

Description

- General small signal amplifier

Features

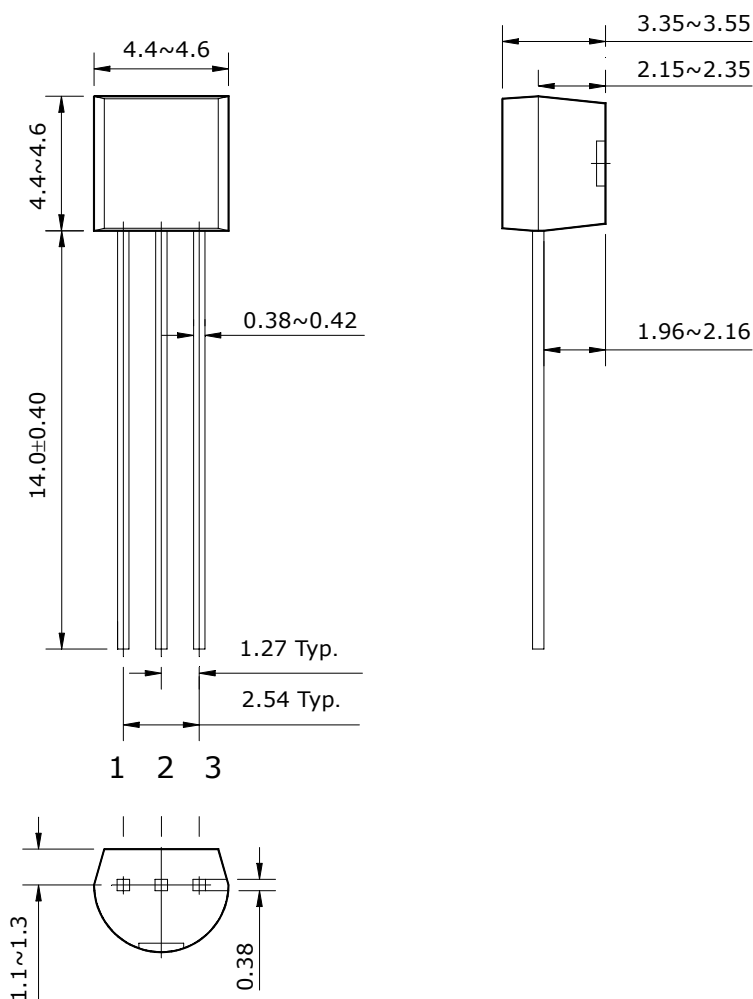
- Low collector saturation voltage : $V_{CE(sat)}=0.25V(\text{Max.})$
- Low output capacitance : $C_{ob}=2pF(\text{Typ.})$
- Complementary pair with 2SA1980

Ordering Information

Type NO.	Marking	Package Code
2SC5343	C5343	TO-92

Outline Dimensions

unit : mm



PIN Connections

1. Emitter
2. Collector
3. Base

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

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

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

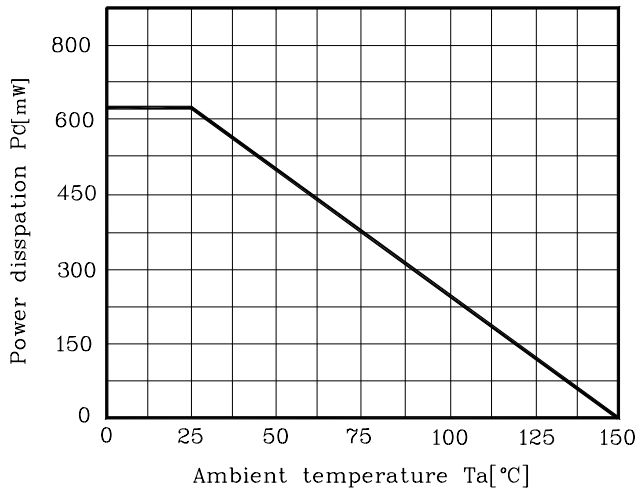


Fig. 2 $I_C - V_{BE}$

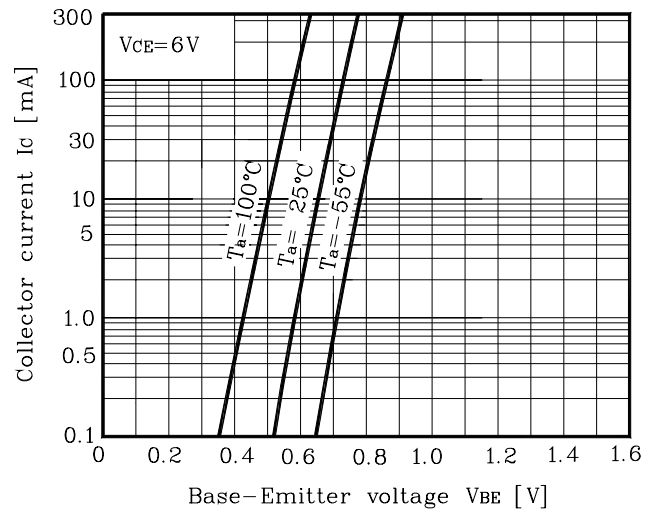


Fig. 3 $I_C - V_{CE}$

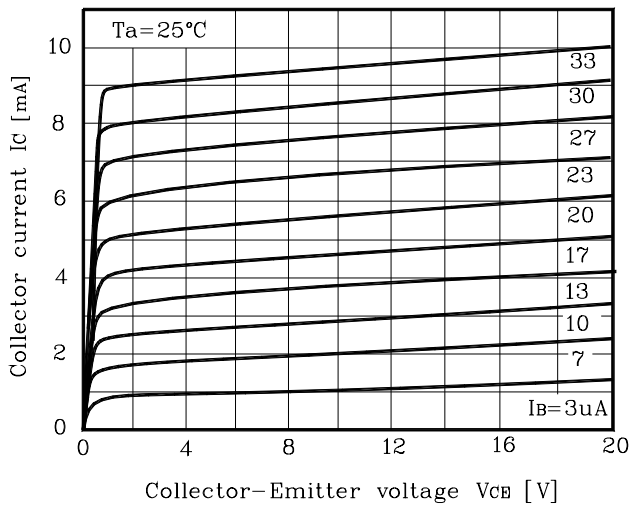


Fig. 4 $h_{FE} - I_C$

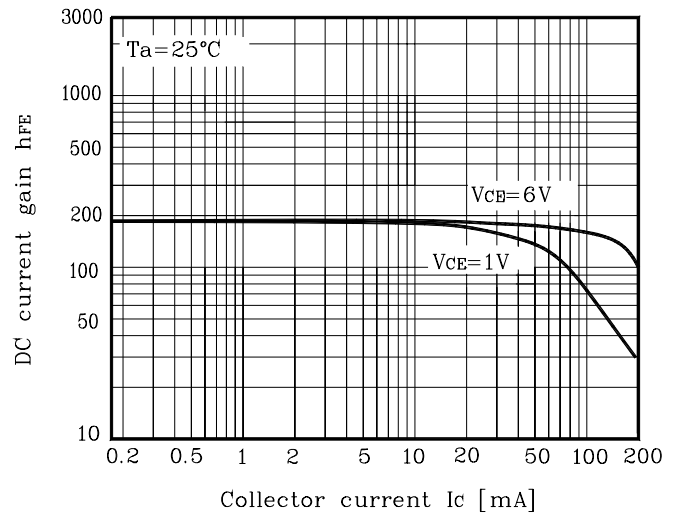
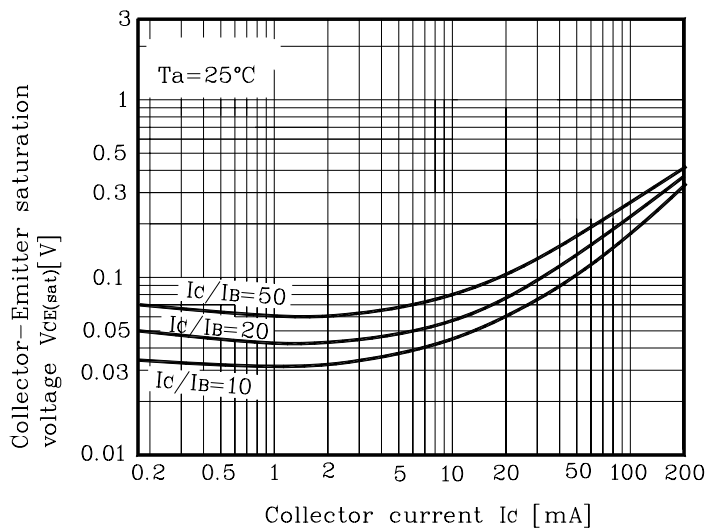


Fig. 5 $V_{CE(sat)} - I_C$



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