

## MEDIUM POWER AMPLIFIER

### Features

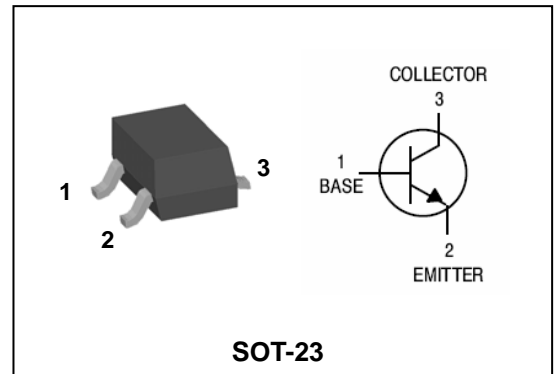
- Large collector current :  $I_C = 500\text{mA}$
- Low collector saturation voltage enabling low-voltage operation
- Complementary pair with 2SA1979S

### Ordering Information

Type No.	Marking	Package Code
2SC5342S	BA □ □ 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	Ratings	Unit
Collector-Base voltage	$V_{CB0}$	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	$BV_{CB0}$	$I_C = 100\mu\text{A}, I_E = 0$	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	$I_{CB0}$	$V_{CB} = 40\text{V}, I_E = 0$	-	-	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  $P_c - T_a$

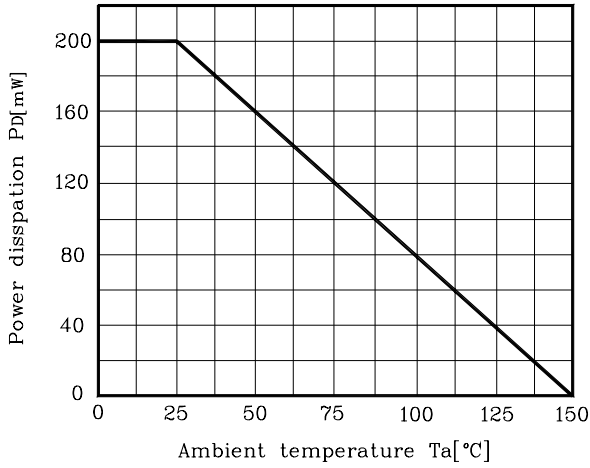


Fig. 2  $I_c - V_{BE}$

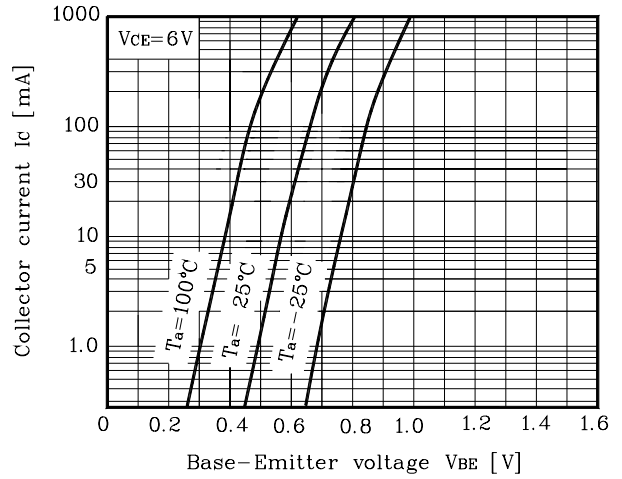


Fig. 3  $I_c - V_{CE}$

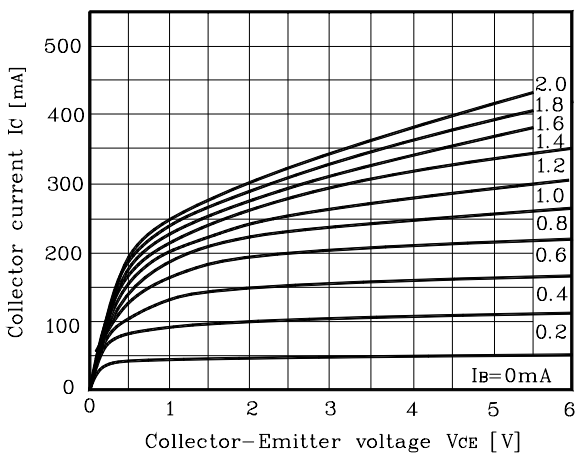


Fig. 4  $V_{CE(SAT)} - I_c$

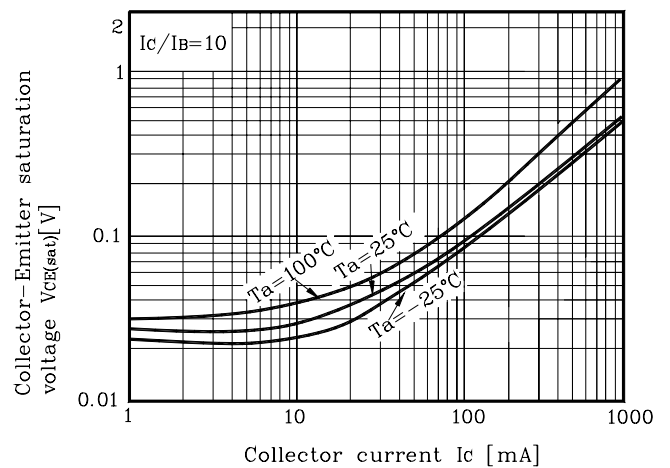
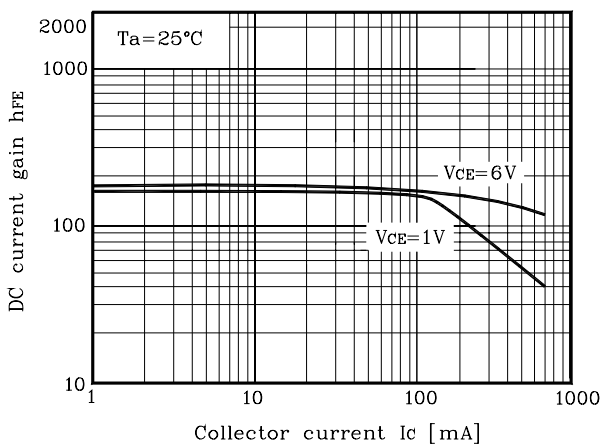
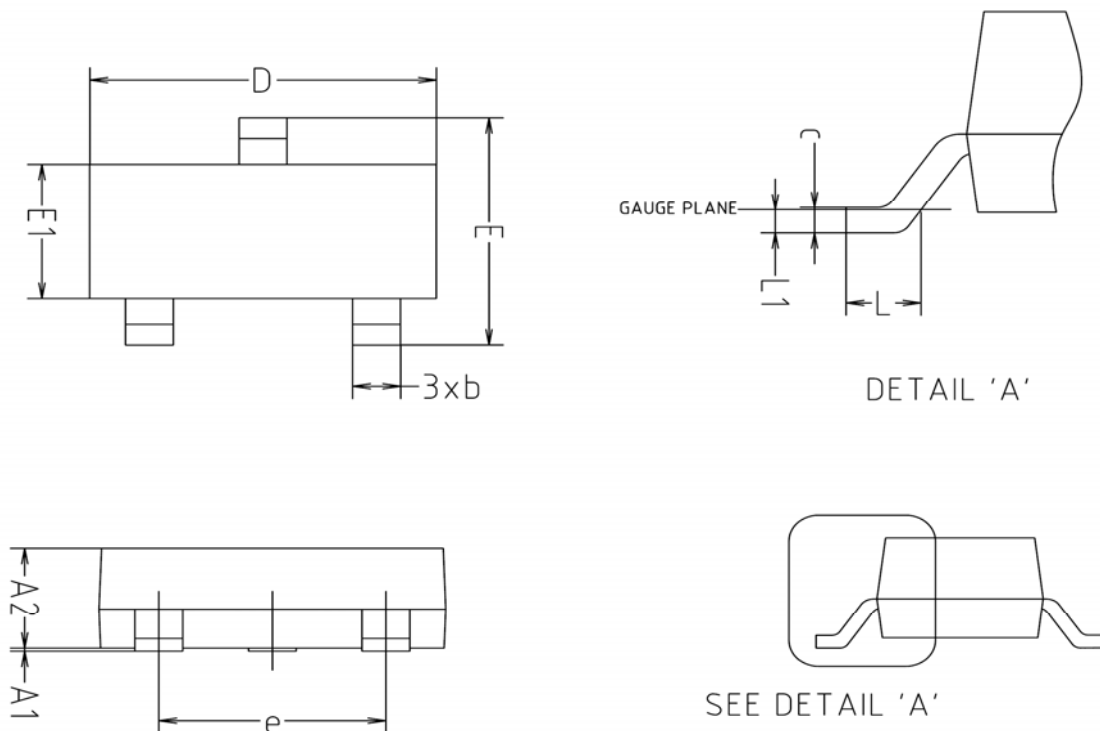


Fig. 5  $h_{FE} - I_c$

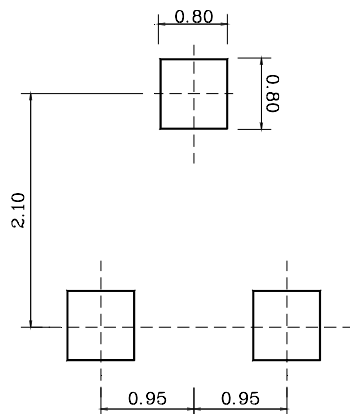


Outline Dimension



SYMBOL	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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