

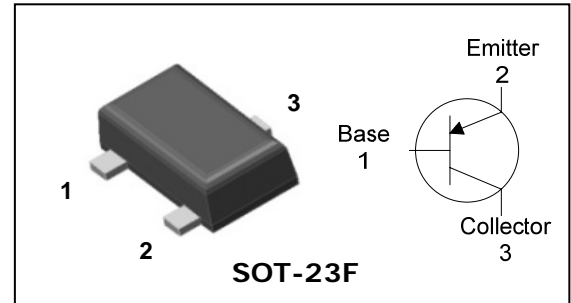
## Descriptions

- General purpose application
- Switching application

## Features

- Large collector current
- Low collector saturation voltage
- Complementary pair with STN2222ASF

## PIN Connection



## Ordering Information

Type NO.	Marking	Package Code
STN2907ASF	WA □ ① ②	SOT-23F

① Device 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	$V_{CEO}$	-50	V
Emitter-Base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-600	mA
Collector dissipation	$P_C^*$	350	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

\* : Package mounted on 99.5% Alumina 10×8×0.1mm.

## Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C = -10\mu A, I_E = 0$	-60	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C = -10mA, I_B = 0$	-50	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_E = -10\mu A, I_C = 0$	-5	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -60V, I_E = 0$	-	-	-10	nA
DC current gain	$h_{FE}$	$V_{CE} = -10V, I_C = -10mA$	75	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -150mA, I_B = -15mA$	-	-	-0.4	V
Transition frequency	$f_T$	$V_{CE} = -20V, I_C = -20mA$	250	-	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1  $P_C - T_a$

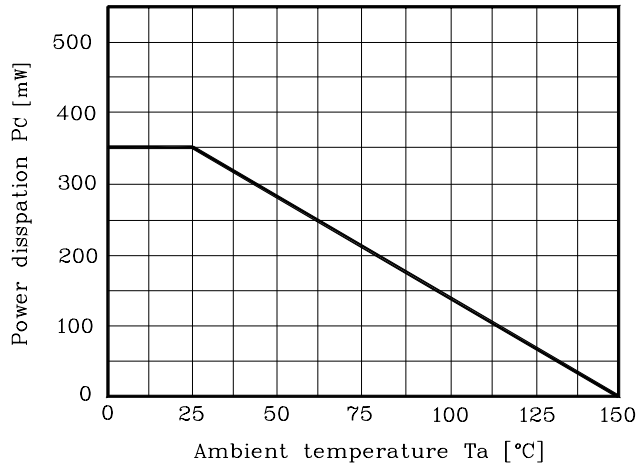


Fig. 2  $I_C - V_{BE}$

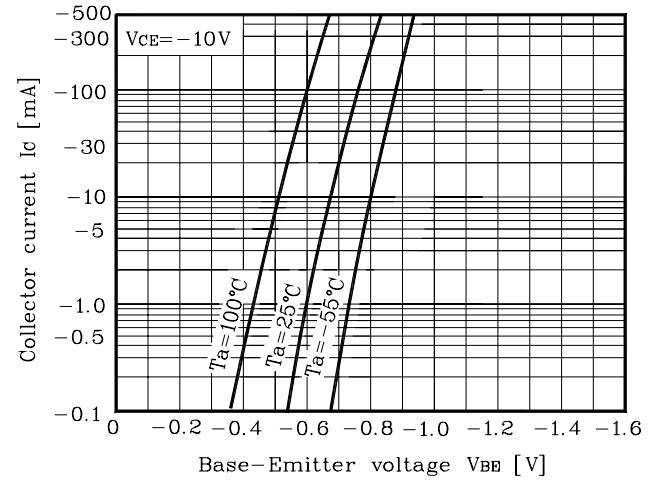


Fig. 3  $I_C - V_{CE}$

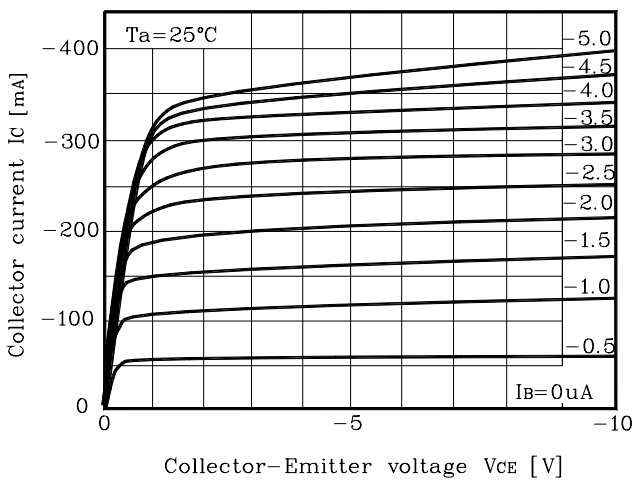


Fig. 4  $V_{CE(sat)} - I_C$

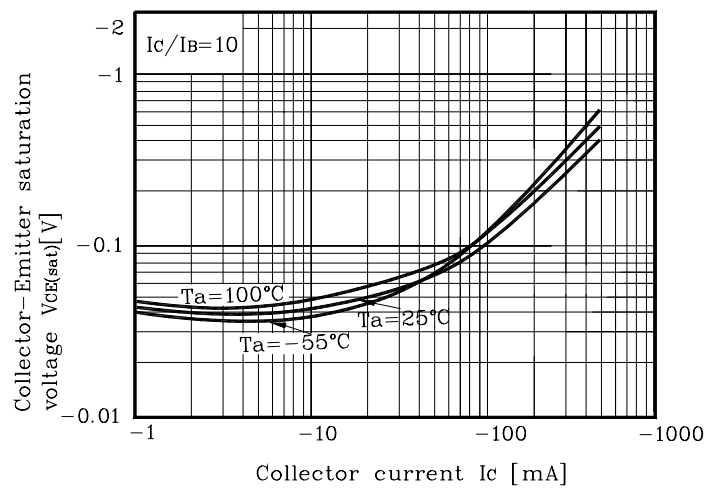


Fig. 5  $h_{FE} - I_C$

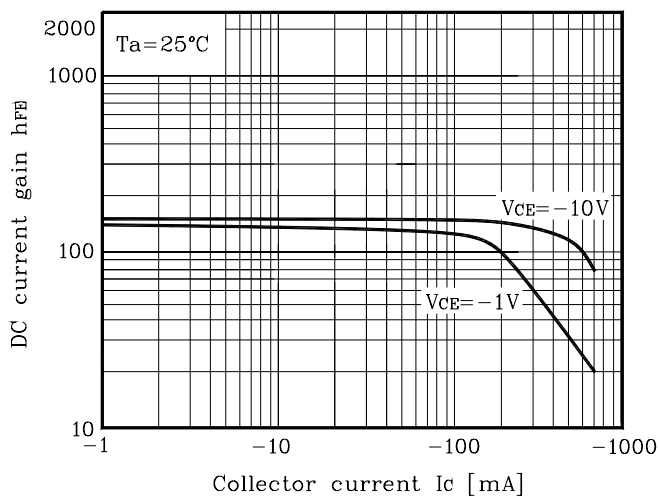
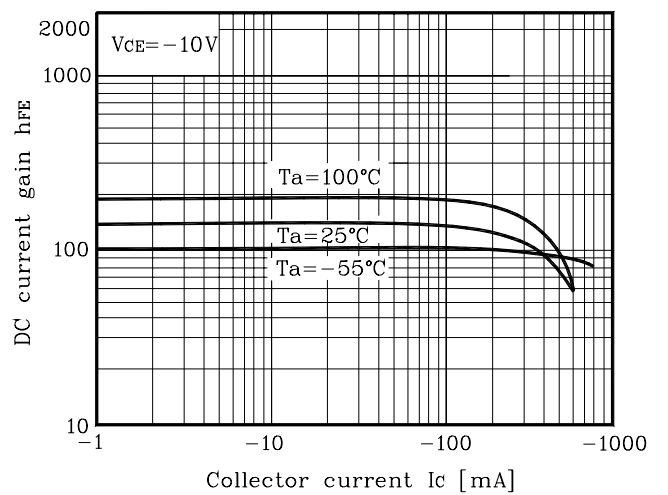
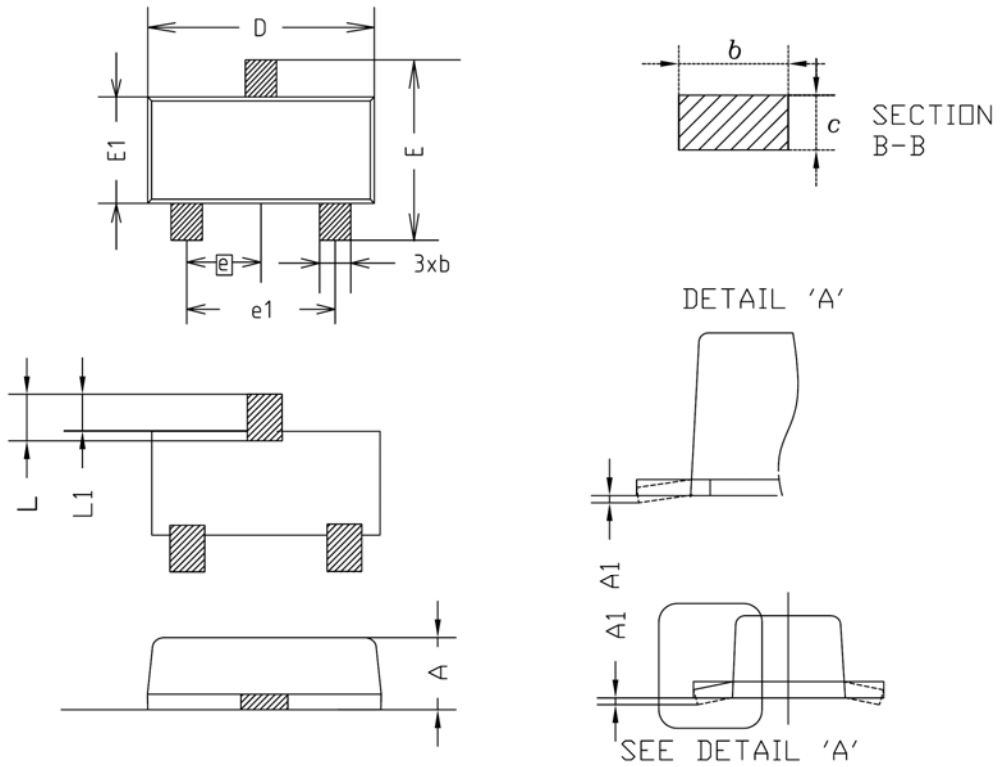


Fig. 6  $h_{FE} - I_C$

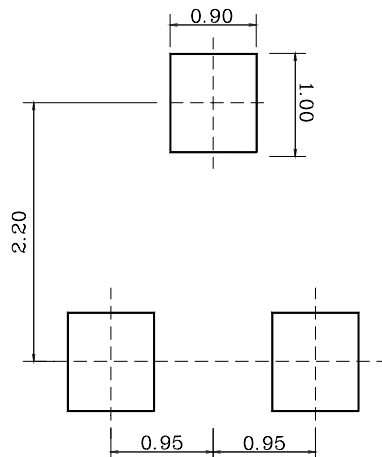


## Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.80	0.90	1.00	
A1	0.00	-	0.10	
b	0.35	0.40	0.45	
c	0.10	0.15	0.20	
D	2.80	2.90	3.00	
E	2.30	2.40	2.50	
E1	1.50	1.60	1.70	
e	0.95BSC			
e1	1.80	1.90	2.00	
L	0.48	0.58	0.68	
L1	0.30	-	0.50	

※Recommend PCB solder land [Unit: mm]



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