

Silicon NPN transistor triple diffused type DP982

[Applications]

Audio frequency power amplifier
General purpose amplifier

[Feature]

Low saturation voltage $V_{CE(sat)} = 1V$ (Max.) at $I_C = 3A$, $I_B = 0.3A$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	80	V
Collector-emitter voltage	VCEO	60	V
Emitter-base voltage	VEBO	5	V
Collector current	IC	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-base breakdown voltage	BVCBO	80	-	-	V	$I_C = 100\mu A$, $I_E = 0A$
Collector-emitter breakdown voltage	BVCEO	60	-	-	V	$I_C = 10mA$, $I_B = 0A$
Emitter-base breakdown voltage	BVEBO	5	-	-	V	$I_E = 100\mu A$, $I_C = 0A$
Collector cut-off current	ICBO	-	-	10	μA	$V_{CB} = 80V$, $I_E = 0A$
Emitter cut-off current	IEBO	-	-	10	μA	$V_{EB} = 5V$, $I_C = 0A$
DC current gain	hFE	90	-	350	-	$V_{CE} = 5V$, $I_C = 0.5A$
Collector-emitter saturation voltage	$V_{CE(sat)}$	-	-	1	V	$I_C = 3A$, $I_B = 0.3A$
Base-emitter saturation voltage	$V_{BE(sat)}$	-	-	1.5	V	$I_C = 3A$, $I_B = 0.3A$
Transition frequency	fT	-	8	-	MHz	$V_{CE} = 5V$, $I_E = -0.5A$
Collector output capacitance	Cob	-	37	-	pF	$V_{CB} = 10V$, $f = 1MHz$, $I_E = 0A$

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= 5V, Ta= 25C

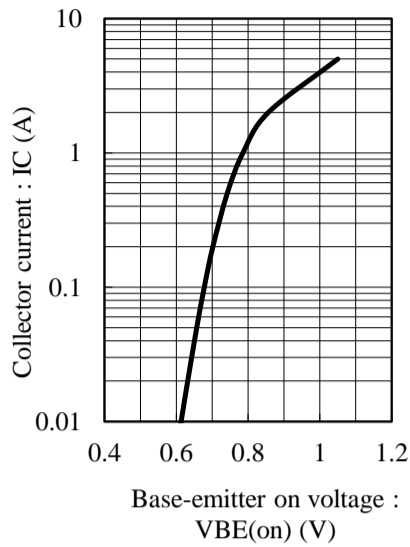


Fig.2 hFE - IC
at VCE= 5V, Ta= 25C

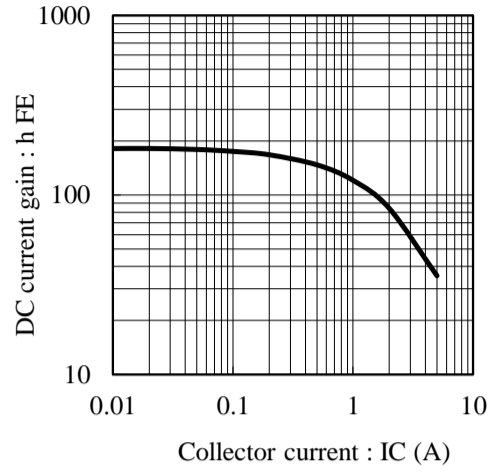


Fig.3 VCE(sat) - IC
at IC/IB= 10, Ta= 25C

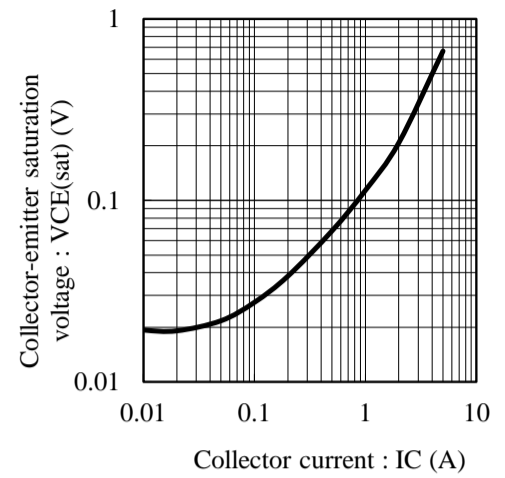


Fig.4 VBE(sat) - IC
at IC/IB= 10, Ta= 25C

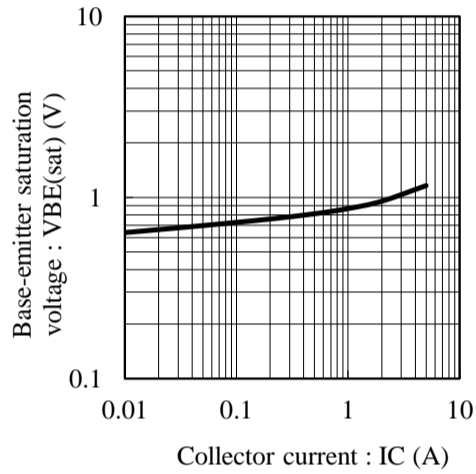


Fig.5 fT - IE
at VCE= 5V, Ta= 25C

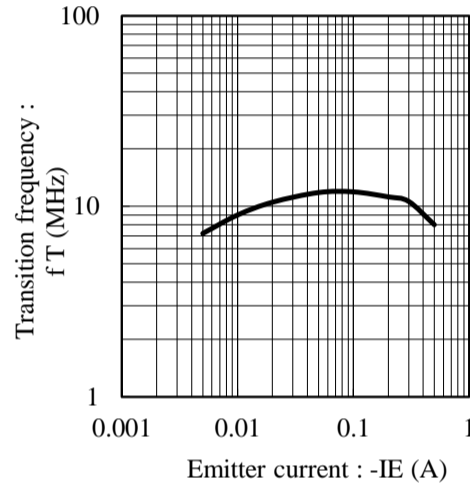


Fig.6 Cob - VCB
at f= 1MHz, Ta= 25C

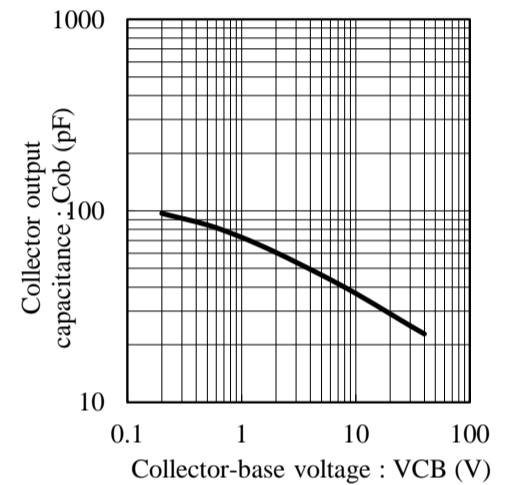


Fig.7 Cib - VEB
at f= 1MHz, Ta= 25C

