Silicon PNP transistor epitaxial type
A5886

[Applications]
 Supply line switchimg circuits, Battery charger
 DC-DC converter, MOSFET driver

[Feature]
 Very low collector saturation voltage   VCE(sat)= -375mV (Max.) at IC= -5A, IB= -0.5A

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-40	V
Collector-emitter voltage	VCEO	-40	V
Emitter-base voltage	VEBO	-6	V
Collector current (DC)	IC	-5	A
Collector current (Pulse)	IC	-10	A
Base current (Pulse)	IB	-2	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-base breakdown voltage	BVCBO	-40	-	-	V	IC= -100uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	-40	-	-	V	IC= -10mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	-6	-	-	V	IE= -100uA, IC= 0A
Collector cut-off current	ICBO	-	-	-100	nA	VCB= -30V, IE= 0A
Emitter cut-off current	IEBO	-	-	-100	nA	VEB= -5V, IC= 0A
DC current gain 1	hFE 1	250	350	-	-	VCE= -2V, IC= -0.5A
DC current gain 2	hFE 2	200	300	-	-	VCE= -2V, IC= -1A
DC current gain 3	hFE 3	150	250	-	-	VCE= -2V, IC= -2A
DC current gain 4	hFE 4	50	150	-	-	VCE= -2V, IC= -5A
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-80	-120	mV	IC= -0.5A, IB= -5mA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-120	-170	mV	IC= -1A, IB= -10mA
Collector-emitter saturation voltage 3	VCE(sat) 3	-	-110	-160	mV	IC= -2A, IB= -0.2A
Collector-emitter saturation voltage 4	VCE(sat) 4	-	-250	-375	mV	IC= -5A, IB= -0.5A
Base-emitter saturation voltage	VBE(sat)	-	-	-1.3	V	IC= -5A, IB= -0.5A
Base-emitter on voltage	VBE(on)	-	-0.8	-1.25	V	VCE= -2V, IC= -2A
Transition frequency	fT	60	120	-	MHz	VCE= -10V, IE= 0.1A
Collector output capacitance	Cob	-	90	105	pF	VCB= -10V, f = 1MHz, IE= 0A

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= -2V, Ta= 25C

Collector current : -IC (A)

Base-emitter on voltage
: -VBE(on) (V)
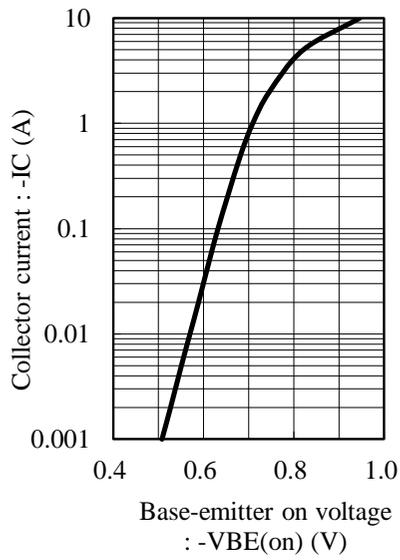
Fig.2　hFE - IC
at VCE= -2V, Ta= 25C

DC current gain : hFE

Collector current : -IC (A)

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

Collector-emitter saturation
voltage : -VCE(sat) (mV)

Collector current : -IC (A)
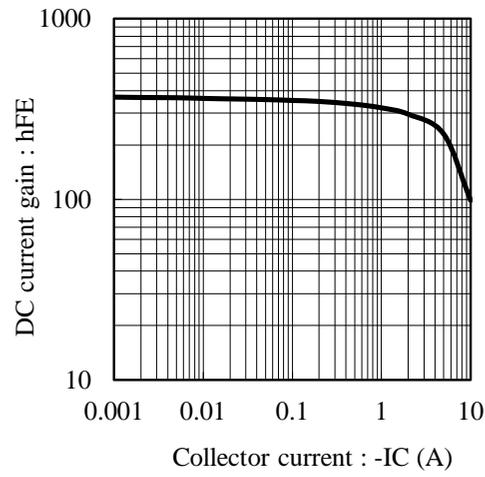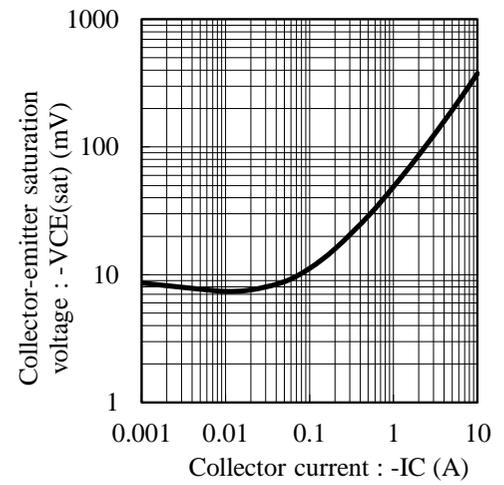
Fig.4　VCE(sat) - IC
at IC/IB= 100, Ta= 25C

Collector-emitter saturation
voltage : -VCE(sat) (mV)

Collector current : -IC (A)
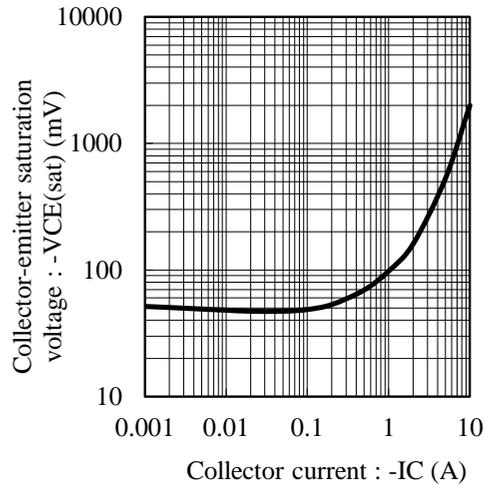
Fig.5　VBE(sat) - IC
at IC/IB= 10, Ta= 25C

Base-emitter saturation
voltage : -VBE(sat) (V)

Collector current : -IC (A)
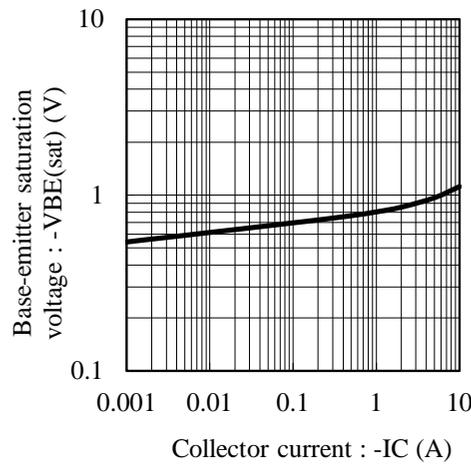
Fig.6　fT - IE
at VCE= -10V, Ta= 25C

Transition frequency
: fT (MHz)

Emitter current : IE (A)
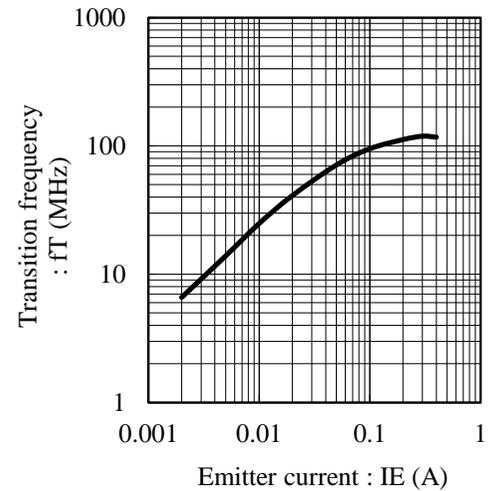
Fig.7　Cob - VCB
at f= 1MHz, Ta= 25C

Collector output
capacitance : Cob (pF)

Collector-base voltage : -VCB (V)
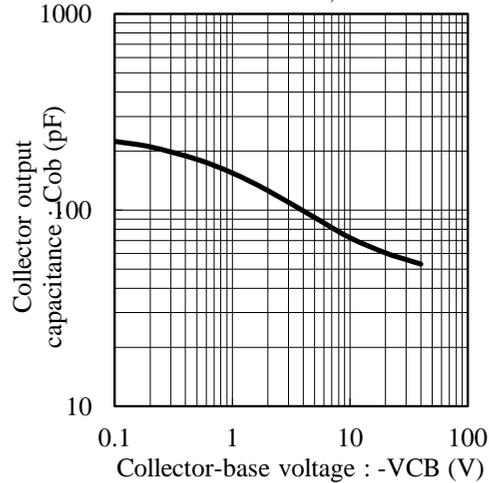
Fig.8　Cib - VEB
at f= 1MHz, Ta= 25C

Collector input
capacitance : Cib (pF)

Emitter-base voltage : -VEB (V)

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