

GENERAL SMALL SIGNAL AMPLIFIER

Features

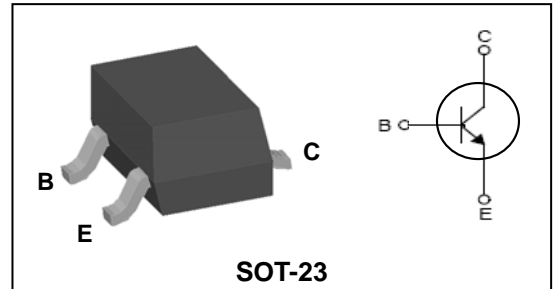
- Low collector saturation voltage : $V_{CE}=0.25V(\text{Max.})$
- Low output capacitance : $C_{ob}=2pF(\text{Typ.})$
- Complementary pair with 2SA1980S

Ordering Information

Type No.	Marking	Package Code
2SC5343S	DA □ □ ① ② ③	SOT-23

① Device Code ② hFE Rank ③ Year&Week Code

PIN Connection



Absolute Maximum Ratings

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

Characteristic	Symbol	Rating	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 power dissipation	P_C^*	350	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

* Package mounted on 99.5% alumina $10 \times 8 \times 0.6\text{mm}$

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
Collector-Emitter breakdown voltage	BV_{EBO}	$I_E=10\mu\text{A}, I_C=0$	5	-	-	
Collector cut-off current	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$	-	-	0.6	μA
	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$	-	-	0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	-	-	0.1	μA
DC current gain	h_{FE}^*	$V_{CE}=6\text{V}, I_C=2\text{mA}$	70	-	700	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$	-	-	0.25	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=1\text{mA}$	-	80	-	MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	-	2	-	pF
Noise figure	NF	$V_{CE}=6\text{V}, I_C=0.1\text{mA}, f=1\text{KHz}, R_g=10\text{K}\Omega$	-	10	-	dB

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

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

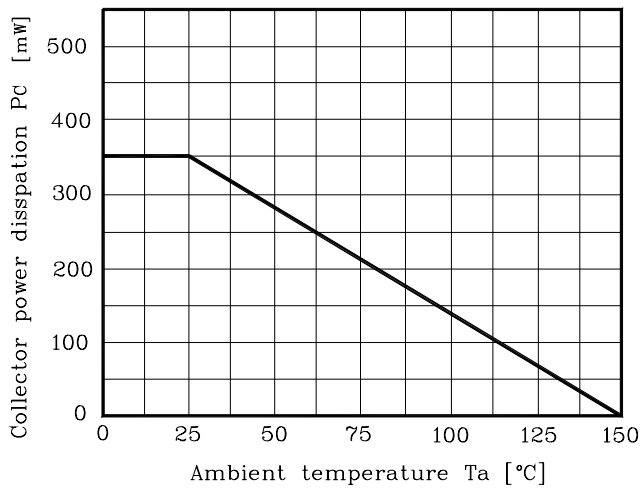


Fig. 2 $I_C - V_{BE}$

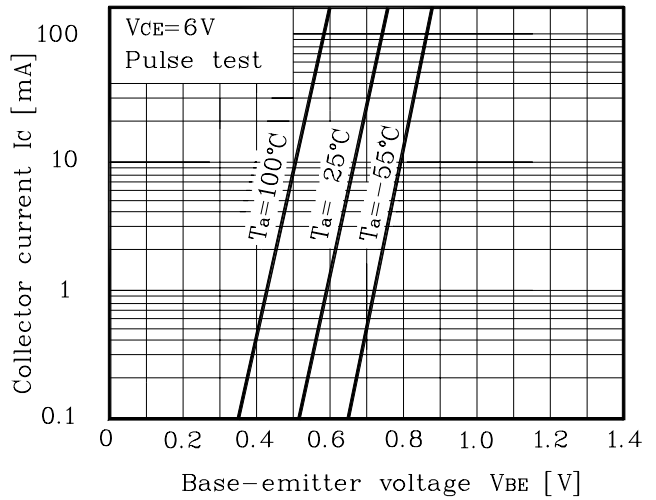


Fig. 3 $I_C - V_{CE}$

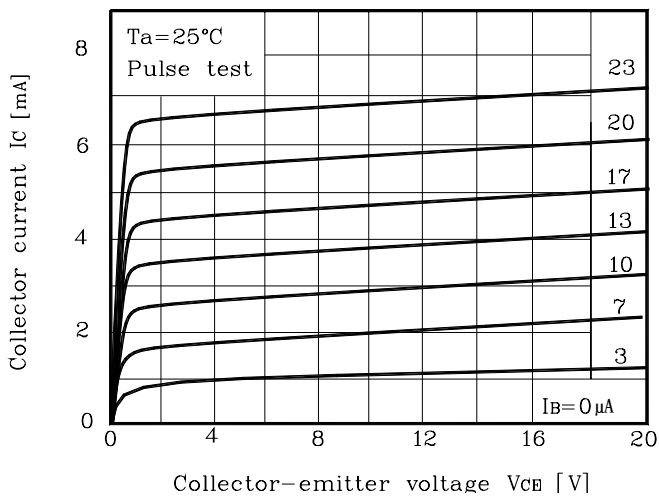


Fig. 4 $h_{FE} - I_C$

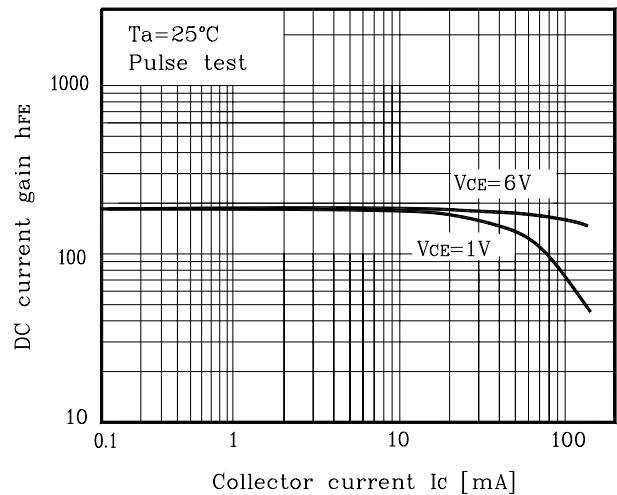


Fig. 5 $V_{CE(sat)} - I_C$

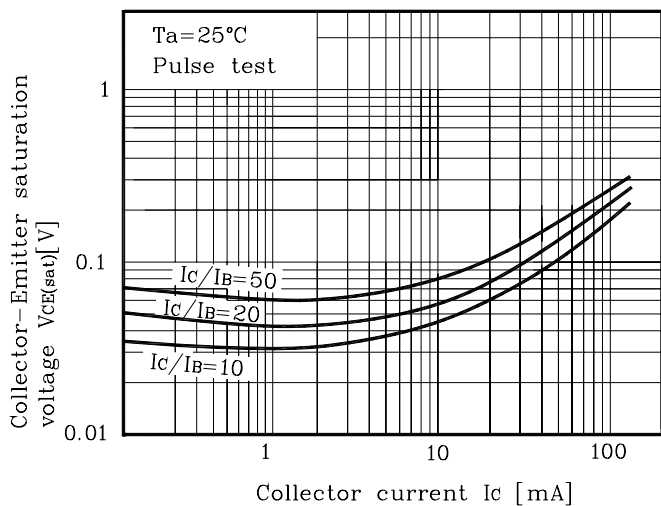
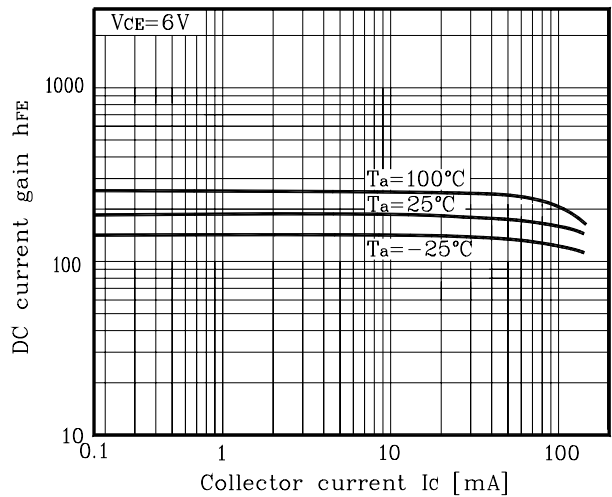
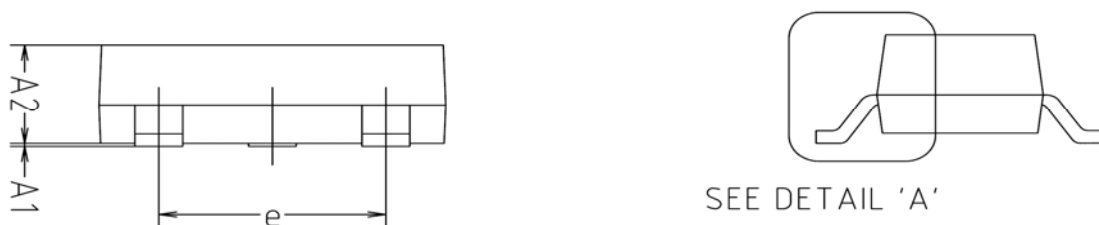
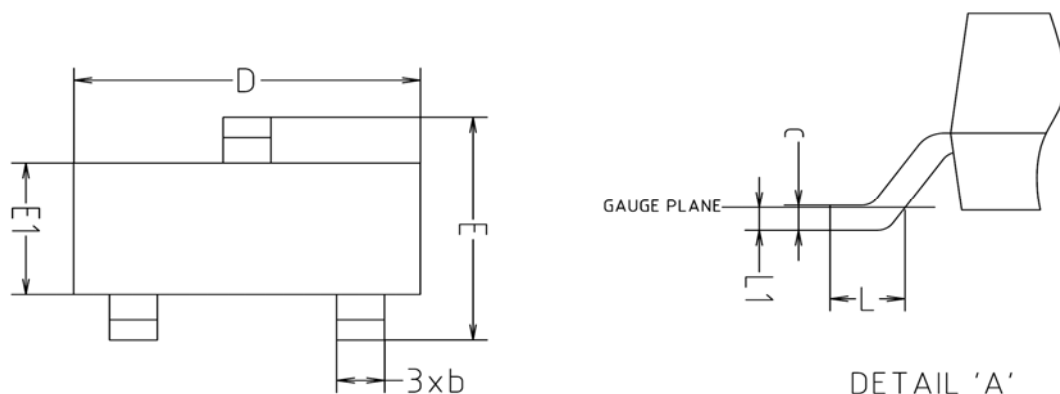


Fig. 6 $h_{FE} - I_C$

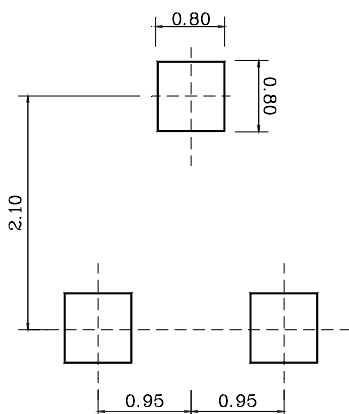


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	-	0.10	
A2	0.82	-	1.02	
b	0.39	0.42	0.45	
c	0.09	0.12	0.15	
D	2.80	2.90	3.00	
E	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
e	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

※Recommend PCB solder land [Unit: mm]



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