

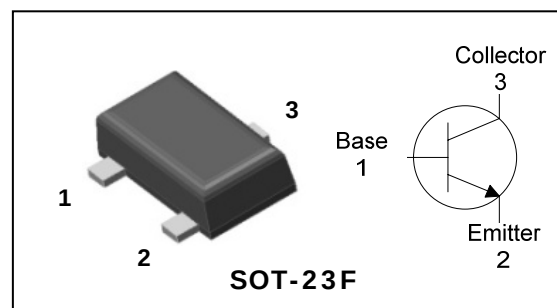
Description

- General small signal amplifier

Features

- Low collector saturation voltage :
 $V_{CE} = 0.25V(\text{Max.})$
- Low output capacitance : $C_{ob} = 2pF(\text{Typ.})$
- Complementary pair with 2SA1980SF

PIN Connection



Ordering Information

Type NO.	Marking	Package Code
2SC5343SF	DA □ □ ① ② ③	SOT-23F

① Device Code ② hFE Rank ③ Year&Week Code

Absolute maximum ratings

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

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	150	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}	$I_C = 100\mu\text{A}, I_E = 0$	60	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = 1\text{mA}, I_B = 0$	50	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$	-	-	0.1	μA
DC current gain	h_{FE}^*	$V_{CE} = 6V, I_C = 2\text{mA}$	70	-	700	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{mA}, I_B = 10\text{mA}$	-	-	0.25	V
Transistion frequency	f_T	$V_{CE} = 10V, I_C = 1\text{mA}$	80	-	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1\text{MHz}$	-	2	3.5	pF
Noise figure	NF	$V_{CE} = 6V, I_C = 0.1\text{mA}, f = 1\text{KHz}, R_g = 10K\Omega$	-	-	10	dB

* : h_{FE} rank / O : 70 ~ 140, Y : 120 ~ 240, G : 200 ~ 400, L : 300 ~ 700

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

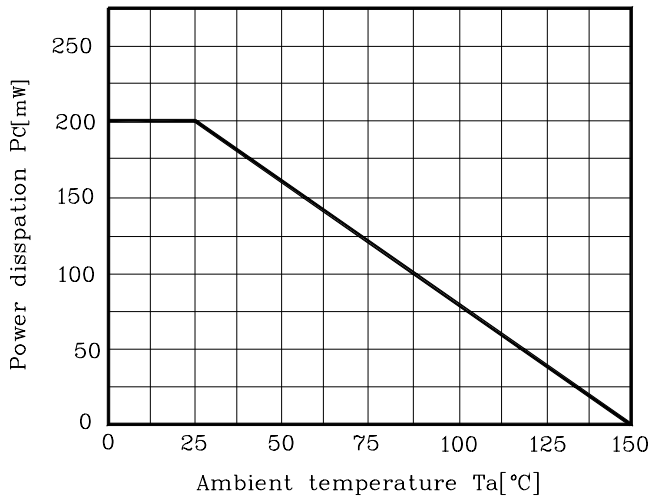


Fig. 2 $I_C - V_{BE}$

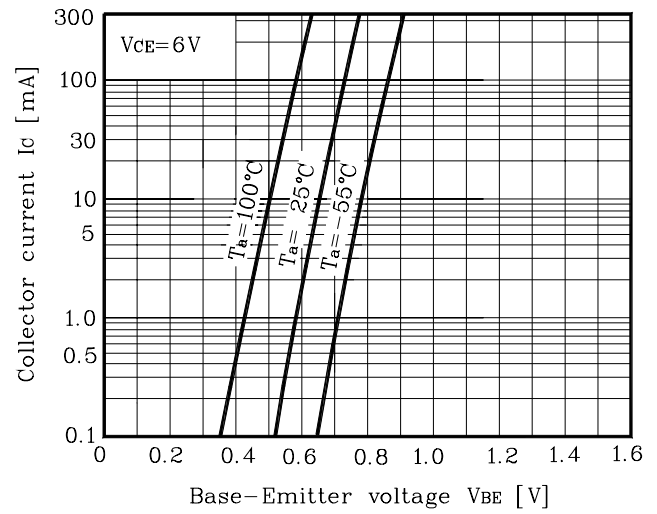


Fig. 3 $I_C - V_{CE}$

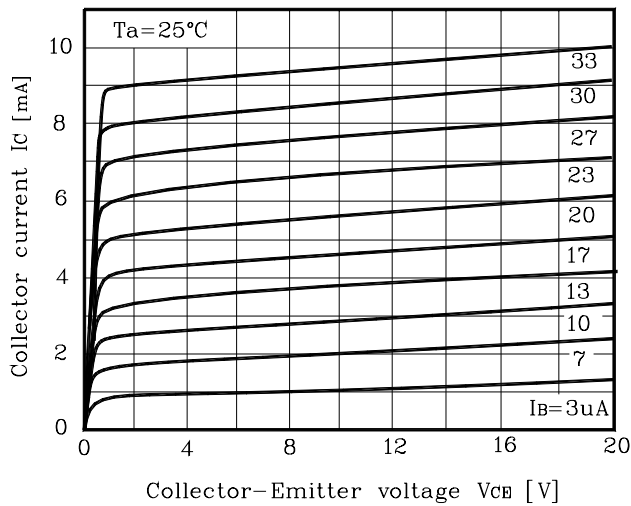


Fig. 4 $h_{FE} - I_C$

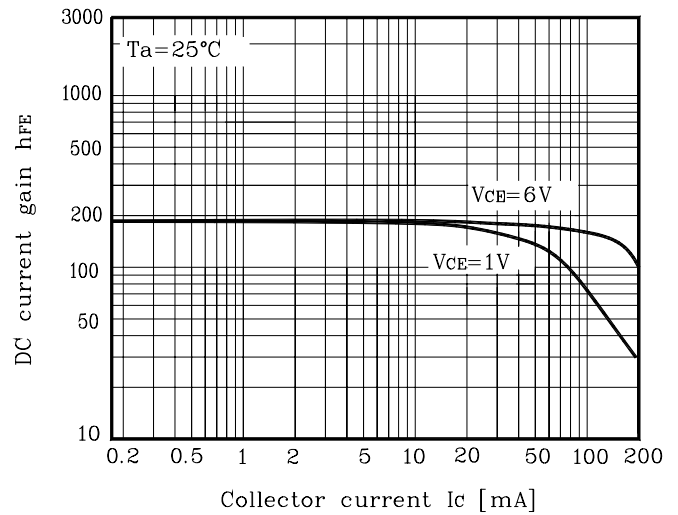
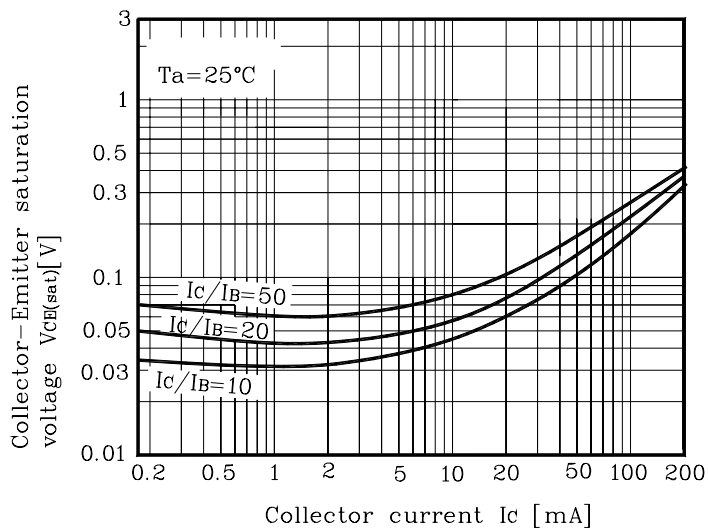
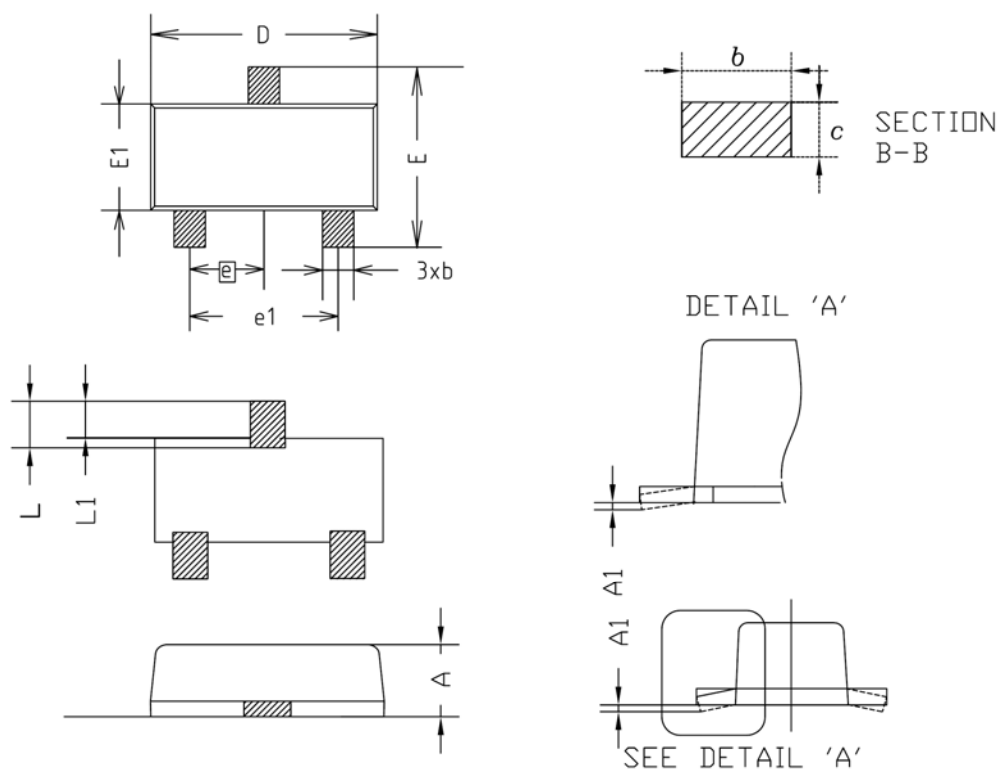


Fig. 5 $V_{CE(sat)} - I_C$

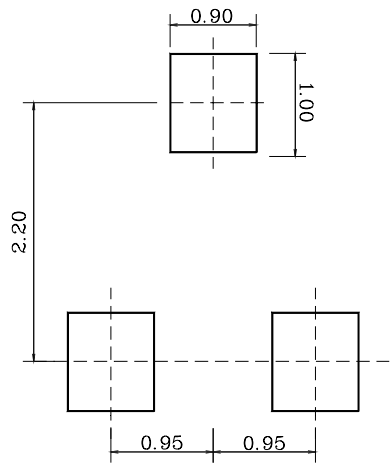


Outline Dimension



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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