

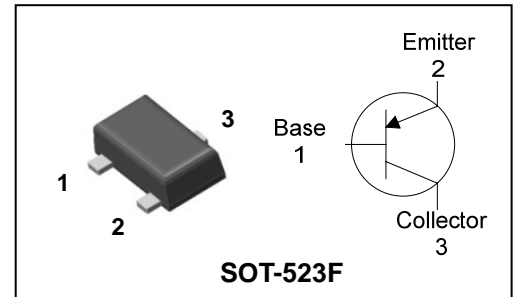
## Descriptions

- General purpose application
- Switching application

## Features

- Large collector current
- Low collector saturation voltage

## PIN Connection



## Ordering Information

Type NO.	Marking	Package Code
STN2907AEF	$\overline{\text{GT}}$ $\square$ ① ②	SOT-523F

① Device Code ② Year&Week Code

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base voltage	$V_{CBO}$	-55	V
Collector-Emitter voltage	$V_{CEO}$	-50	V
Emitter-Base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-600	mA
Collector Power dissipation	$P_C^*$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

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

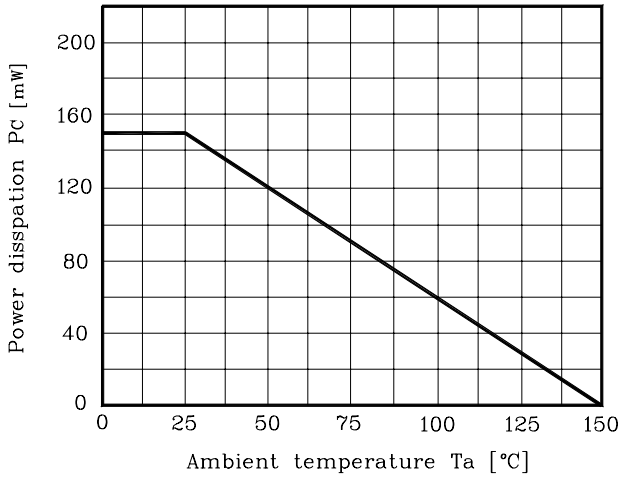
## Electrical Characteristics

(Ta=25°C)

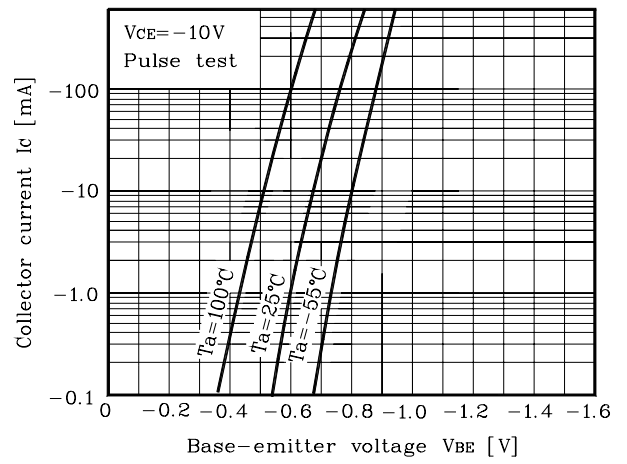
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C = -10\text{mA}$ , $I_B = 0$	-50	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -55\text{V}$ , $I_E = 0$	-	-	-10	nA
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{V}$ , $I_E = 0$	-	-	-10	nA
DC current gain	$h_{FE}$	$V_{CE} = -10\text{V}$ , $I_C = -10\text{mA}$	75	-	-	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -150\text{mA}$ , $I_B = -15\text{mA}$	-	-	-0.4	V
Transition frequency	$f_T$	$V_{CE} = -5\text{V}$ , $I_C = -20\text{mA}$	250	-	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}$ , $I_E = 0$ , $f = 1\text{MHz}$	-	6.0	-	pF

## Electrical Characteristic Curves

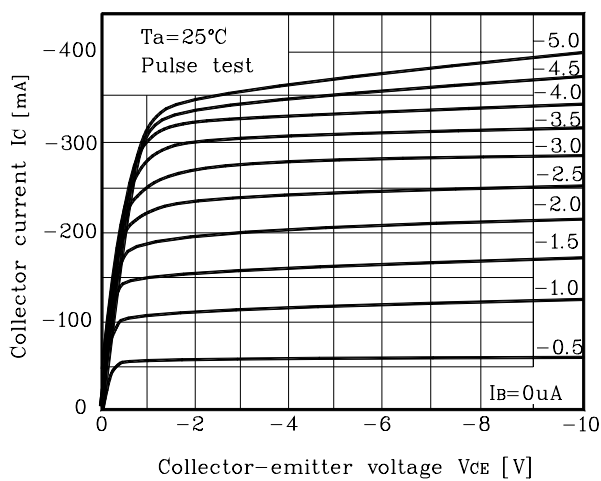
**Fig. 1  $P_C - T_a$**



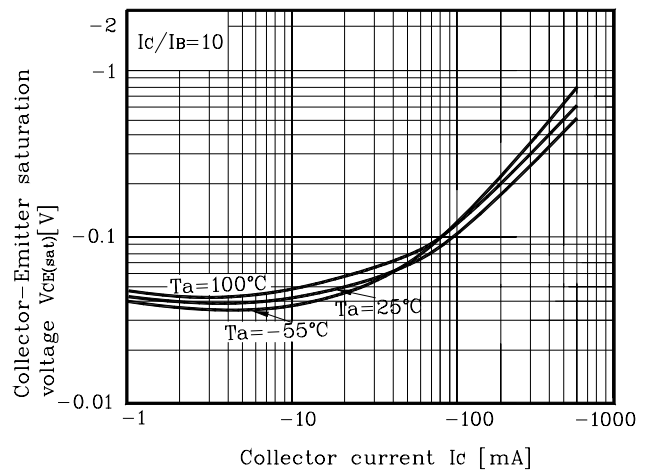
**Fig. 2  $I_C - V_{BE}$**



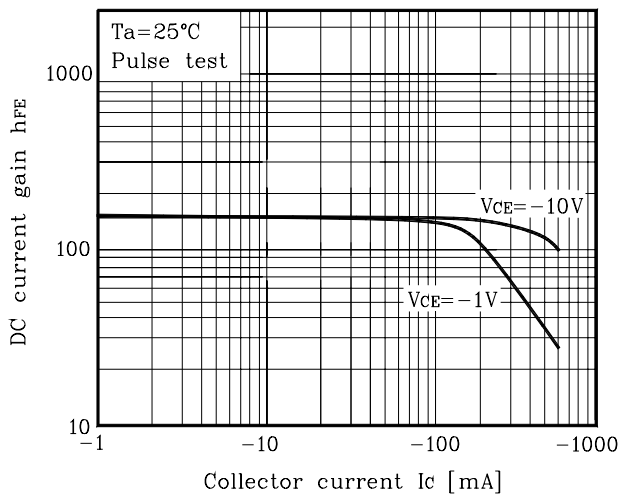
**Fig. 3  $I_C - V_{CE}$**



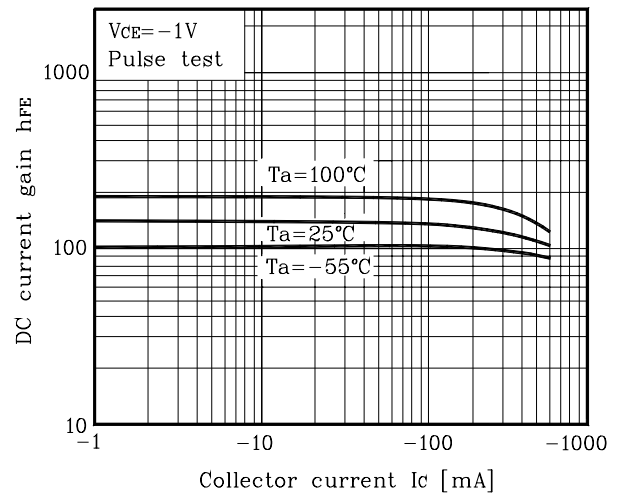
**Fig. 4  $V_{CE(sat)} - I_C$**



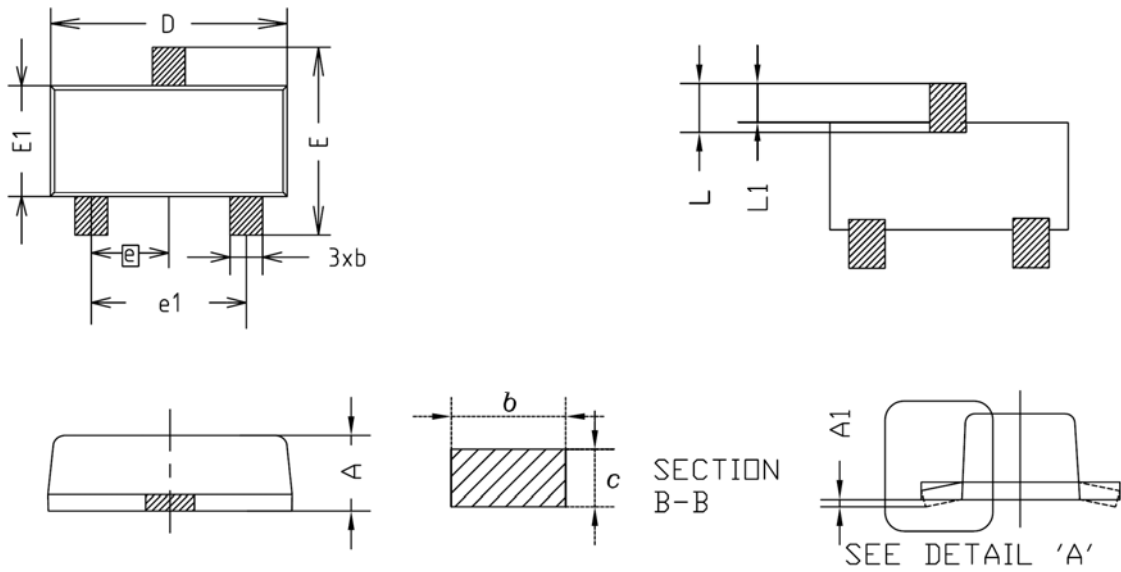
**Fig. 5  $h_{FE} - I_C$**



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

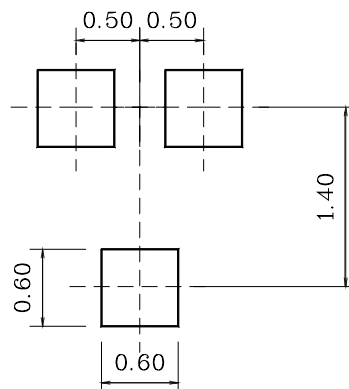


## Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.63	0.68	0.73	
A1	0.00	-	0.10	
A2	-	-	-	
b	0.25	0.30	0.35	
c	0.04	0.11	0.20	
D	1.50	1.60	1.70	
E	1.50	1.60	1.70	
E1	0.78	0.88	0.98	
e	0.50BSC			
e1	0.90	-	1.10	
L	0.34	0.44	0.54	
L1	0.28	0.34	0.43	

※Recommend PCB solder land [Unit: mm]



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