

Description

- Medium power amplifier

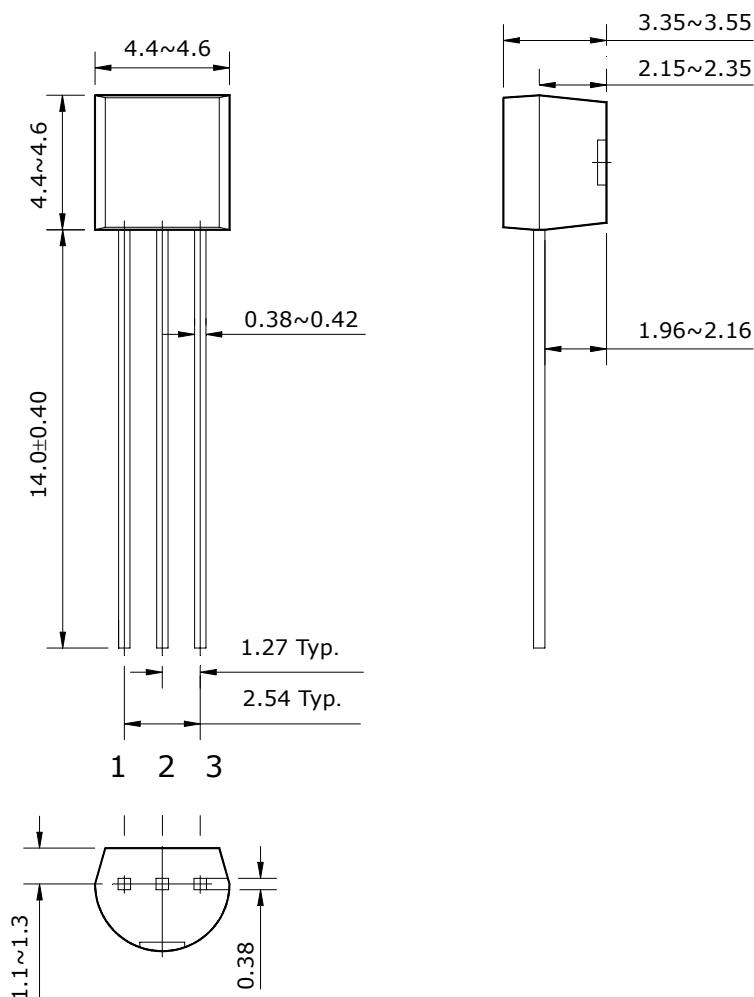
Features

- 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

PIN Connections

1. Emitter
2. Collector
3. Base

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 =100μA, 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 =10μA, I _C =0	5	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =40V, 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} =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

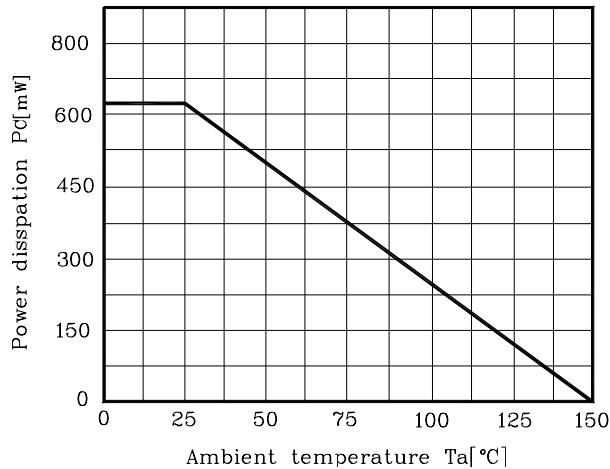


Fig. 2 I_C - V_{BE}

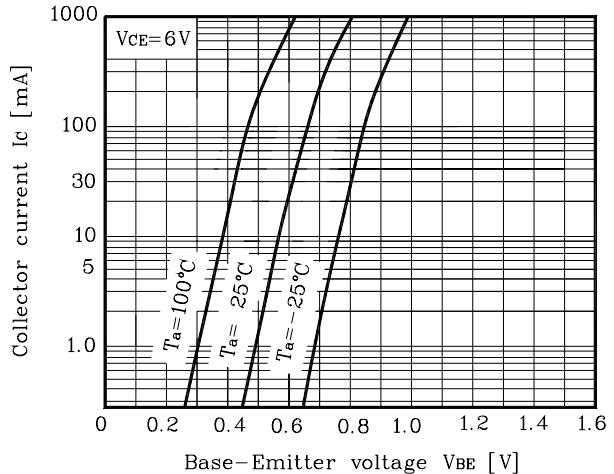


Fig. 3 I_C - V_{CE}

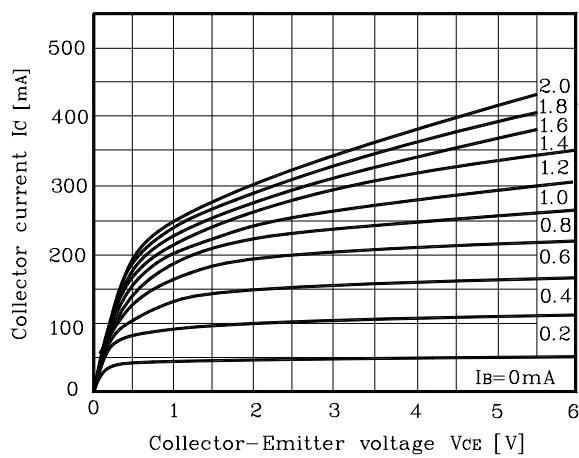


Fig. 4 $V_{CE(SAT)}$ - I_C

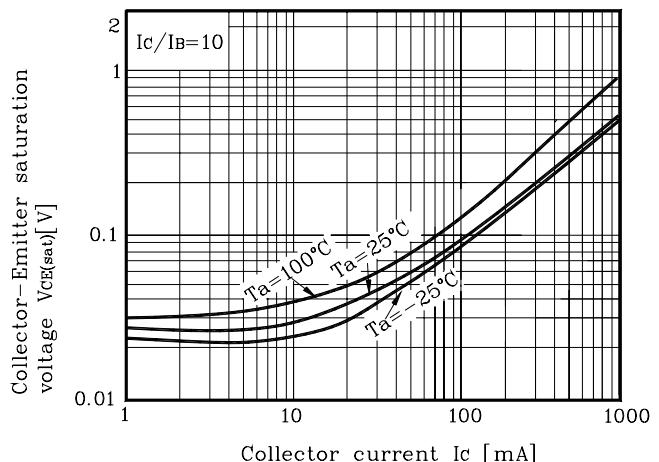
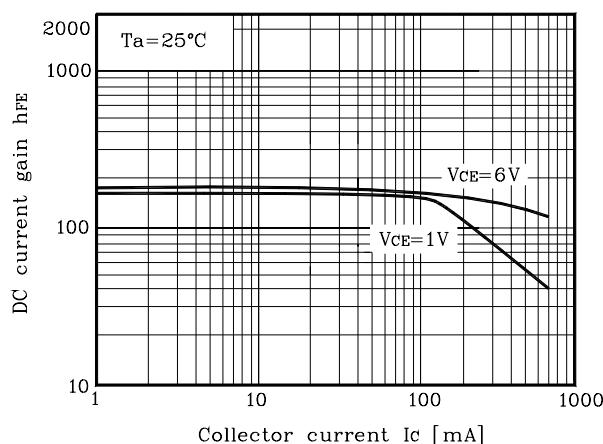


Fig. 5 h_{FE} - I_C



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