

**Silicon PNP transistor epitaxial type
AP969**

[Applications]

Chopper

[Feature]

High VEBO voltage VEBO= -25V

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-40	V
Collector-emitter voltage	VCEO	-35	V
Emitter-base voltage	VEBO	-25	V
Collector current	IC	-150	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	-40	-	-	V	IC= -10uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	-35	-	-	V	IC= -10mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	-25	-	-	V	IE= -10uA, IC= 0A
Collector cut-off current	ICBO	-	-	-100	nA	VCB= -10V, IE= 0A
Emitter cut-off current	IEBO	-	-	-100	nA	VEB= -10V, IC= 0A
DC current gain	hFE	100	-	400	-	VCE= -0.15V, IC= -12mA
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	-0.15	V	IC= -12mA, IB= -400uA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	-0.2	V	IC= -24mA, IB= -1mA
Base-emitter saturation voltage 1	VBE(sat) 1	-	-	-0.85	V	IC= -12mA, IB= -400uA
Base-emitter saturation voltage 2	VBE(sat) 2	-	-	-1	V	IC= -24mA, IB= -1mA
Transition frequency	fT	-	30	-	MHz	VCE= -6V, IE= 10mA
Collector output capacitance	Cob	-	20	-	pF	VCB= -6V, f = 1MHz, IE= 0A
Turn on time	ton	-	550	-	ns	VCC= -10V, IC= -10mA
Storage time	tstg	-	3	-	us	-IB1= IB2= 1mA
Fall time	tf	-	750	-	ns	

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= -0.15V, Ta= 25C

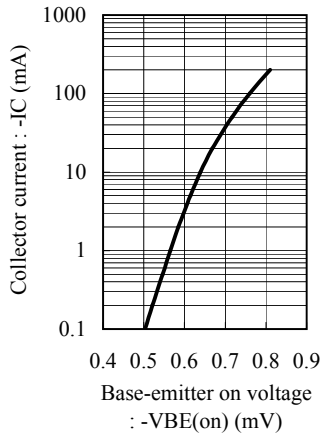


Fig.2 hFE - IC
at VCE= -0.15V, Ta= 25C

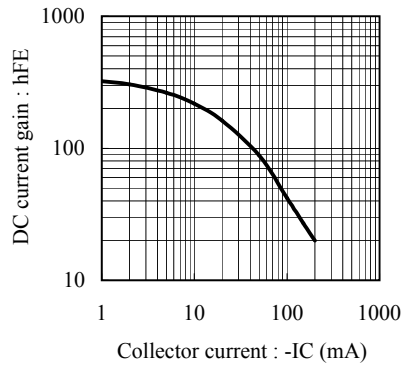


Fig.3 VCE(sat) - IC
at IC/IB= 30, Ta= 25C

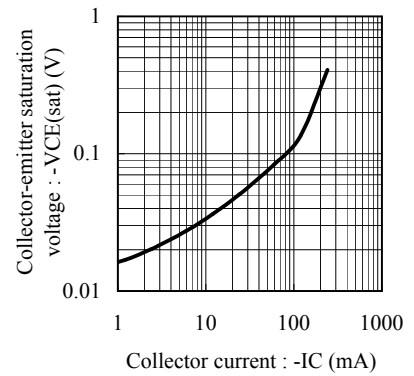


Fig.4 VCE(sat) - IC
at IC/IB= 24, Ta= 25C

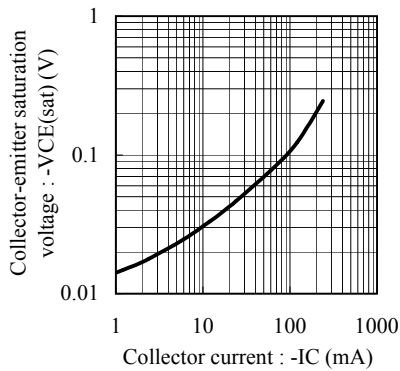


Fig.5 VBE(sat) - IC
at IC/IB= 30, Ta= 25C

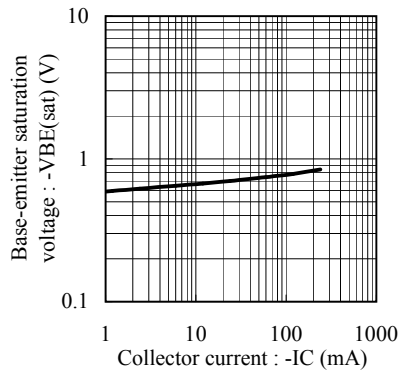


Fig.6 VBE(sat) - IC
at IC/IB= 24, Ta= 25C

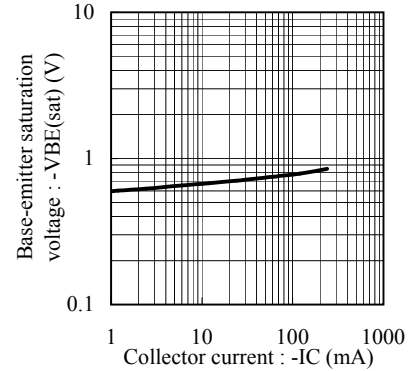


Fig.7 fT - IE
at VCE= -6V, Ta= 25C

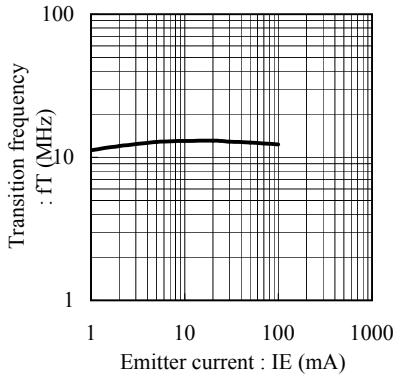


Fig.8 Cob - VCB
at f= 1MHz, Ta= 25C

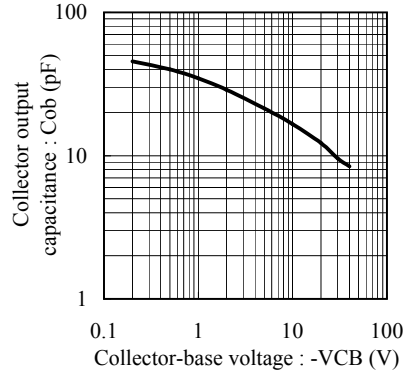


Fig.9 Cib - VEB
at f= 1MHz, Ta= 25C

