

**Silicon NPN transistor triple diffused type
CP880**

[Applications]

High voltage switching

[Feature]

High voltage V_{CEO}= 800V, V_{CBO}= 1600V

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	1600	V
Collector-emitter voltage	VCEO	800	V
Emitter-base voltage	VEBO	6	V
Collector current	IC	0.3	A
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	1600	-	-	V	IC= 1mA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	800	-	-	V	IC= 5mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	6	-	-	V	IE= 1mA, IC= 0A
Collector cut-off current	ICBO	-	-	10	uA	VCB= 1600V, IE= 0A
Collector cut-off current	ICEO	-	-	1	mA	VCE= 800V, IB= 0A
Emitter cut-off current	IEBO	-	-	10	uA	VEB= 6V, IC= 0A
DC current gain 1	hFE 1	20	-	40	-	VCE= 5V, IC= 0.01A
DC current gain 2	hFE 2	4	-	-	-	VCE= 5V, IC= 0.1A
DC current gain 3	hFE 3	1.5	-	-	-	VCE= 5V, IC= 0.25A
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	0.3	V	IC= 0.05A, IB= 0.01A
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	1.5	V	IC= 0.1A, IB= 0.02A
Base-emitter saturation voltage	VBE(sat)	-	-	1.5	V	IC= 0.25A, IB= 0.05A
Rise time	tr	-	-	0.8	us	VCC= 400V, IC= 0.25A
Storage time	tstg	-	-	3	us	IB1= 0.05A, IB2= -0.1A
Fall time	tf	-	-	0.4	us	

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

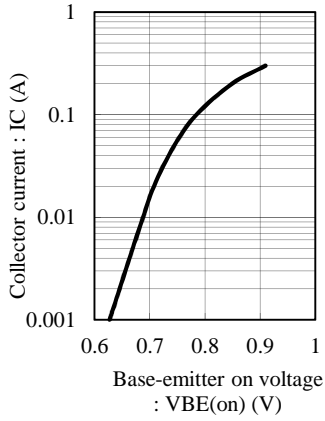


Fig.2 hFE - IC
at VCE= 5V, Ta= 25C

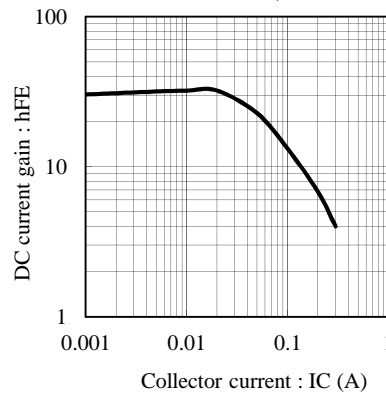


Fig.3 VCE(sat) - IC
at IC/IB= 5, Ta= 25C

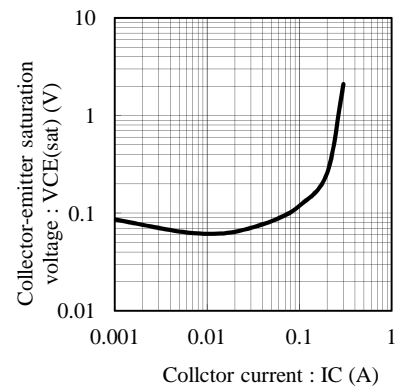


Fig.4 VBE(sat) - IC
at IC/IB= 5, Ta= 25C

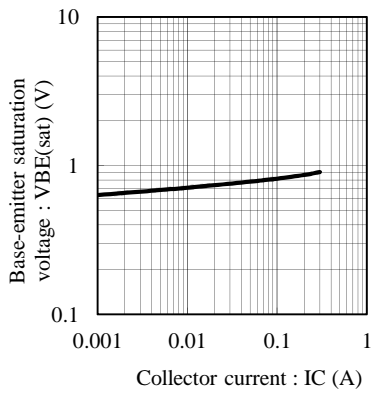


Fig.5 Cob - VCB
at f= 1MHz, Ta= 25C

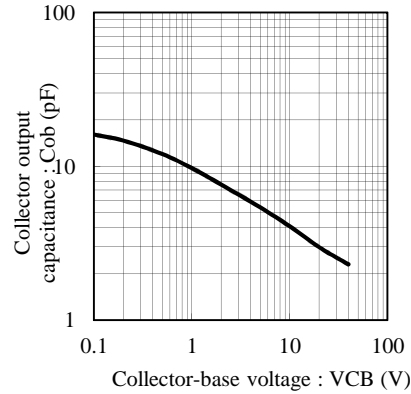


Fig.6 Cib-VEB
at f= 1MHz, Ta= 25C

