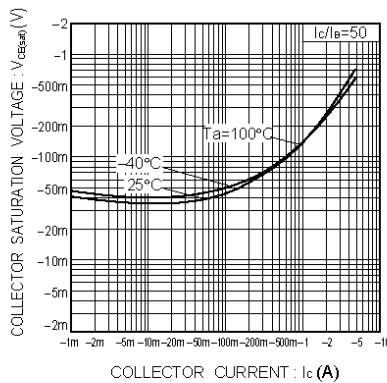


Fig.7 Collector-emitter saturation voltage vs. collector current (III)

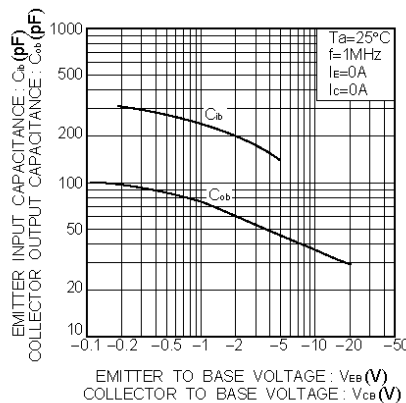


Fig.8 Gain bandwidth product vs. emitter current
Collector output capacitance vs. collector-base voltage

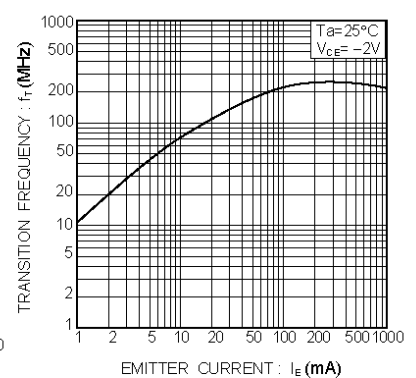


Fig.9 Emitter input capacitance vs. emitter base voltage

