

Silicon NPN transistor epitaxial type C5951

[Applications]

Low frequency power amplifier

[Feature]

Complementary pair with A5951

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	180	V
Collector-emitter voltage	VCEO	160	V
Emitter-base voltage	VEBO	5	V
Collector current	IC	1.5	A
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

[Electrical characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	180	-	-	V	IC= 1mA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	160	-	-	V	IC= 10mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	5	-	-	V	IE= 1mA, IC= 0A
Collector cut-off current	ICBO	-	-	10	uA	VCB= 160V, IE= 0A
DC current gain 1	hFE 1	80	200	360	-	VCE= 5V, IC= 150mA
DC current gain 2	hFE 2	30	-	-	-	VCE= 5V, IC= 500mA
Collector-emitter saturation voltage	VCE(sat)	-	-	1	V	IC= 500mA, IB= 50mA
Base-emitter saturation voltage	VBE(on)	-	-	1.5	V	VCE= 5V, IC= 150mA
Transition frequency	fT	-	200	-	MHz	VCE= 5V, IE= -150mA
Collector output capacitance	Cob	-	13	-	pF	VCB= 10V, f = 1MHz, IE= 0A

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.

No. C5951-20050213

Fig.1 IC - VBE(on)
at VCE= 5V, Ta= 25C

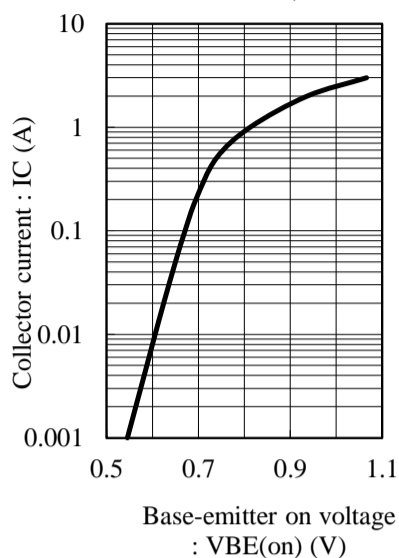


Fig.2 hFE - IC
at VCE= 5V, Ta= 25C

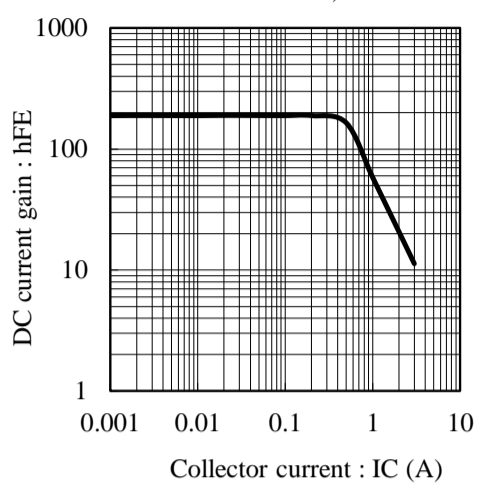


Fig.3 VCE(sat) - IC
at IC/IB= 10, Ta= 25C

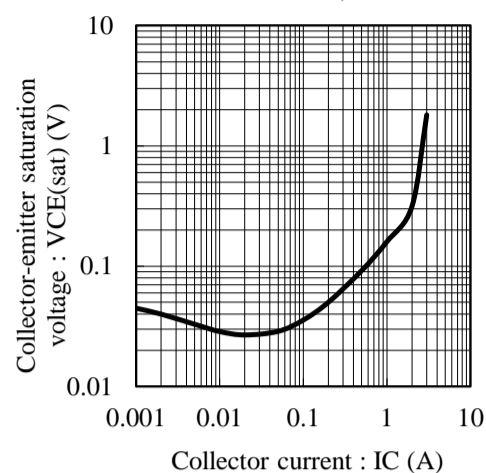


Fig.4 VBE(sat) - IC
at IC/IB= 10, Ta= 25C

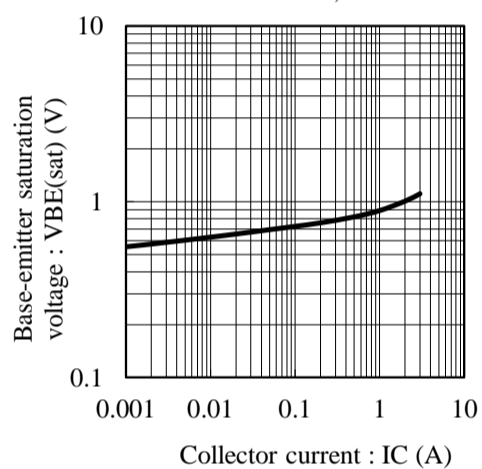


Fig.5 fT - IE
at VCE= 5V, Ta= 25C

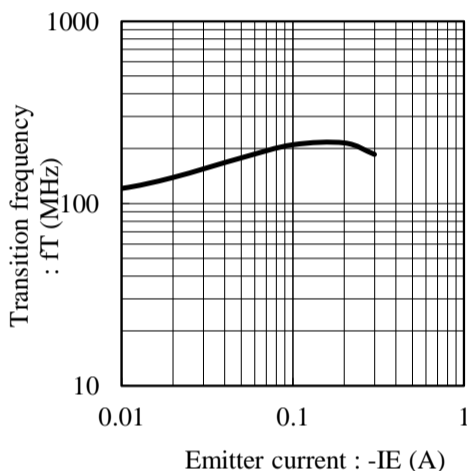


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

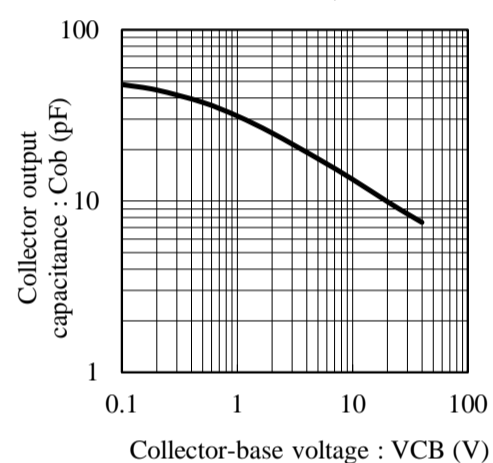


Fig.7 Cib - VEB
at f= 1MHz, Ta= 25C

