

STN2222S

NPN Silicon Transistor

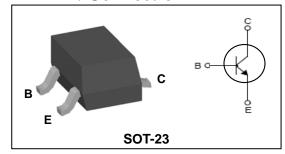
Description

- General purpose application
- Switching application

Features

- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2907S

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
STN2222S	<u>HA</u> <u> </u>	SOT-23

①Device Code ② Year&Week Code

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	60	V
Collector-Emitter voltage	V_{CEO}	30	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	Ic	600	m A
Collector dissipation	P _C *	350	m W
Junction temperature	T_{j}	150	°C
Storage temperature	T_{stg}	-55~ 150	°C

^{* :} Package mounted on 99.5% Alumina $10 \times 8 \times 0.1$

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Collector-Base breakdown voltage	BV _{CBO}	I _C = 10μA, I _E = 0	60	-	-	V
Collector-Emitter breakdown voltage	BV _{CEO}	$I_{C} = 10 \text{ m A}, I_{B} = 0$	30	-	-	V
Emitter-Base breakdown voltage	BV _{EBO}	I _E = 10μA, I _C = 0	5	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} = 60 V, I _E = 0	-	-	10	nA
DC current gain	h _{FE}	V _{CE} = 10V, I _C = 10m A	75	-		-
Collector-Emitter saturation voltage	V _{CE(sat)}	I _C = 150mA, I _B = 15mA	-		0.4	V
Transition frequency	f _T	V _{CE} = 20V, I _C = 20m A	250	1	-	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f= 1MHz	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1 Pc - Ta

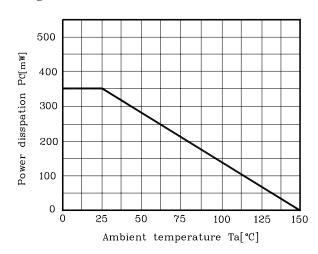


Fig. 2 I_{C} - V_{BE}

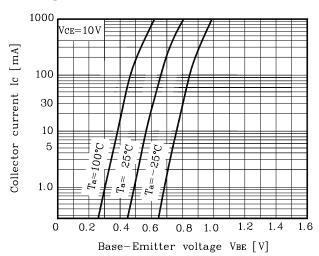


Fig. 3 I_{C} - V_{CE}

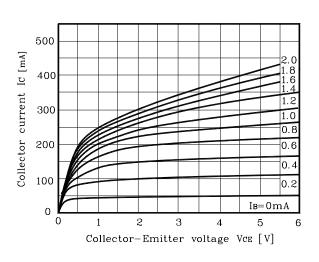


Fig. 4 $V_{CE(SAT)}$ - I_C

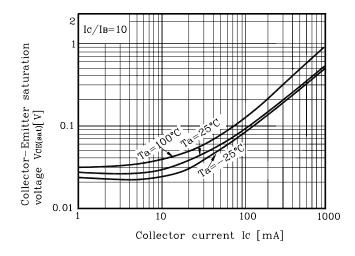
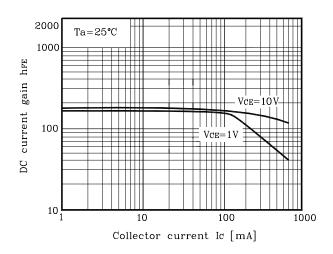
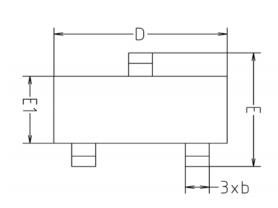


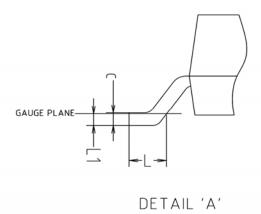
Fig. 5 h_{FE} - I_{C}

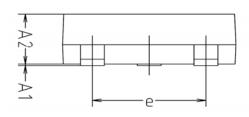


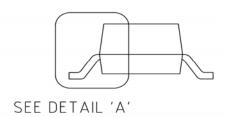
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Outline Dimension



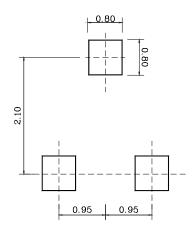






SYMBOL	MILLIMETERS			NOTE	
3111000	MINIMUM	NOMINAL	MAXIMUM	NOTE	
A1	0.00	-	0.10		
A2	0.82	-	1.02		
Ь	0.39	0.42	0.45		
С	0.09	0.12	0.15		
D	2.80	2.90	3.00		
Е	2.20	2.40	2.60		
E1	1.20	1.30	1.40		
е	1.90BSC				
L	0.20	-	-		
L1	0.12BSC				

*Recommend PCB solder land [Unit: mm]



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