Silicon PNP transistor epitaxial type
A5861

[Applications]
LED TV

[Feature]
Very low collector saturation voltage VCE(sat)= -430mV (Max.) at IC= -2A, IB= -0.1A

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-60	V
Collector-emitter voltage	VCES	-60	V
Collector-emitter voltage	VCEO	-50	V
Emitter-base voltage	VEBO	-6	V
Collector current (DC)	IC	-5	A
Collector current (Pulse)	IC	-7.5	A
Base current (DC)	IB	-1.2	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	-60	-	-	V	IC= -100uA, IE= 0A
Collector-emitter breakdown voltage	BVCES	-60	-	-	V	IC= -100uA
Collector-emitter breakdown voltage	BVCEO	-50	-	-	V	IC= -1mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	-6	-	-	V	IE= -10uA, IC= 0A
Collector cut-off current	ICBO	-	-	-100	nA	VCB= -60V, IE= 0A
Emitter cut-off current	IEBO	-	-	-100	nA	VEB= -6V, IC= 0A
DC current gain	hFE	220	-	560	-	VCE= -2V, IC= -0.5A
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	-195	mV	IC= -1A, IB= -50mA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	-430	mV	IC= -2A, IB= -0.1A
Base-emitter saturation voltage	VBE(sat)	-	-	-1.2	V	IC= -2A, IB= -0.1A
Transition frequency	fT	-	150	-	MHz	VCE= -10V, IE= 0.5A
Collector output capacitance	Cob	-	50	-	pF	VCB= -10V, f = 1MHz, IE= 0A
Turn on time	ton	-	30	-	ns	VCC= -25V, IC= -1A
Storage time	tstg	-	230	-	ns	-IB1= IB2= -0.1A
Fall time	tf	-	15	-	ns	VBE= -5V

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

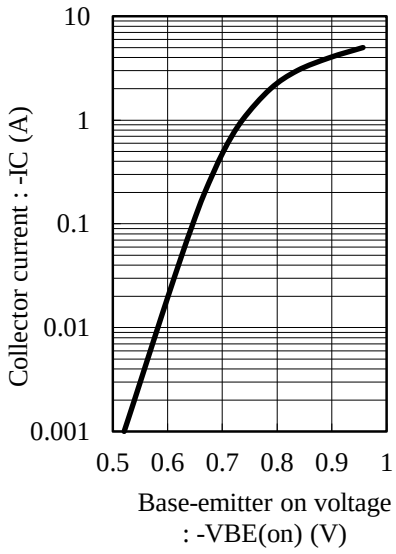

Fig.2 hFE - IC
at VCE= -2V, Ta= 25C

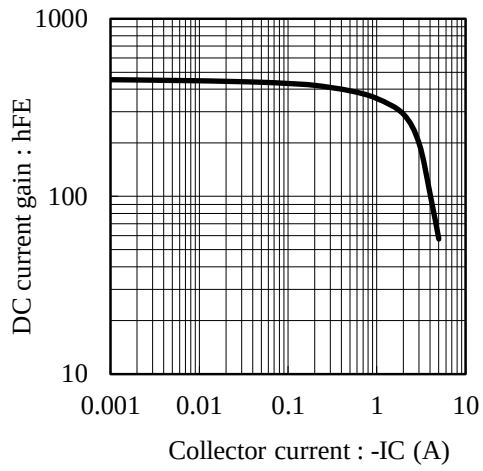

Fig.3 VCE(sat) - IC
at IC/IB= 20, Ta= 25C

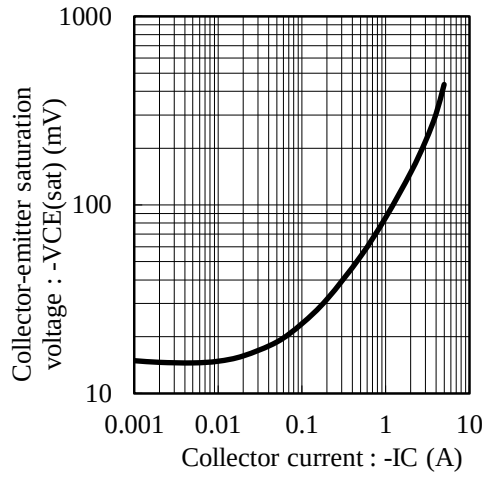

Fig.4 VCE(sat) - IC
at IC/IB= 50, Ta= 25C

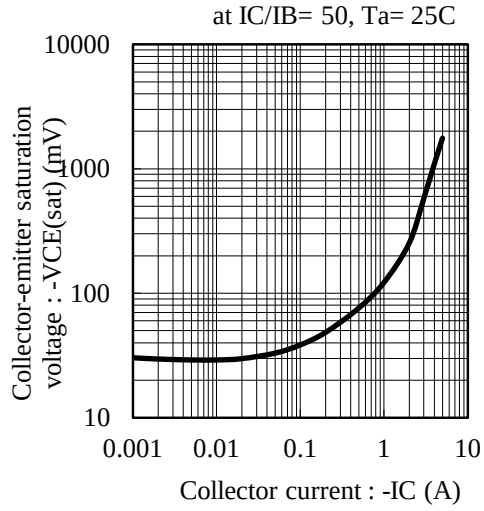

Fig.5 VBE(sat) - IC
at IC/IB= 20, Ta= 25C

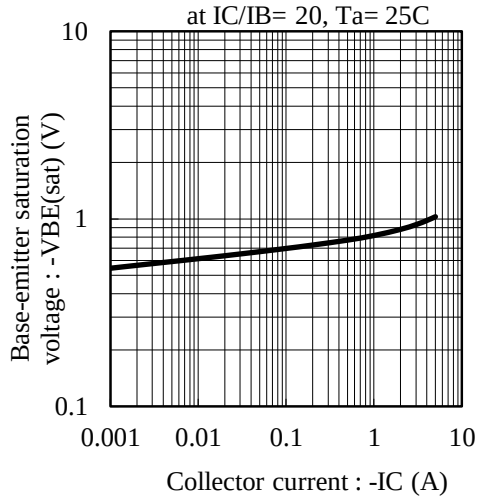

Fig.6 VBE(sat) - IC
at IC/IB= 50, Ta= 25C

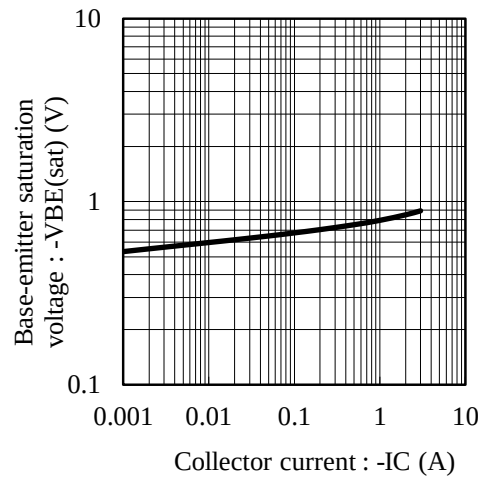

Fig.7 fT - IE
at VCE= -10V, Ta= 25C

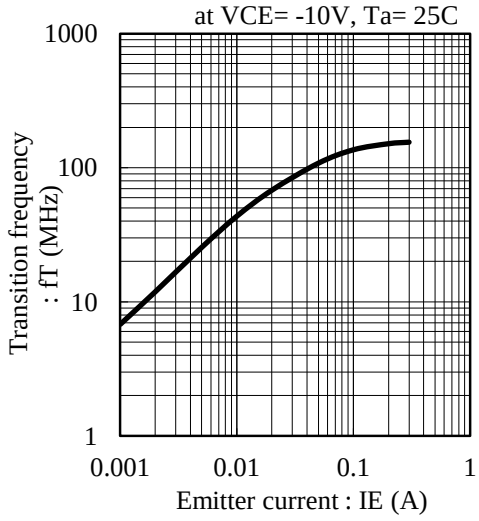

Fig.8 Cob - VCB
at f= 1MHz, Ta= 25C

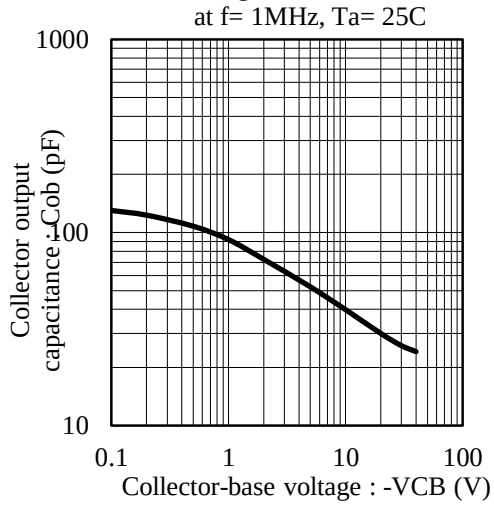

Fig.9 Cib - VEB
at f= 1MHz, Ta= 25C