

**Silicon PNP transistor epitaxial type  
A5952**
**[ Applications ]**

High voltage amplifier

**[ Feature ]**

 High voltage  $V_{CEO} = -200V$ 

Large continuous collector current capability

**[ Absolute maximum ratings ( $T_a = 25^\circ C$ ) ]**

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-200	V
Collector-emitter voltage	VCEO	-200	V
Emitter-base voltage	VEBO	-6	V
Collector current	IC	-1	A
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

**[ Electrical characteristics ( $T_a = 25^\circ C$ ) ]**

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	-200	-	-	V	IC = -100uA, IE = 0A
Collector-emitter breakdown voltage	BVCEO	-200	-	-	V	IC = -10mA, IB = 0A
Emitter-base breakdown voltage	BVEBO	-6	-	-	V	IE = -100uA, IC = 0A
Base-emitter on voltage	VBE(on)	-0.45	-	-0.75	V	VCE = -5V, IC = -5mA
Collector cut-off current	ICBO	-	-	-1.0	uA	VCB = -160V, IE = 0A
Emitter cut-off current	IEBO	-	-	-1.0	uA	VEB = -6V, IC = 0A
DC current gain 1	hFE 1	60	-	280	-	VCE = -5V, IC = -200mA
DC current gain 2	hFE 2	20	-	-	-	VCE = -5V, IC = -1A
Collector-emitter saturation voltage	VCE(sat)	-	-	-0.5	V	IC = -500mA, IB = -50mA
Transition frequency	fT	-	130	-	MHz	VCE = -5V, IE = 200mA
Collector output capacitance	Cob	-	20	-	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.

No. A5952-20070213

Fig.1 IC - VBE(on)  
at VCE= -5V, Ta= 25C

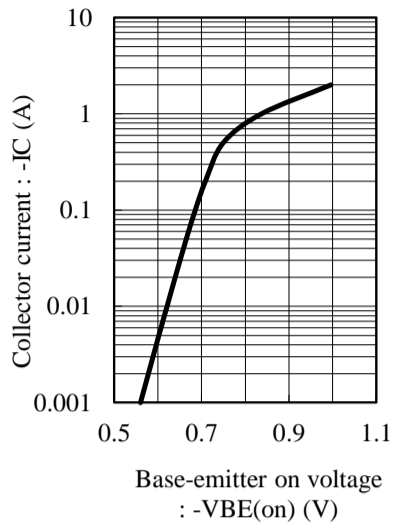


Fig.2 hFE - IC  
at VCE= -5V, Ta= 25C

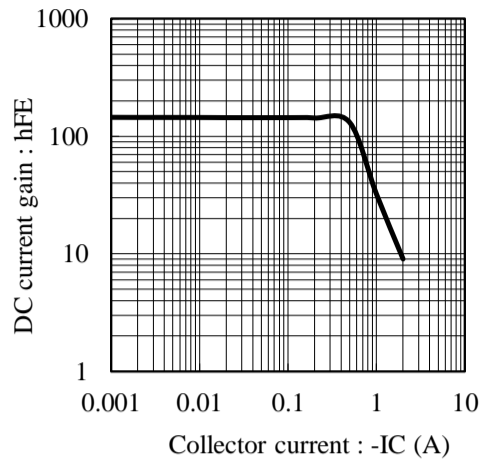


Fig.3 VCE(sat) - IC  
at IC/IB= 10, Ta= 25C

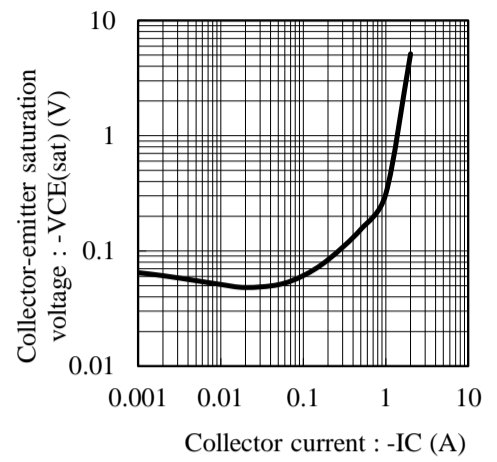


Fig.4 VBE(sat) - IC  
at IC/IB= 10, Ta= 25C

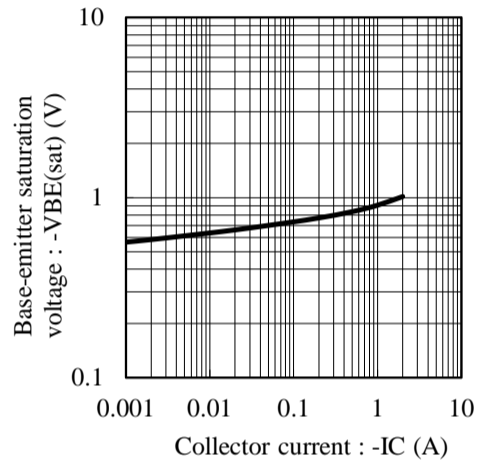


Fig.5 fT - IE  
at VCE= -5V, Ta= 25C

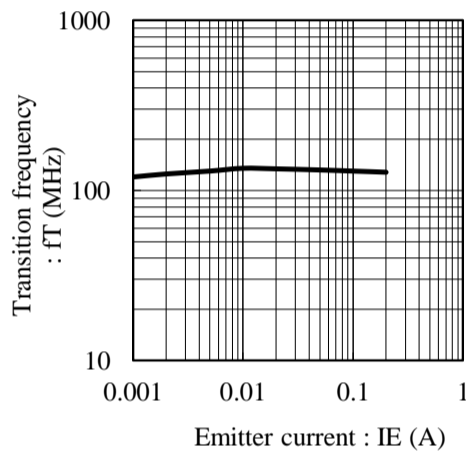


Fig.6 Cob - VCB  
at f= 1MHz, Ta= 25C

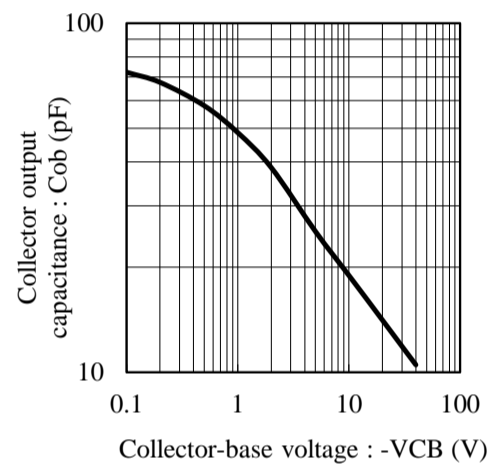


Fig.7 Cib - VEB  
at f=1MHz, Ta= 25C

