

Description

- General purpose application.
- Switching application.

Features

- Excellent hFE linearity.
- Complementary pair with STS9013

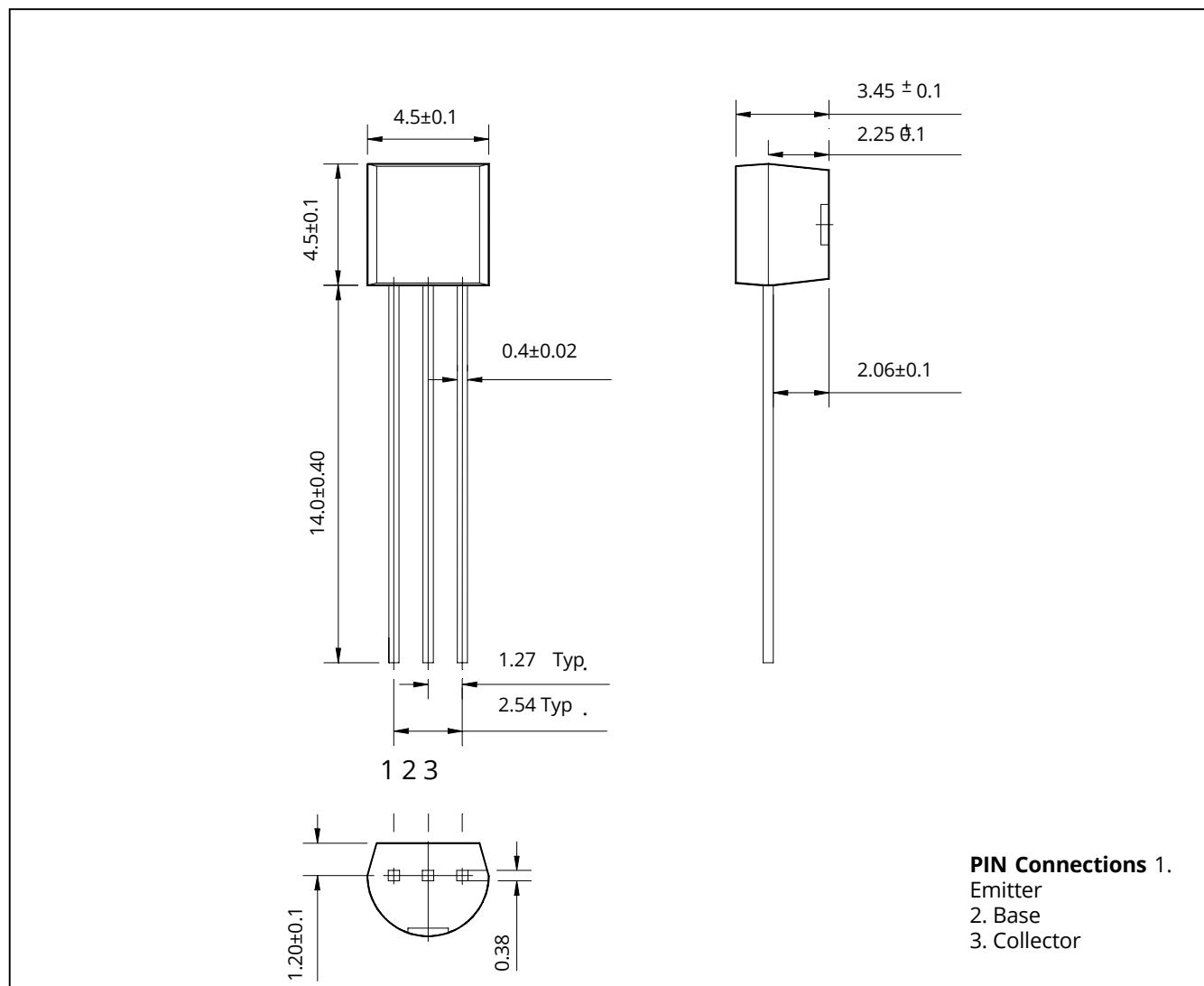
Ordering Information

Type NO. Marking Package Code

STS9012 STS9012 TO-92

Outline Dimensions unit :

mm



Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-40	V
Collector-Emitter voltage	V_{CEO}	-30	V
Emitter-Base voltage	V_{EBO}	-5	V
Collector current	I^C	-500	mA
Emitter current	I^E	500	mA
Collector dissipation	P^C	625	mW
Junction temperature	T^J	150	°C
Storage temperature	T^{stg}	-55~150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector cut-off current	I_{CBO}	$V_{CB}=-35V, I_E=0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5V, I_C=0$	-	-	-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-1V, I_C=-50mA$	96	-	246	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$	-	-0.1	-0.25	V
Base-Emitter voltage	V_{BE}	$V_{CE}=-1V, I_C=-100mA$	-	-0.8	-1.0	V
Transistor frequency	f_T	$V_{CE}=-6V, I_C=-20mA$	150	-	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=-6V, f=1MHz$	-	7	-	pF

* : h_{FE} rank / F : 96~135, G : 118~166, H : 144~202, I : 176~246.

Electrical Characteristic Curves

Fig. 1 $P_c - T_a$

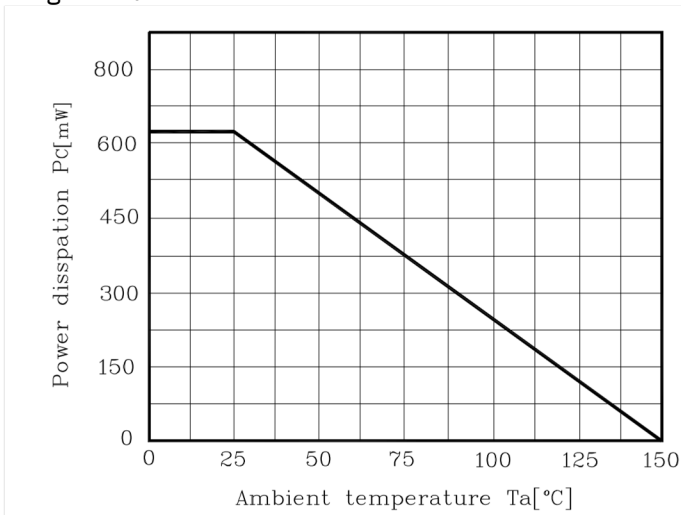


Fig. 2 $I_c - V_{BE}$

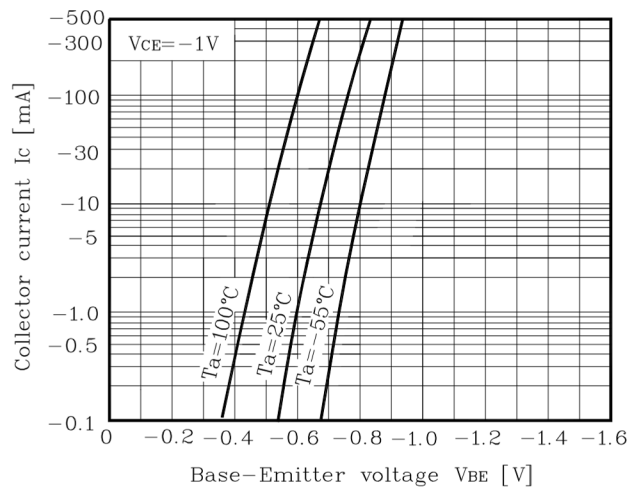


Fig. 3 $I_c - V_{CE}$

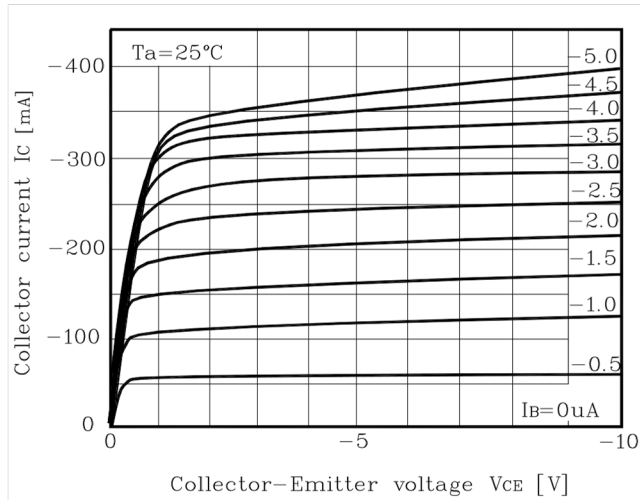


Fig. 4 $V_{CE(sat)} - I_c$

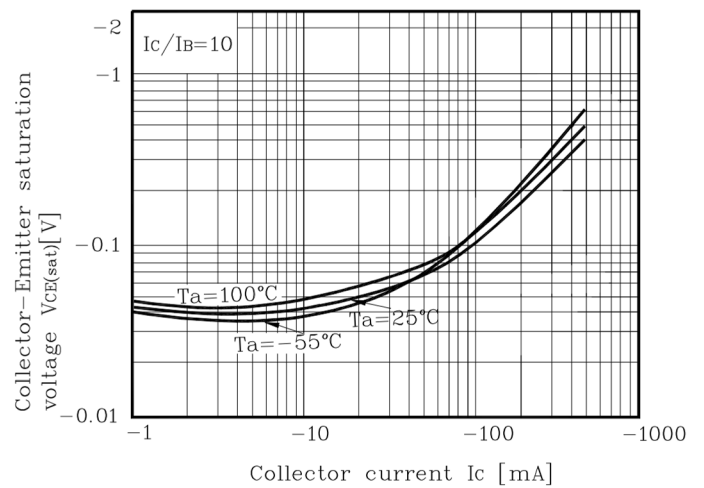


Fig. 5 $h_{FE} - I_c$

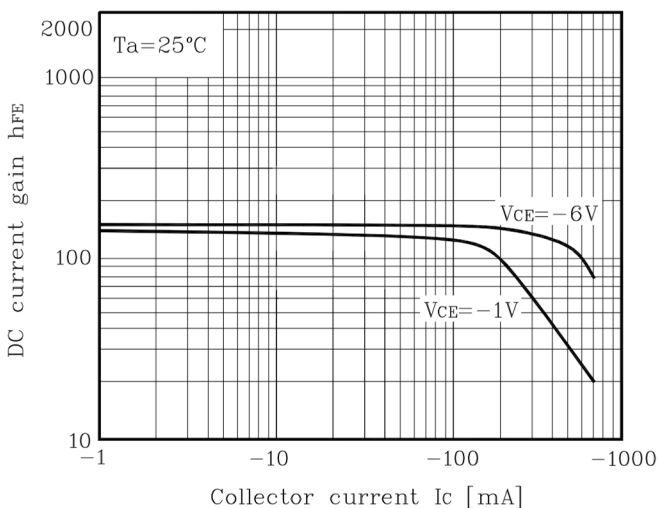


Fig. 6 $h_{FE} - I_c$

