

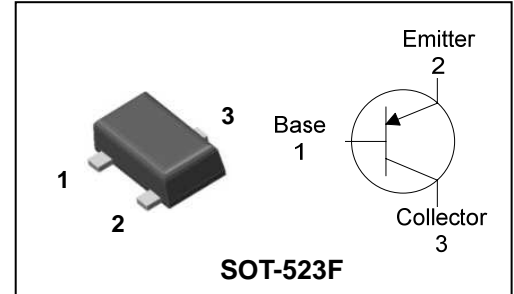
Descriptions

- 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}	$I_{\text{C}} = -10\text{mA}$, $I_{\text{B}} = 0$	-50	-	-	V
Collector cut-off current	I_{CBO}	$V_{\text{CB}} = -55\text{V}$, $I_{\text{E}} = 0$	-	-	-10	nA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}} = -5\text{V}$, $I_{\text{E}} = 0$	-	-	-10	nA
DC current gain	h_{FE}	$V_{\text{CE}} = -10\text{V}$, $I_{\text{C}} = -10\text{mA}$	75	-	-	-
Collector-Emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -150\text{mA}$, $I_{\text{B}} = -15\text{mA}$	-	-	-0.4	V
Transition frequency	f_{T}	$V_{\text{CE}} = -5\text{V}$, $I_{\text{C}} = -20\text{mA}$	250	-	-	MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}} = -10\text{V}$, $I_{\text{E}} = 0$, $f = 1\text{MHz}$	-	6.0	-	pF

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

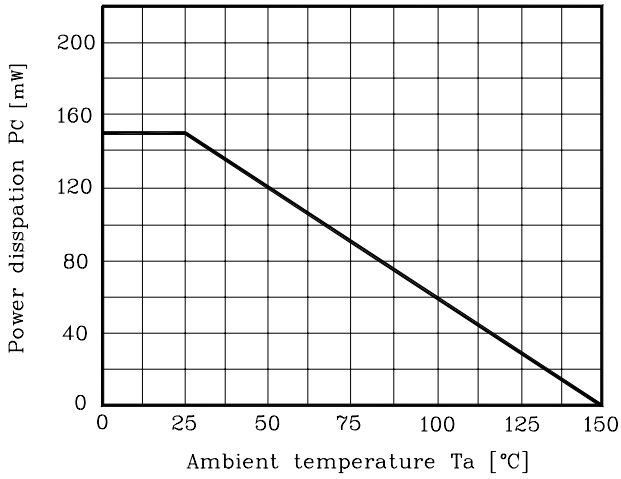


Fig. 2 $I_C - V_{BE}$

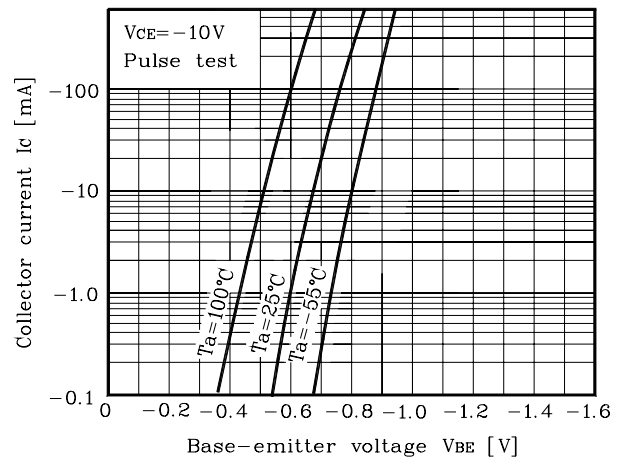


Fig. 3 $I_C - V_{CE}$

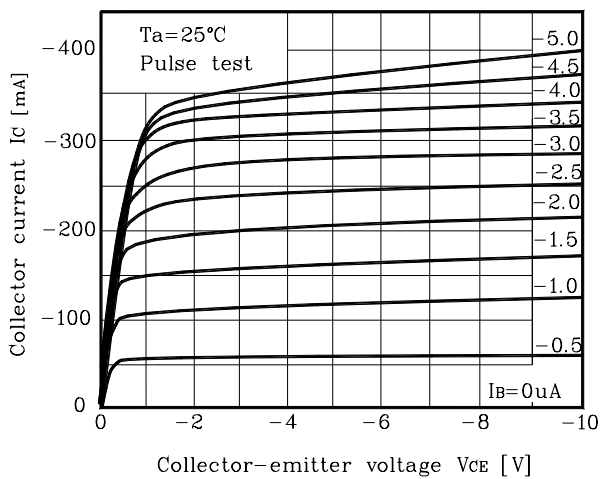


Fig. 4 $V_{CE(sat)} - I_C$

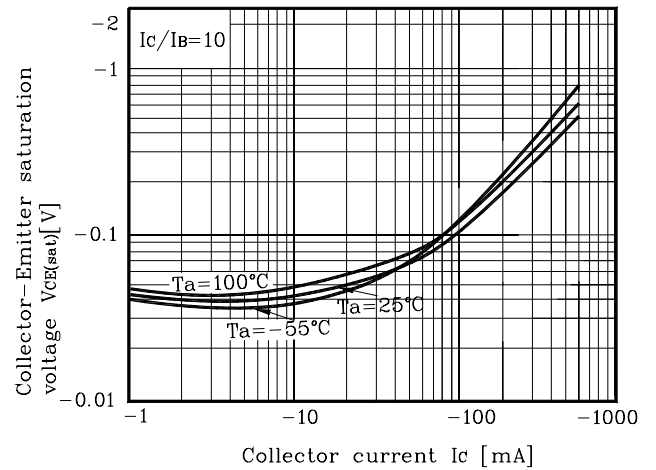


Fig. 5 $h_{FE} - I_C$

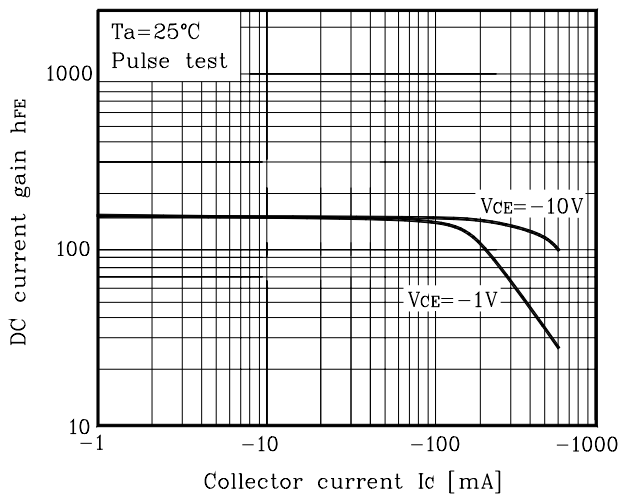
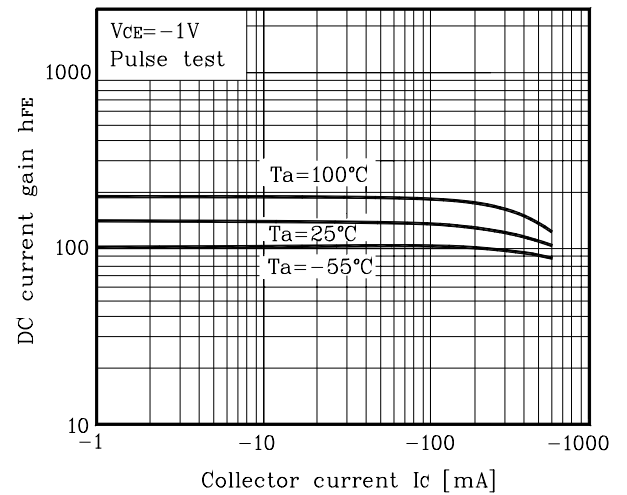
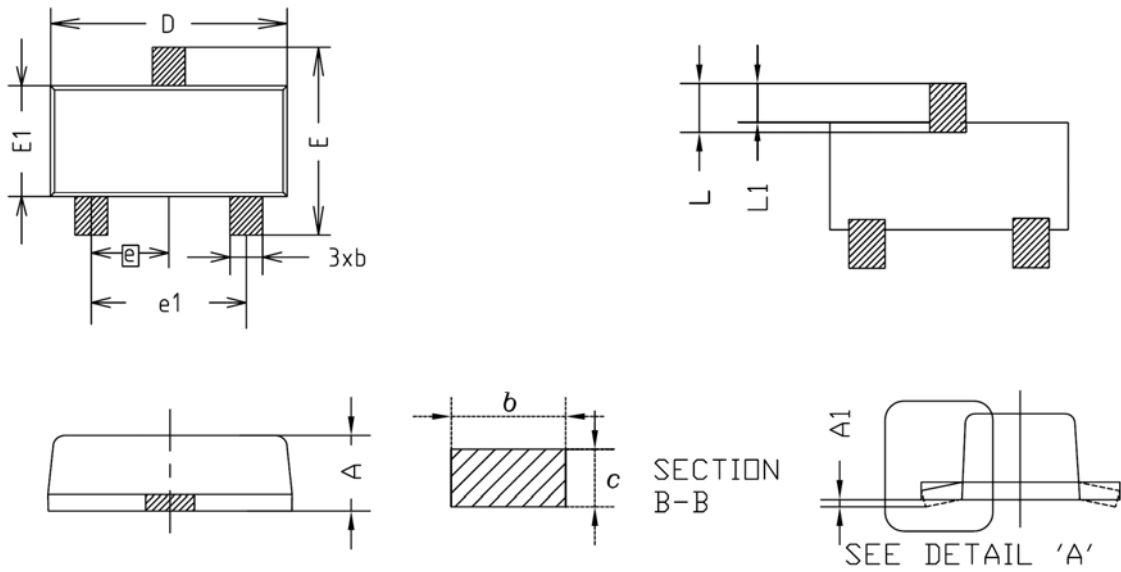


Fig. 6 $h_{FE} - I_C$

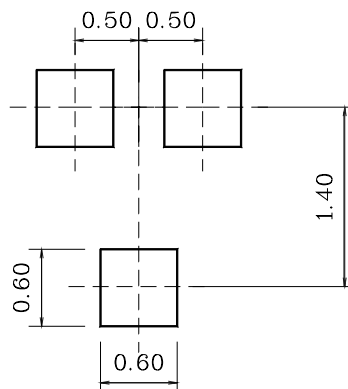


Outline Dimension



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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