

**Silicon PNP transistor triple diffused type
AP845**

[Applications]

High voltage switching
High voltage driver

[Feature]

High collector breakdown voltage $V_{CEO} = -400V$, $V_{CBO} = -400V$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-400	V
Collector-emitter voltage	VCEO	-400	V
Emitter-base voltage	VEBO	-7	V
Collector current (DC)	IC	-0.5	A
Collector current (Pulse)	ICP	-1	A
Base current	IB	-0.25	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-emitter breakdown voltage	BVCEO	-400	-	-	V	IC= -10mA, IB= 0A
Collector cut-off current	ICBO	-	-	-10	uA	VCB= -400V, IE= 0A
Emitter cut-off current	IEBO	-	-	-1	uA	VEB= -7V, IC= 0A
DC current gain 1	hFE1	140	-	450	-	VCE= -5V, IC= -20mA
DC current gain 2	hFE2	140	-	400	-	VCE= -5V, IC= -0.1A
Collector-emitter saturation voltage	VCE(sat)	-	-	-1	V	IC= -0.1A, IB= -10mA
Base-emitter saturation voltage	VBE(sat)	-	-	-0.9	V	IC= -0.1A, IB= -10mA
Transition frequency	fT	-	35	-	MHz	VCE= -5V, IE= 50mA
Collector output capacitance	Cob	-	18	-	pF	VCB= -10V, IE= 0A, f= 1MHz
Rise time	tr	-	0.2	-	us	VCC= -200V, IC= -0.1A
Storage time	tstg	-	2.3	-	us	IB1= -10mA, IB2= 20mA
Fall time	tf	-	0.2	-	us	Duty cycle<= 1%

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

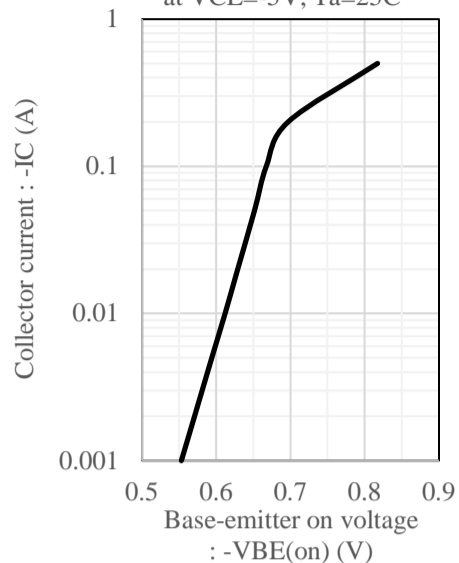


Fig.2 hFE - IC
at VCE=-5V, Ta=25C

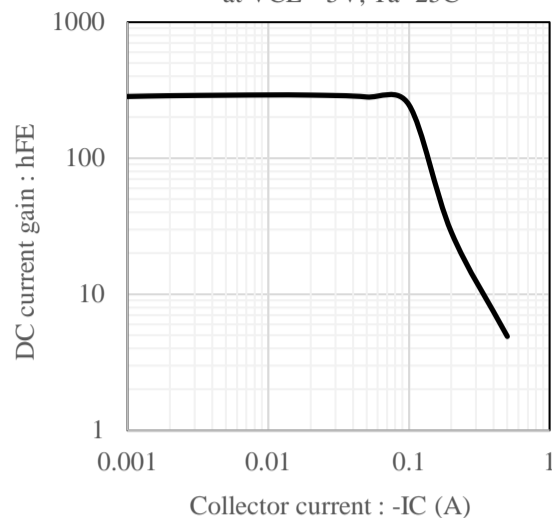


Fig.3 VCE(sat) - IC
at IC/IB=10, Ta=25C

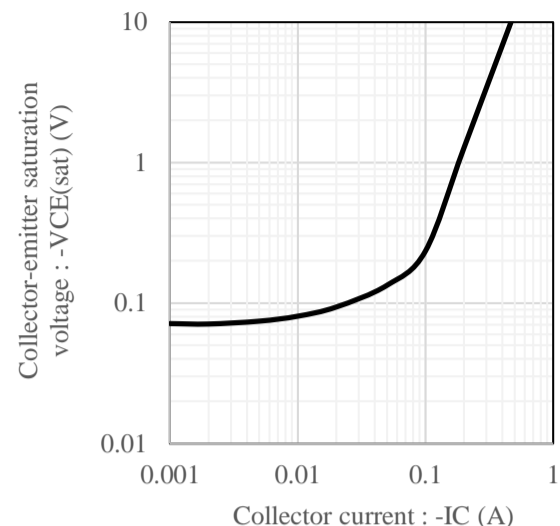


Fig.4 VBE(sat) - IC
at IC/IB=10, Ta=25C

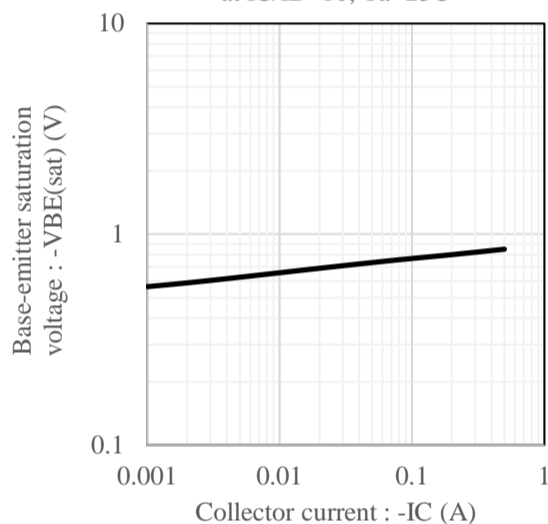


Fig.5 fT - IE
at VCE=-5V, Ta=25C

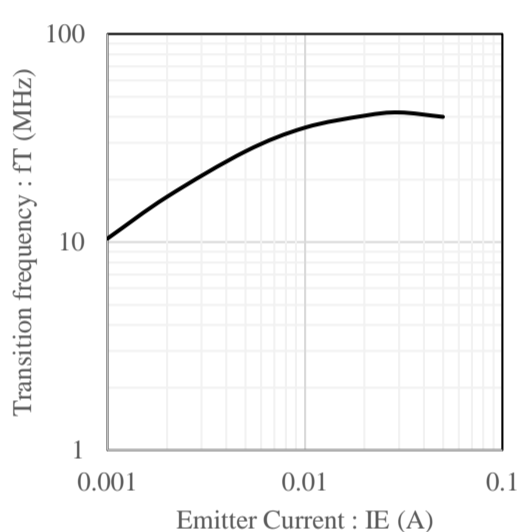


Fig.6 Cob - VCB
at f=1MHz, Ta=25C

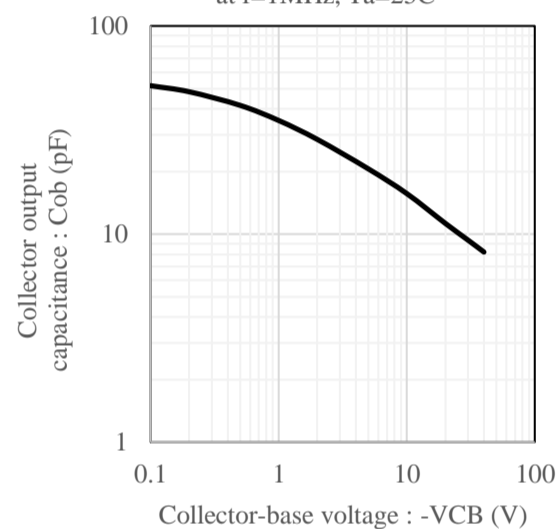


Fig.7 Cib - VEB
at f=1MHz, Ta=25C

