

Silicon PNP transistor epitaxial type
A5927

[Applications]

Power amplifier
 Power switching

[Feature]

Low collector saturation voltage $V_{CE(sat)} = -0.5V$ (Max.) at $I_C = -1A$, $I_B = -50mA$
 High speed switching time $t_{stg} = 180ns$ (Typ.) at $V_{CC} = -30V$, $I_C = -1A$, $I_B = -50mA$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-50	V
Collector-emitter voltage	VCEO	-50	V
Emitter-base voltage	VEBO	-5	V
Collector current	IC	-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-emitter breakdown voltage	BVCEO	-50	-	-	V	$I_C = -10mA$, $I_B = 0A$
Collector cut-off current	ICBO	-	-	-100	nA	$V_{CB} = -50V$, $I_E = 0A$
Emitter cut-off current	IEBO	-	-	-100	nA	$V_{EB} = -5V$, $I_C = 0A$
DC current gain 1	hFE 1	70	-	240	-	$V_{CE} = -2V$, $I_C = -500mA$
DC current gain 2	hFE 2	20	-	-	-	$V_{CE} = -2V$, $I_C = -2A$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	-0.5	V	$I_C = -1A$, $I_B = -50mA$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	-1.2	V	$I_C = -1A$, $I_B = -50mA$
Transition frequency	fT	-	110	-	MHz	$V_{CE} = -2V$, $I_E = 500mA$
Collector output capacitance	Cob	-	15	-	pF	$V_{CB} = -10V$, $f = 1MHz$, $I_E = 0A$
Turn on time	ton	-	40	-	ns	$V_{CC} = -30V$, $I_C = -1A$
Storage time	tstg	-	180	-	ns	$-I_{B1} = I_{B2} = 50mA$
Fall time	tf	-	20	-	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

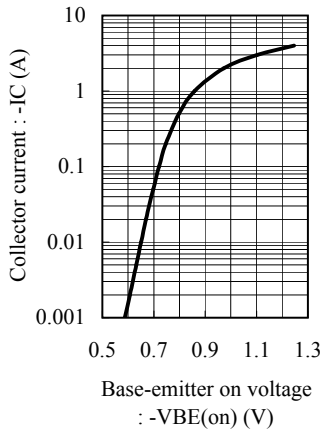


Fig.2 hFE - IC
at VCE=-2V, Ta= 25C

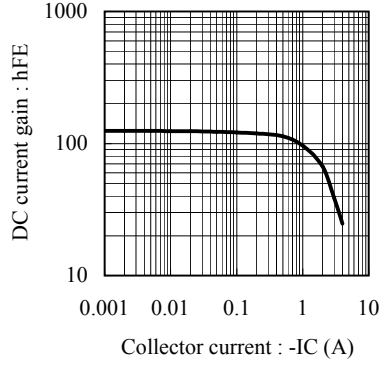


Fig.3 VCE(sat) - IC
at IC/IB= 20, Ta= 25C

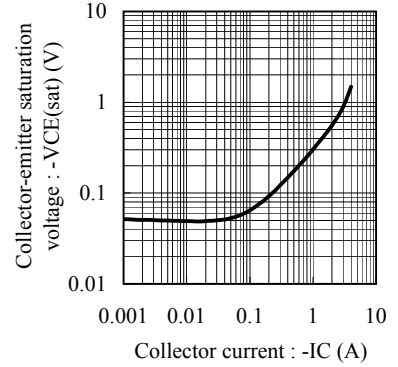


Fig.4 VBE(sat) - IC
at IC/IB= 20, Ta= 25C

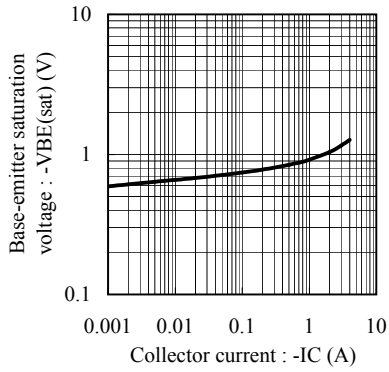


Fig.5 fT - IE
at VCE=-2V, Ta= 25C

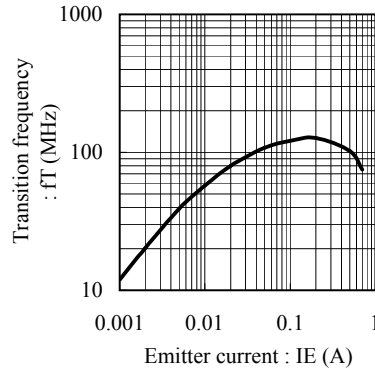


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

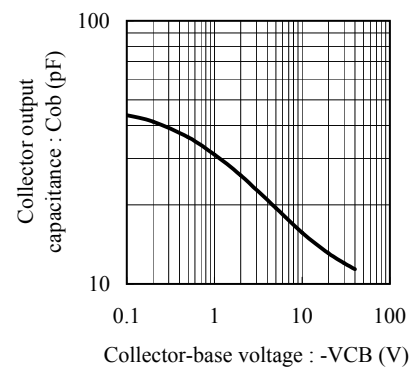


Fig.7 Cib - VEB
at f= 1MHz, Ta= 25C

