

Silicon PNP transistor epitaxial type
A5920

[Applications]

Muting and switching with high h_{FE} & low $V_{CE(sat)}$
 Low frequency signal amplifire with less power consumption

[Feature]

High level collector current $I_C = -500\text{mA}$
 High level DC current gain $h_{FE} = 270 \sim 680$
 Low collector saturation voltage $V_{CE(sat)} = -0.1\text{V(Typ.)}$ at $I_C = -200\text{mA}$, $I_B = -10\text{mA}$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-15	V
Collector-emitter voltage	VCEO	-12	V
Emitter-base voltage	VEBO	-6	V
Collector current	I_C	-500	mA
Junction temperature	T_j	150	C
Storage temperature	T_{stg}	-55 to 150	C

[Electrical characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	-15	-	-	V	$I_C = -10\mu\text{A}$, $I_E = 0\text{A}$
Collector-emitter breakdown voltage	BVCEO	-12	-	-	V	$I_C = -1\text{mA}$, $I_B = 0\text{A}$
Emitter-base breakdown voltage	BVEBO	-6	-	-	V	$I_E = -10\mu\text{A}$, $I_C = 0\text{A}$
Collector cut-off current	I_{CBO}	-	-	-0.1	μA	$V_{CB} = -15\text{V}$, $I_E = 0\text{A}$
Emitter cut-off current	I_{EBO}	-	-	-0.1	μA	$V_{EB} = -6\text{V}$, $I_E = 0\text{A}$
DC current gain	h_{FE}	270	-	680	-	$V_{CE} = -2\text{V}$, $I_C = -10\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-0.1	-0.25	V	$I_C = -200\text{mA}$, $I_B = -10\text{mA}$
Transition frequency	f_T	-	260	-	MHz	$V_{CE} = -2\text{V}$, $I_E = 10\text{mA}$
Collector output capacitance	C_{ob}	-	6.5	-	pF	$V_{CB} = -10\text{V}$, $f = 1\text{MHz}$, $I_E = 0\text{A}$

Notice 1) These are measured data of transistors assembled by PHENITEC SEMICONDUCTOR Corp. and are for reference only.

Notice 2) The contents described herein are subject to change without notice.

Fig.1 VBE(on) - IC
at VCE= -2V, Ta= 25C

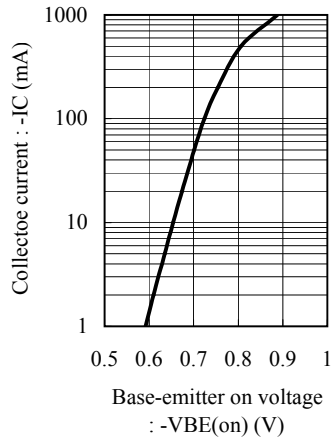


Fig.2 hFE - IC
at VCE= -2V, Ta= 25C

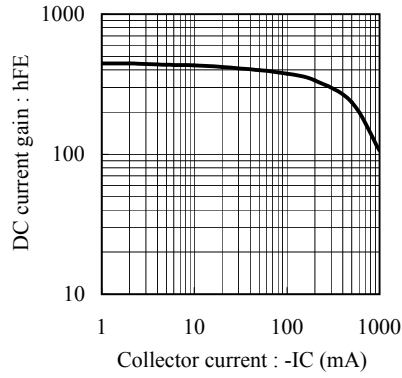


Fig.3 VCE(sat) - IC
at IC/IB= 20, Ta= 25C

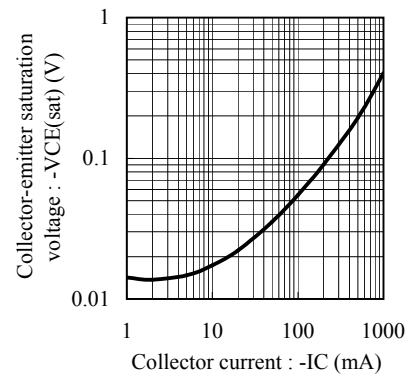


Fig.4 VBE(sat) - IC
at IC/IB= 20, Ta= 25C

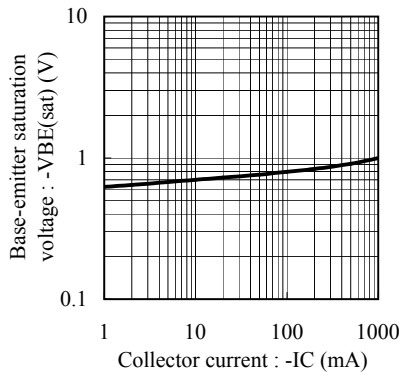


Fig.5 fT - IE
at VCE= -2V, Ta= 25C

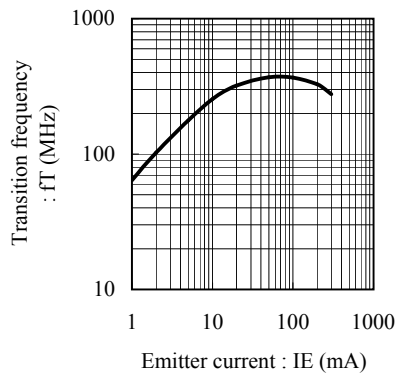


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

