



# STN2222

NPN Silicon Transistor

## Descriptions

- General purpose application
- Switching application

## Features

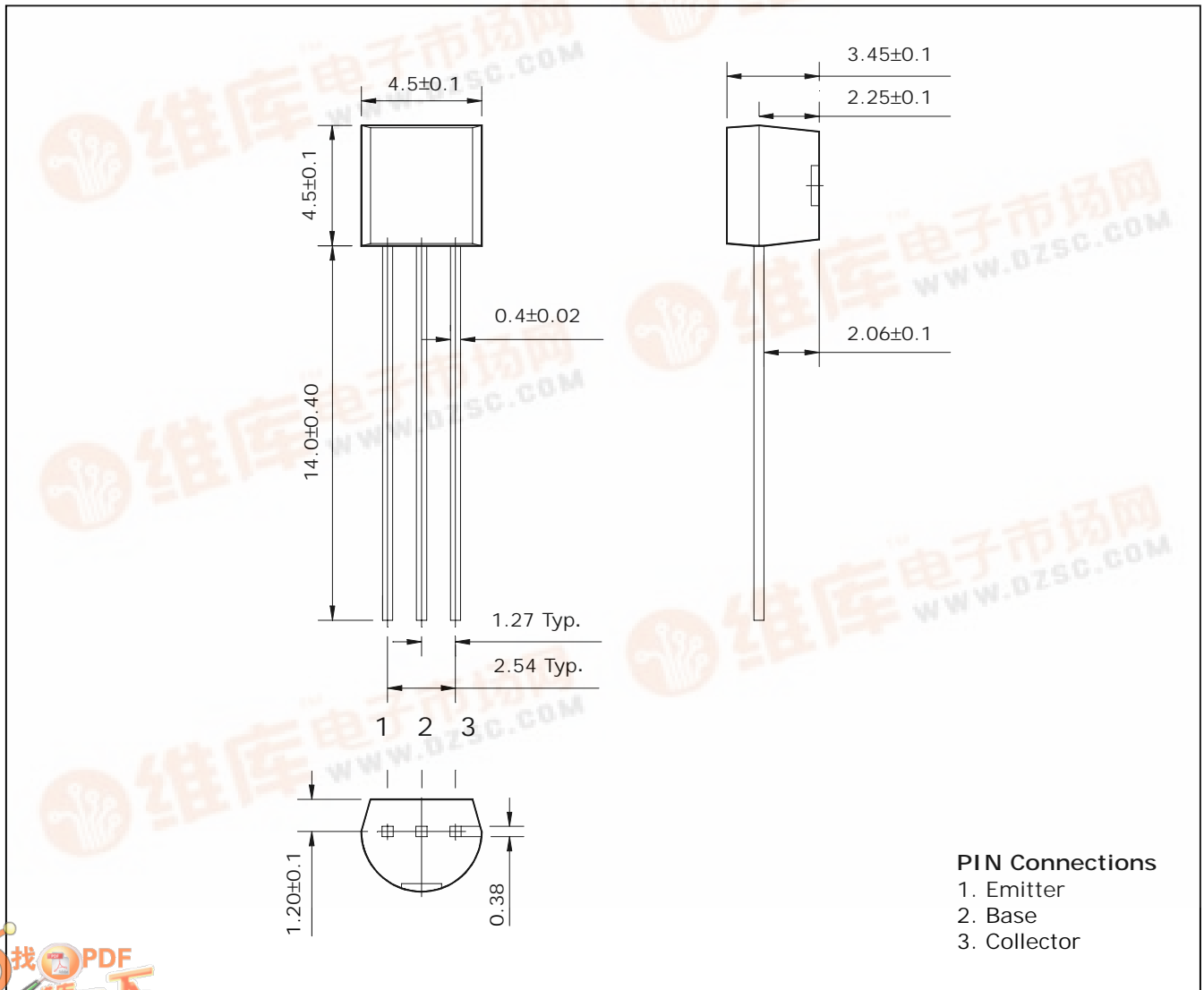
- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2907

## Ordering Information

Type NO.	Marking	Package Code
STN2222	STN2222	TO-92

## Outline Dimensions

unit : mm



**PIN Connections**  
 1. Emitter  
 2. Base  
 3. Collector



## Absolute maximum ratings

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V <sub>CBO</sub>	60	V
Collector-Emitter voltage	V <sub>CEO</sub>	30	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	600	mA
Collector dissipation	P <sub>C</sub>	625	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

## Electrical Characteristics

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV <sub>CBO</sub>	I <sub>C</sub> =10μA, I <sub>E</sub> =0	60	-	-	V
Collector-Emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30	-	-	V
Emitter-Base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5	-	-	V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0	-	-	10	nA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =10mA	75	-	-	-
Collector-Emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =150mA, I <sub>B</sub> =15mA	-	-	0.4	V
Transistor frequency	f <sub>T</sub>	V <sub>CE</sub> =20V, I <sub>C</sub> =20mA	250	-	-	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1  $P_C$ - $T_a$

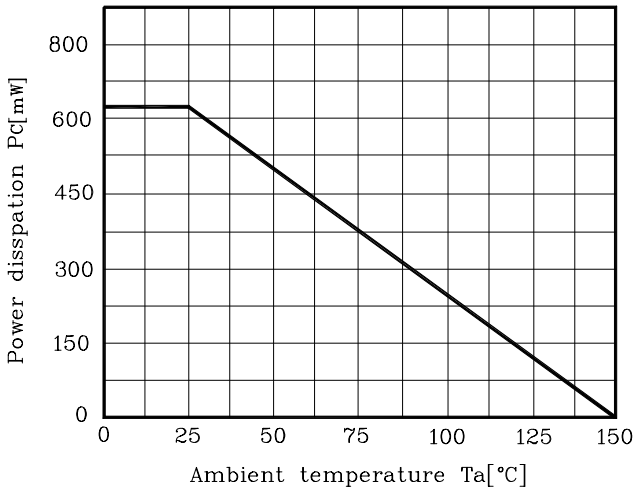


Fig. 2  $I_C$ - $V_{BE}$

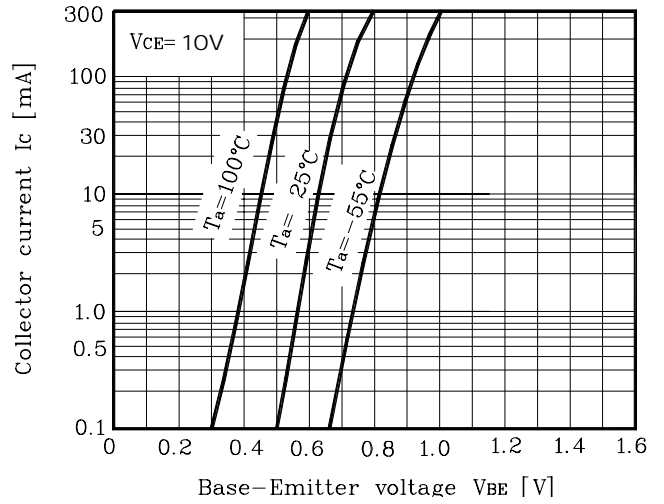


Fig. 3  $I_C$ - $V_{CE}$

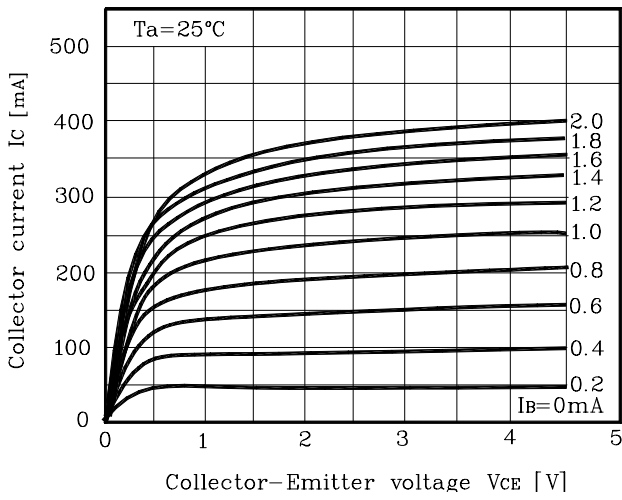


Fig. 4  $V_{CE(sat)}$ - $I_C$

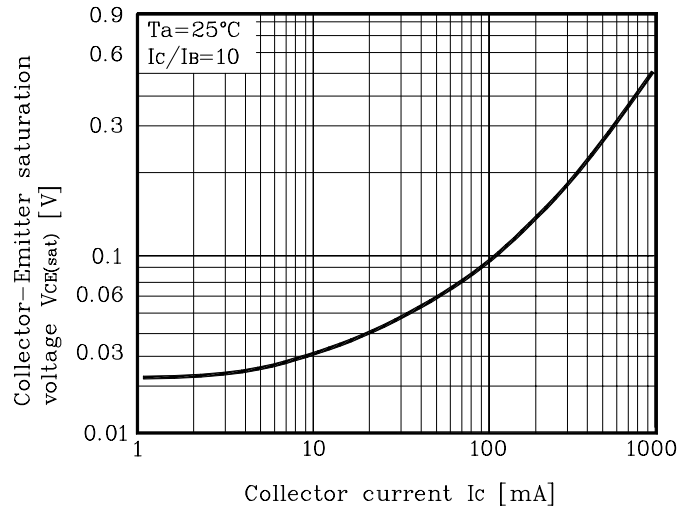


Fig. 5  $h_{FE}$ - $I_C$

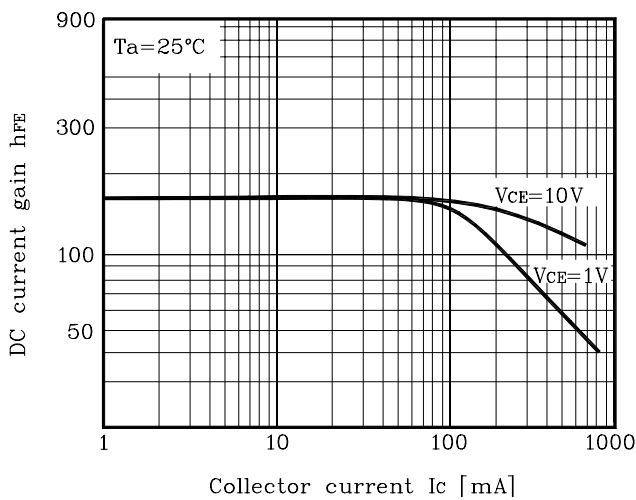


Fig. 6  $h_{FE}$ - $I_C$

