Silicon PNP transistor epitaxial type
A5889

[Applications]

High speed switching
DC-DC convertor
Strobe flash

[Feature]

High DC gain hFE= 200-500 at VCE= -2V, IC= -0.5A
Low collector saturation voltage VCE(sat)= -0.19V (Max.) at IC= -1.6A, IB= -53mA
High speed switching time tf= 40ns (Typ.) at VCC= -12V, IC= -1.6A, IB= -53mA

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-20	V
Collector-emitter voltage	VCEO	-20	V
Emitter-base voltage	VEBO	-7	V
Collector current (DC)	IC	-3	A
Collector current (Pulse)	ICP	-5	A
Base current	IB	-0.3	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	-20	-	-	V	IC= -10mA, IB= 0A
Collector cut-off current	ICBO	-	-	-100	nA	VCB= -20V, IE= 0A
Emitter cut-off current	IEBO	-	-	-100	nA	VEB= -7V, IC= 0A
DC current gain 1	hFE 1	200	-	500	-	VCE= -2V, IC= -0.5A
DC current gain 2	hFE 2	100	-	-	-	VCE= -2V, IC= -1.6A
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.19	V	IC= -1.6A, IB= -53mA
Base-emitter saturation voltage	VBE(sat)	-	-	-1.1	V	IC= -1.6A, IB= -53mA
Transition frequency	fT	-	160	-	MHz	VCE= -2V, IE= 0.5A
Collector output capacitance	Cob	-	40	-	pF	VCB= -10V, f = 1MHz, IE= 0A
Turn on time	ton	-	70	-	ns	VCC= -12V, IC= -1.6A
Storage time	tstg	-	150	-	ns	-IB1= IB2= 53mA
Fall time	tf	-	40	-	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= -2V,Ta= 25C

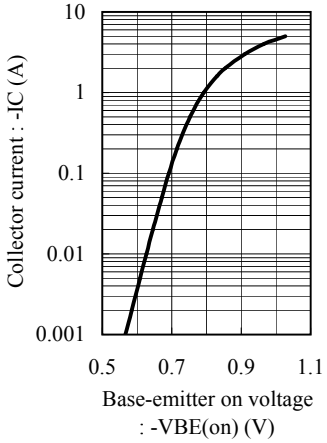

Fig.2 hFE - IC
at VCE= -2V, Ta= 25C

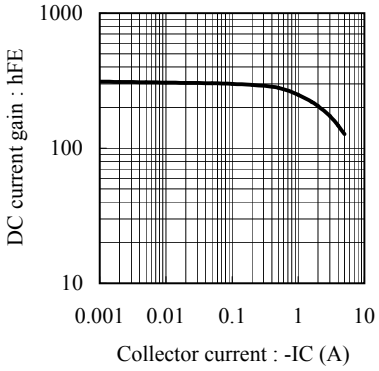

Fig.3 VCE(sat) - IC
at IC/IB= 30, Ta= 25C

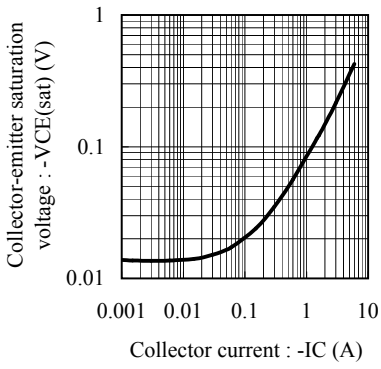

Fig.4 VBE(sat) - IC
at IC/IB= 30, Ta= 25C

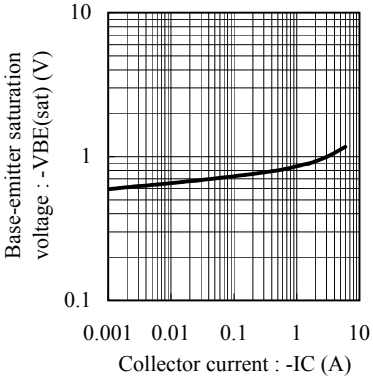

Fig.5 fT - IE
at VCE= -2V, Ta= 25C

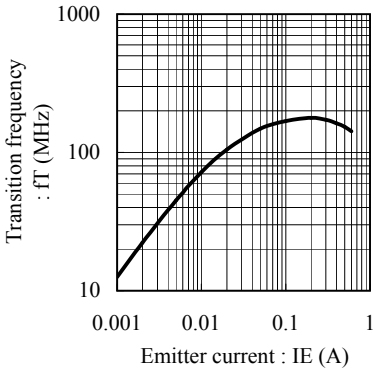

Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

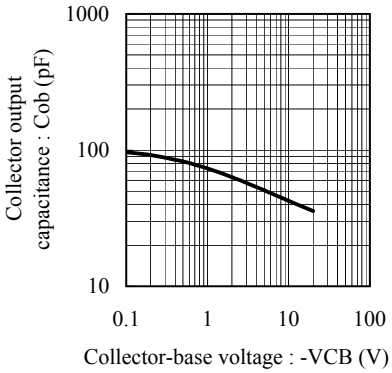

Fig.7 Cib - VEB
at f= 1MHz, Ta= 25C