

Silicon NPN transistor triple diffused type CP984

[Applications]

High voltage switching

[Feature]

High voltage $V_{CEO}=400V$, $V_{CBO}=500V$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	500	V
Collector-emitter voltage	VCEO	400	V
Emitter-base voltage	VEBO	8	V
Collector current	IC	500	mA
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	500	-	-	V	IC= 100uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	400	-	-	V	IC= 1mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	8	-	-	V	IE= 100uA, IC= 0A
Collector cut-off current	ICBO	-	-	10	uA	VCB= 420V, IE= 0A
Emitter cut-off current	IEBO	-	-	10	uA	VEB= 8V, IC= 0A
DC current gain	hFE	10	-	30	-	VCE= 10V, IC= 5mA
Collector-emitter saturation voltage	VCE(sat)	-	-	0.4	V	IC= 50mA, IB= 10mA
Base-emitter saturation voltage	VBE(sat)	-	-	1.0	V	IC= 50mA, IB= 10mA
Transition frequency	fT	10	-	-	MHz	VCE= 10V, IE= -10mA

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. CP984-20071128

Fig.1 IC - VBE(on)
at VCE= 10V, Ta= 25C

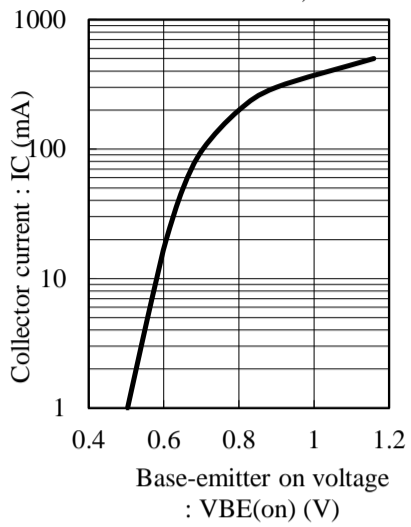


Fig.2 hFE - IC
at VCE= 10V

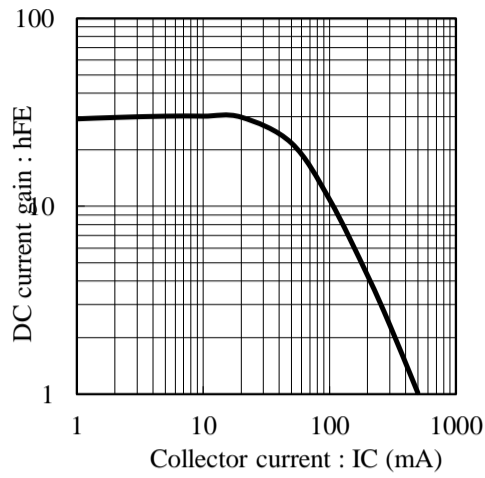


Fig.3 VCE(sat) - IC
at IC/IB= 5

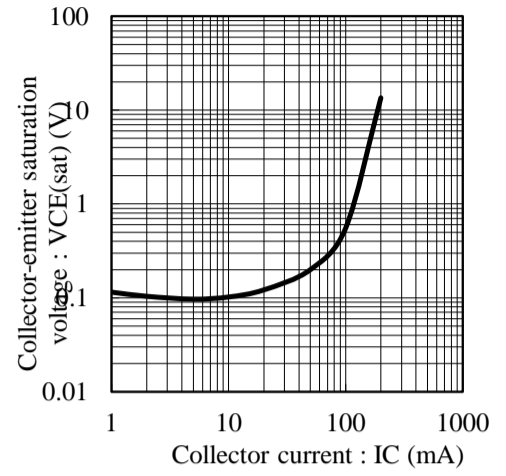


Fig.4 VBE(sat) - IC
at IC/IB= 5

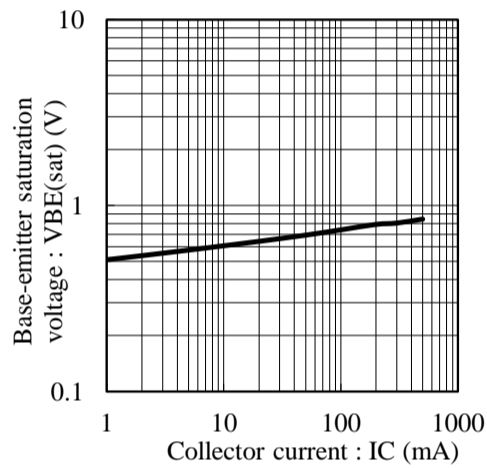


Fig.5 fT - IE
at VCE= 10V, Ta= 25C

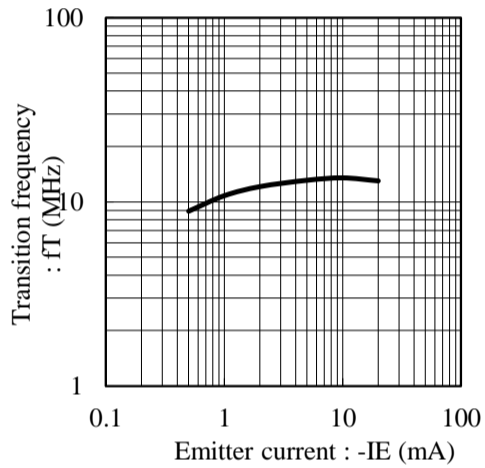


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

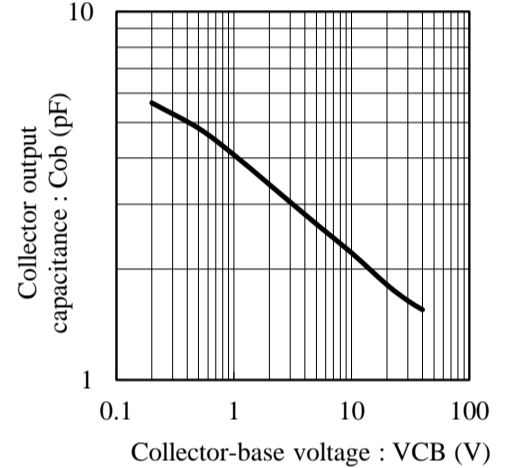


Fig.7 Cib-VEB
at f= 1MHz, Ta= 25C

