

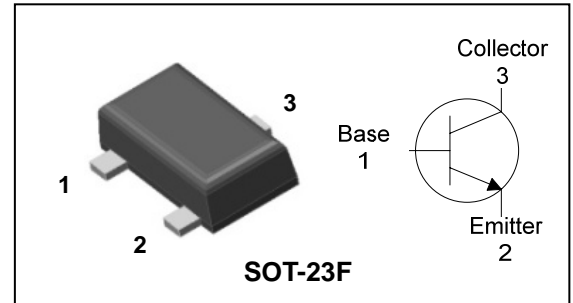
## Description

- Medium power amplifier


## Features

- Large collector current :  $I_C=500\text{mA}$
- Low collector saturation voltage enabling low-voltage operation
- Complementary pair with 2SA1979SF

## PIN Connection



## Ordering Information

Type NO.	Marking	Package Code
2SC5342SF	BA  ① ② ③	SOT-23F

①Device Code ②hFE Rank ③Year&Week Code

## Absolute maximum ratings

( $T_a=25^\circ\text{C}$ )

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	$V_{CBO}$	40	V
Collector-Emitter voltage	$V_{CEO}$	32	V
Emitter-Base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	500	mA
Collector dissipation	$P_C$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$

## Electrical Characteristics

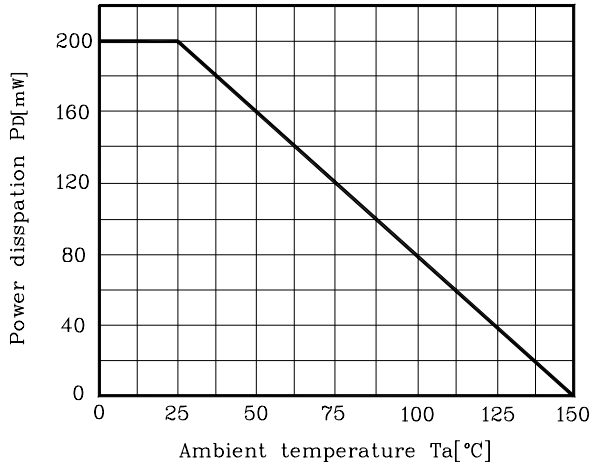
( $T_a=25^\circ\text{C}$ )

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	$BV_{CBO}$	$I_C=100\mu\text{A}$ , $I_E=0$	40	-	-	V
Collector-Emitter breakdown voltage	$BV_{CEO}$	$I_C=1\text{mA}$ , $I_B=0$	32	-	-	V
Emitter-Base breakdown voltage	$BV_{EBO}$	$I_E=10\mu\text{A}$ , $I_C=0$	5	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40\text{V}$ , $I_E=0$	-	-	0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$	-	-	0.1	$\mu\text{A}$
DC current gain	$h_{FE}^*$	$V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	70	-	240	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$ , $I_B=10\text{mA}$	-	-	0.25	V
Transition frequency	$f_T$	$V_{CE}=6\text{V}$ , $I_C=20\text{mA}$	-	300	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=6\text{V}$ , $I_E=0$ , $f=1\text{MHz}$	-	7.0	-	pF

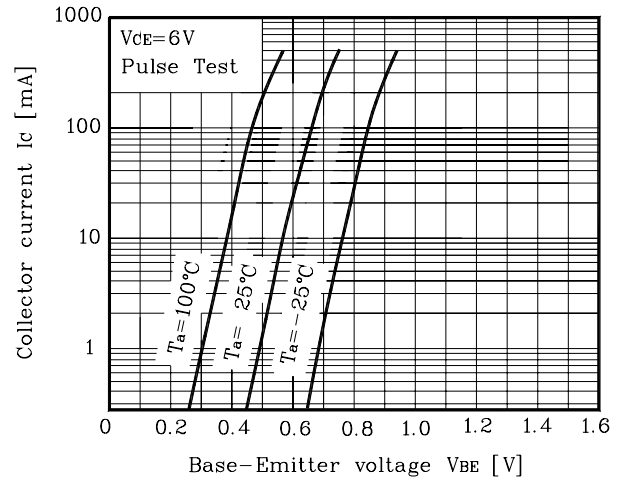
\* :  $h_{FE}$  Rank / O : 70~140, Y : 120~240

## Electrical Characteristic Curves

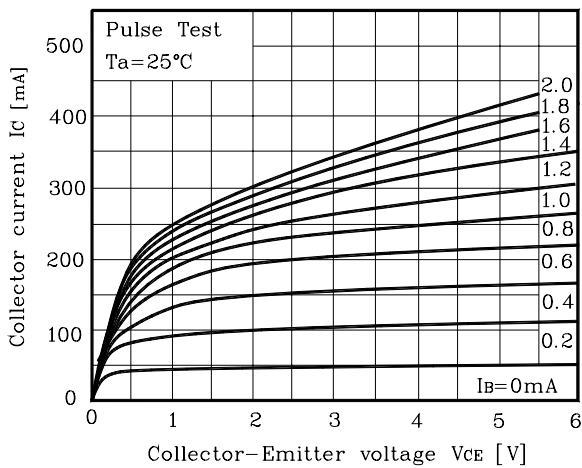
**Fig. 1  $P_c - T_a$**



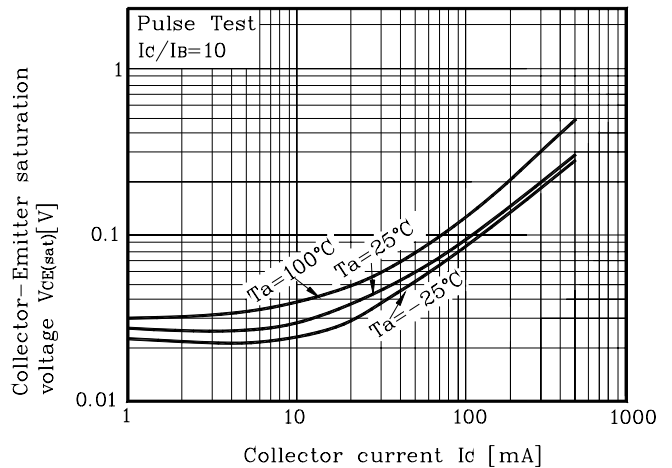
**Fig. 2  $I_C - V_{BE}$**



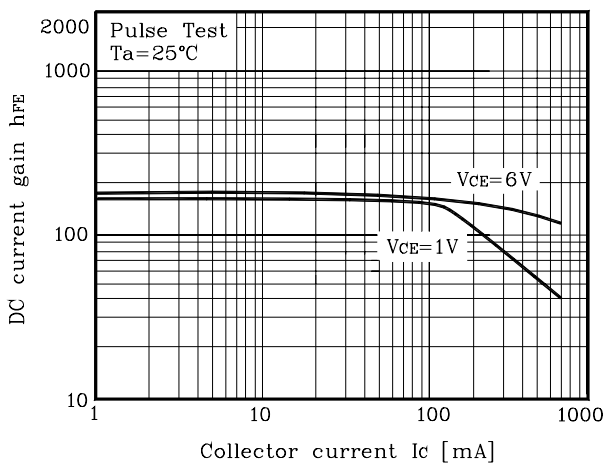
**Fig. 3  $I_C - V_{CE}$**



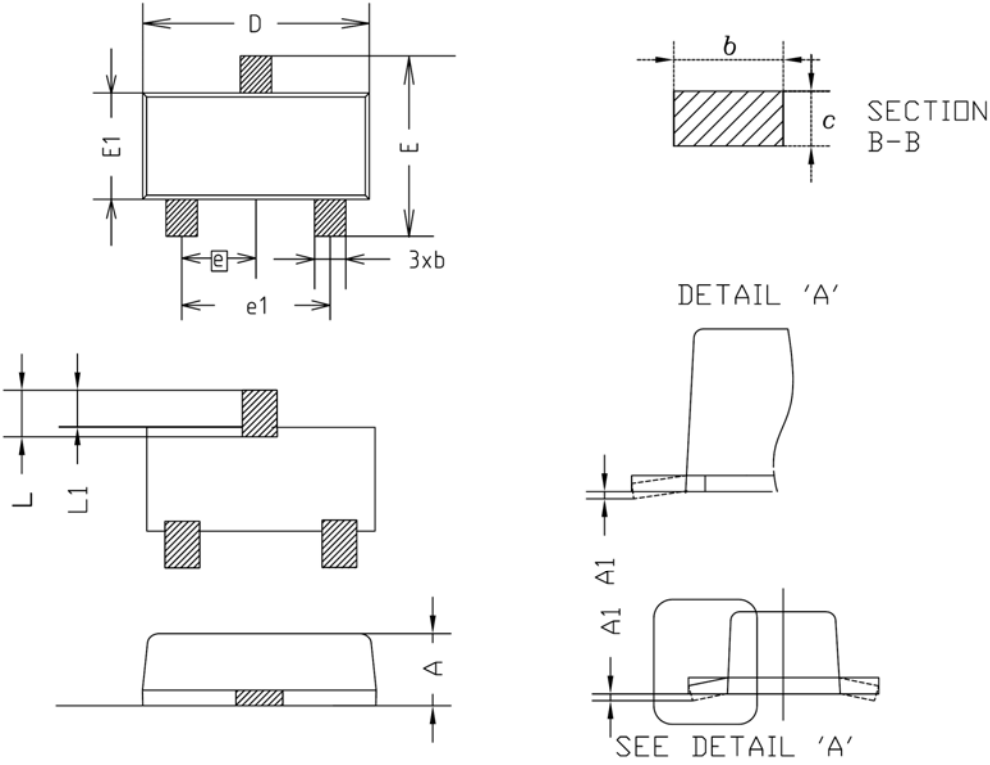
**Fig. 4  $V_{CE(SAT)} - I_C$**



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

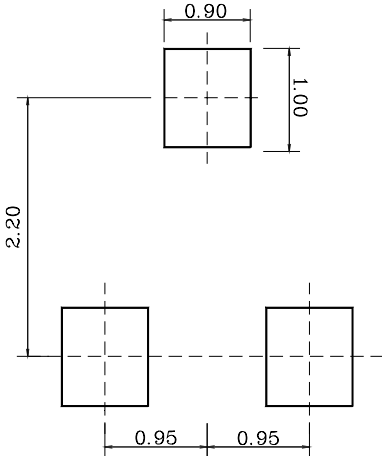


Outline Dimension



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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