



## **Descriptions**

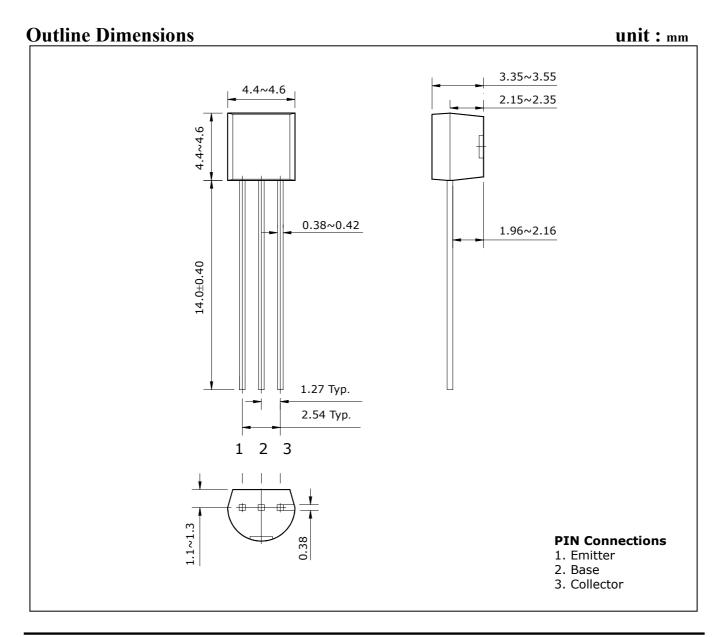
- General purpose application
- Switching application

#### **Features**

- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2222

## **Ordering Information**

Type NO.	Marking	Package Code		
STN2907	STN2907	TO-92		



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Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	-60	V
Collector-Emitter voltage	$V_{CEO}$	-40	V
Emitter-Base voltage	$V_{EBO}$	-5	V
Collector current	$I_{C}$	-600	mA
Collector dissipation	P <sub>C</sub>	625	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55~150	°C

# **Electrical Characteristics**

Ta=25°C

Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV <sub>CBO</sub>	$I_C = -10 \mu A, I_E = 0$	-60	1	-	V
Collector-Emitter breakdown voltage	BV <sub>CEO</sub>	$I_C=-1$ mA, $I_B=0$	-40	ı	ı	V
Emitter-Base breakdown voltage	BV <sub>EBO</sub>	$I_E = -10 \mu A, I_C = 0$	-5	ı	ı	V
Collector cut-off current	$I_{CBO}$	$V_{CB}$ =-50V, $I_{E}$ =0	-	ı	-10	nA
DC current gain	h <sub>FE</sub>	$V_{CE}$ =-10V, $I_{C}$ =-10mA	75	1	ı	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I <sub>C</sub> =-150mA, I <sub>B</sub> =-15mA	-	ı	-0.4	V
Transistor frequency	$f_T$	$V_{CE}$ =-20V, $I_{C}$ =-50mA	250	1	1	MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB}$ =-10V, $I_{E}$ =0, f=1MHz	-	6.0	-	pF

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#### **Electrical Characteristic Curves**

Fig. 1 P<sub>C</sub>-T<sub>a</sub>

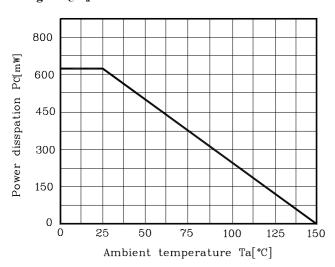


Fig. 3  $I_{\text{C-}}V_{\text{CE}}$ 

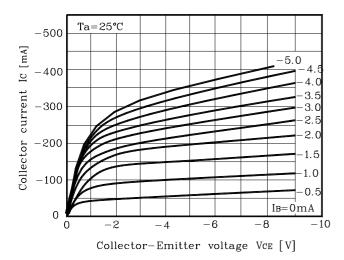


Fig. 5 h<sub>FE</sub>-I<sub>C</sub>

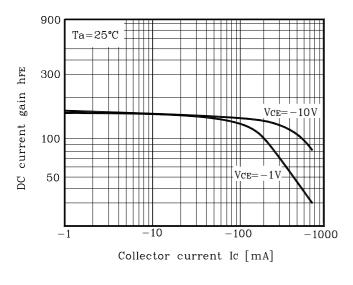


Fig. 2  $I_{\text{C-}}V_{\text{BE}}$ 

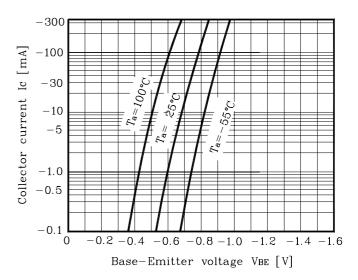


Fig. 4  $V_{\text{CE(sat)-}}I_{\text{C}}$ 

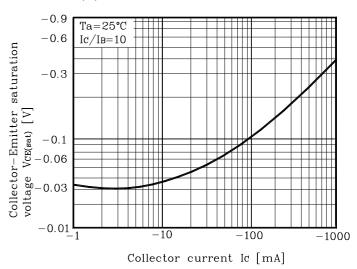
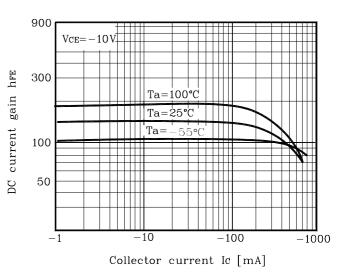


Fig. 6 h<sub>FE</sub>-I<sub>C</sub>



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