

**Silicon NPN transistor epitaxial type
6C334**
[Applications]

General purpose

[Feature]

Low collector saturation voltage $V_{CE(sat)} = 0.6V(\text{Max.})$ at $I_C = 100\text{mA}$, $I_B = 5\text{mA}$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	80	V
Collector-emitter voltage	VCEO	65	V
Emitter-base voltage	VEBO	6	V
Collector current	IC	100	mA
Junction temperature	Tj	125	C
Storage temperature	Tstg	-55 to 125	C

[Electrical characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	80	-	-	V	$I_C = 50\mu\text{A}$, $I_E = 0\text{A}$
Collector-emitter breakdown voltage	BVCEO	65	-	-	V	$I_C = 1\text{mA}$, $I_B = 0\text{A}$
Emitter-base breakdown voltage	BVEBO	6	-	-	V	$I_E = 50\mu\text{A}$, $I_C = 0\text{A}$
Collector cut-off current	ICBO	-	-	50	nA	$V_{CB} = 80\text{V}$
Emitter cut-off current	IEBO	-	-	50	nA	$V_{EB} = 6\text{V}$
DC current gain	hFE	110	-	450	-	$V_{CE} = 5\text{V}$, $I_C = 2\text{mA}$
Collector-emitter saturation voltage 1	$V_{CE(sat)1}$	-	-	0.25	V	$I_C = 10\text{mA}$, $I_B = 0.5\text{mA}$
Collector-emitter saturation voltage 2	$V_{CE(sat)2}$	-	-	0.6	V	$I_C = 100\text{mA}$, $I_B = 5\text{mA}$

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

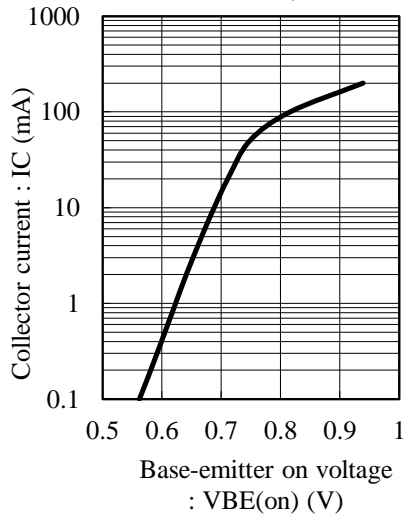


Fig.2 hFE - IC
at VCE= 5V, Ta= 25C

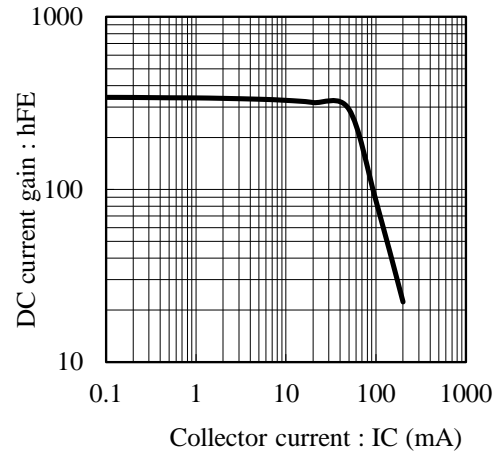


Fig.3 VCE(sat) - IC
at IC/IB= 20, Ta= 25C

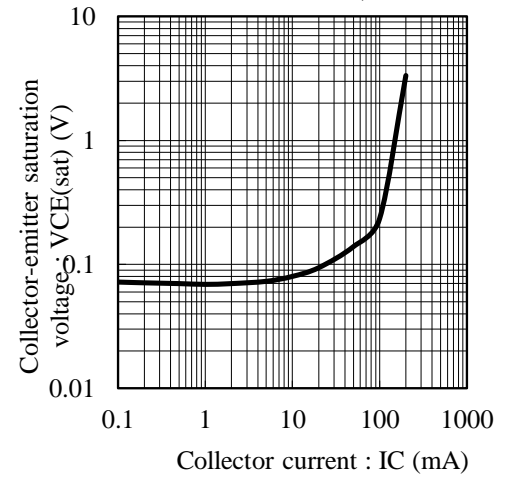


Fig.4 VBE(sat) - IC
at IC/IB= 20, Ta= 25C

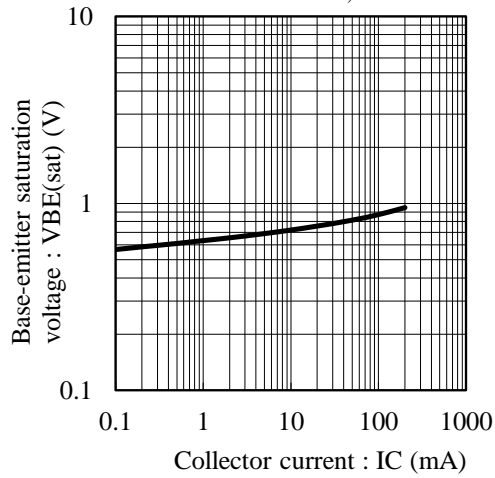


Fig.5 fT - IE
at VCE= 5V, Ta= 25C

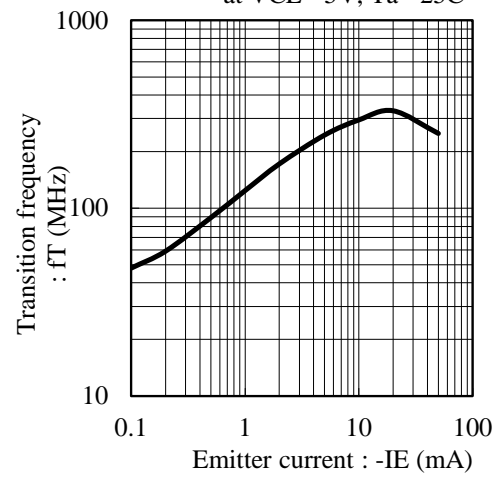


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

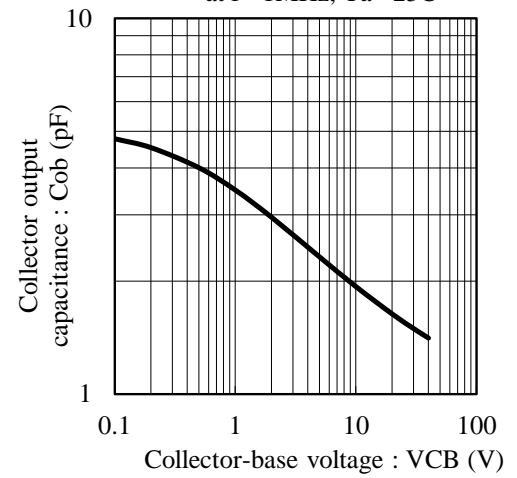


Fig.7 Cib - VEB
at f= 1MHz, Ta= 25C

