

### Description

- Medium power amplifier

### Features

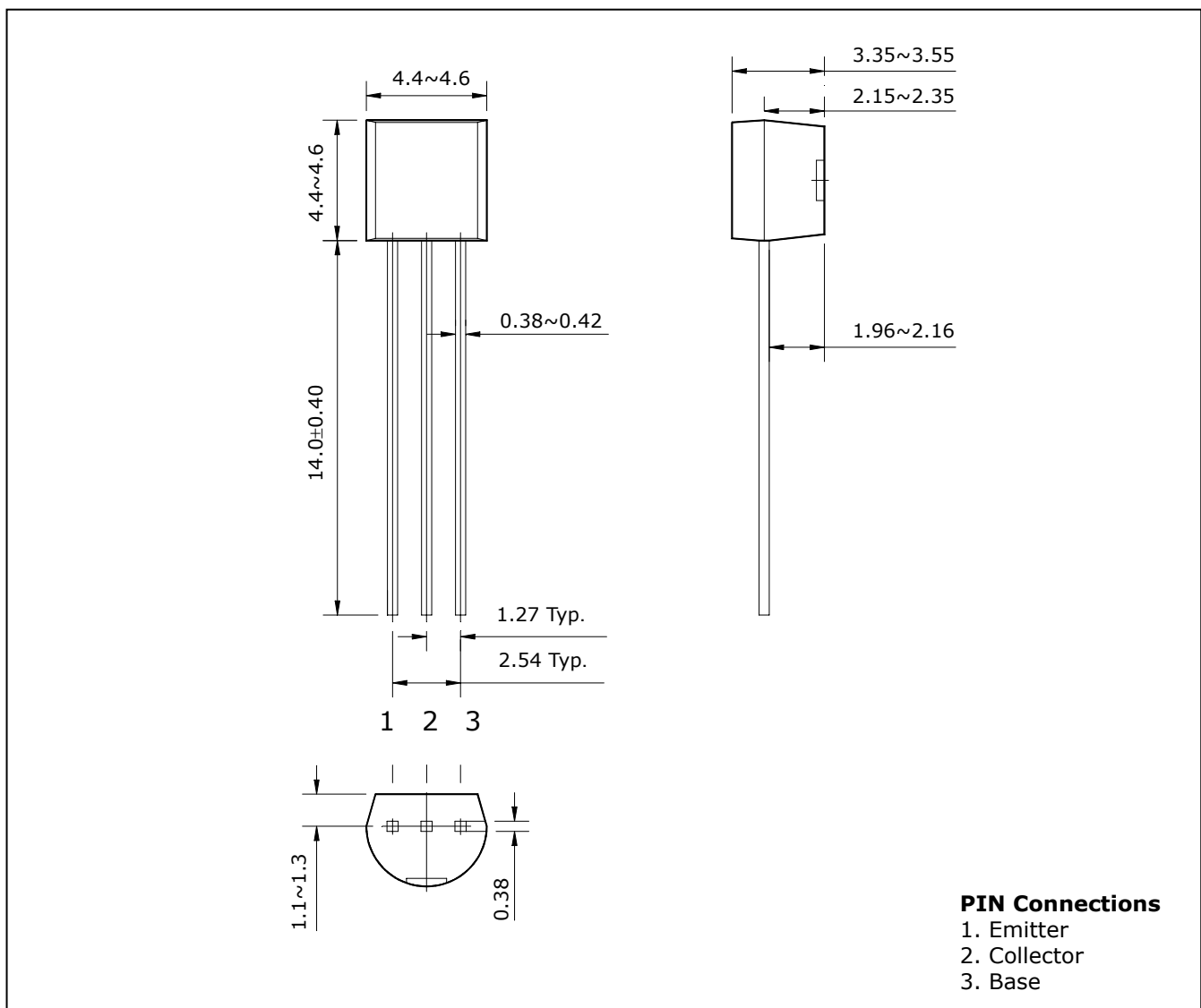
- Large collector current :  $I_C=500\text{mA}$
- Low collector saturation voltage enabling low-voltage operation
- Complementary pair with 2SA1979

### Ordering Information

Type NO.	Marking	Package Code
2SC5342	C5342	TO-92

### Outline Dimensions

unit : mm



**Absolute maximum ratings**

(Ta=25°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	$P_C$	625	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55~150	°C

**Electrical Characteristics**

(Ta=25°C)

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

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

Electrical Characteristic Curves

Fig. 1  $P_c - T_a$

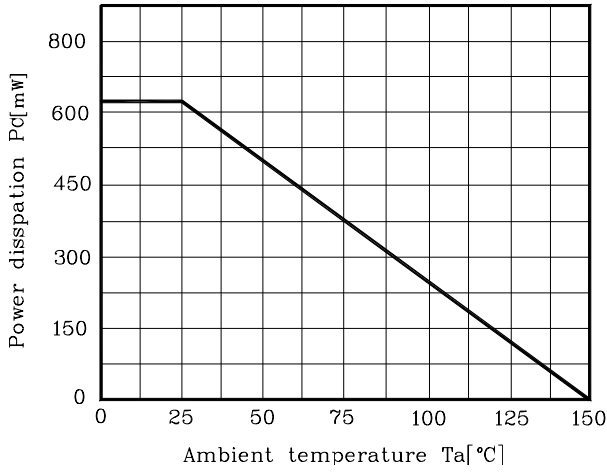


Fig. 2  $I_c - V_{BE}$

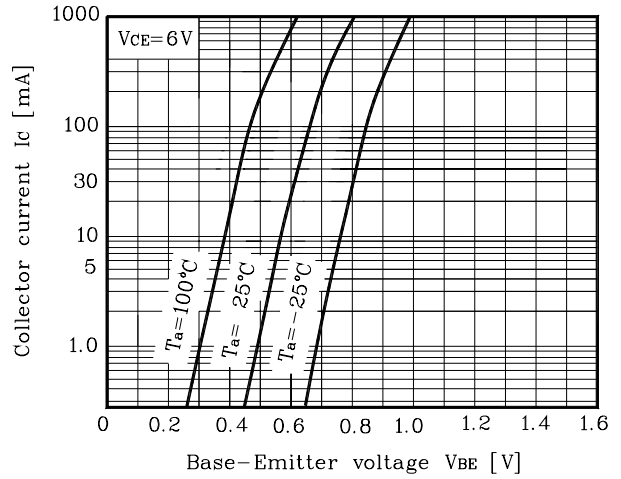


Fig. 3  $I_c - V_{CE}$

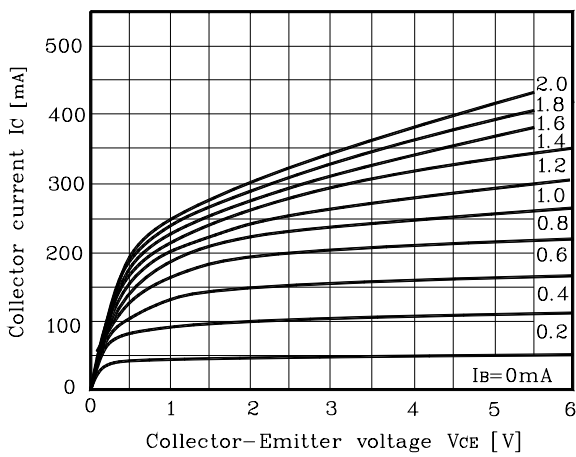


Fig. 4  $V_{CE(SAT)} - I_c$

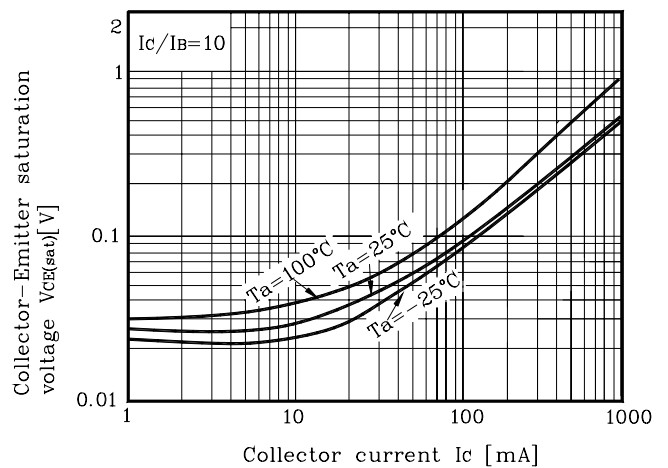
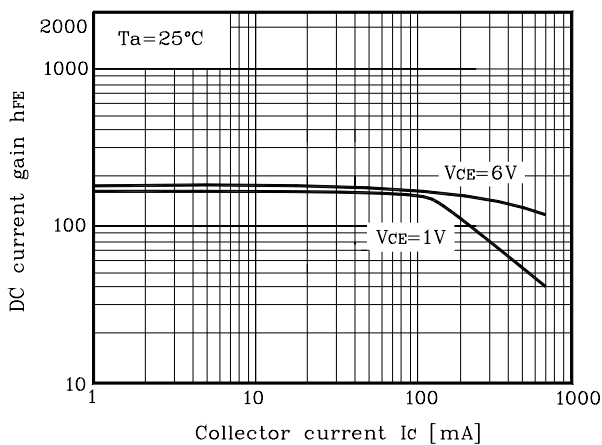


Fig. 5  $h_{FE} - I_c$



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