

**Description**

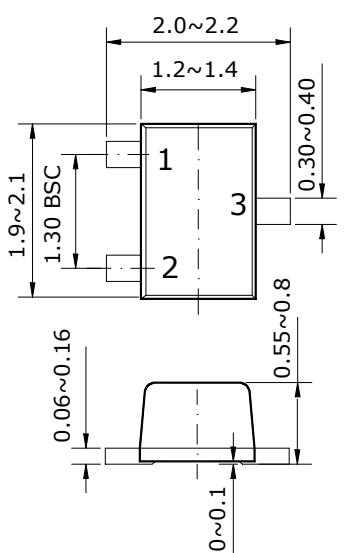
- General small signal amplifier

**Features**

- Low collector saturation voltage :  $V_{CE}=0.25V$ (Max.)
- Low output capacitance :  $C_{ob}=2pF$ (Typ.)
- Complementary pair with 2SA1980UF

**Ordering Information**

Type NO.	Marking	Package Code
2SC5343UF	D□ □ : $h_{FE}$ rank	SOT-323F

**Outline Dimensions****unit : mm****PIN Connections**

1. Base
2. Emitter
3. Collector

**Absolute maximum ratings**

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V <sub>CBO</sub>	60	V
Collector-Emitter voltage	V <sub>CEO</sub>	50	V
Emitter-Base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	150	mA
Collector dissipation	P <sub>C</sub>	200	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55~150	°C

**Electrical Characteristics**

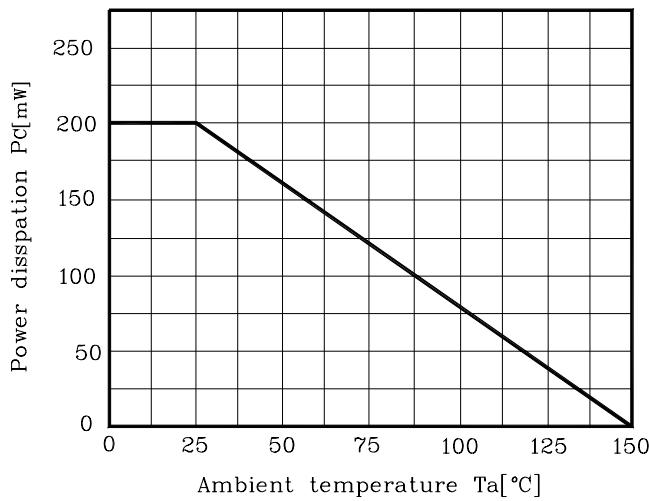
Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV <sub>CBO</sub>	I <sub>C</sub> =100μA, I <sub>E</sub> =0	60	-	-	V
Collector-Emitter breakdown voltage	BV <sub>CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	50	-	-	V
Emitter-Base breakdown voltage	BV <sub>EBO</sub>	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5	-	-	V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =60V, I <sub>E</sub> =0	-	-	0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	-	-	0.1	μA
DC current gain	h <sub>FE</sub> <sup>*</sup>	V <sub>CE</sub> =6V, I <sub>C</sub> =2mA	70	-	700	-
Collector-Emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	-	-	0.25	V
Transistion frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1mA	80	-	-	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	-	2	3.5	pF
Noise figure	NF	V <sub>CE</sub> =6V, I <sub>C</sub> =0.1mA, f=1KHz, R <sub>g</sub> =10KΩ	-	-	10	dB

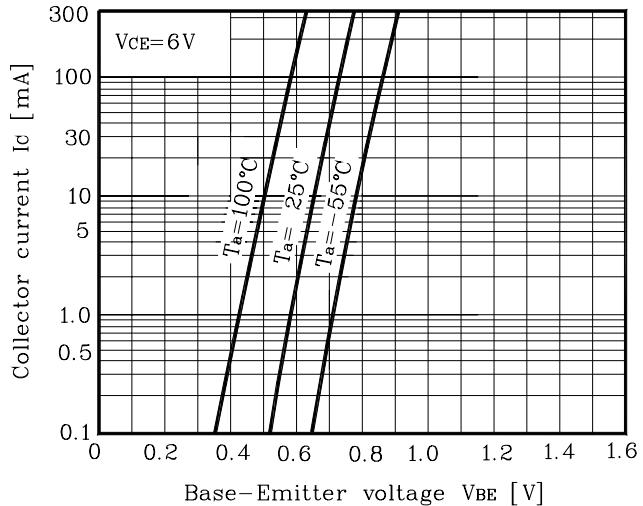
\*: h<sub>FE</sub> rank / O : 70 ~ 140, Y : 120 ~ 240, G : 200 ~ 400, L : 300 ~ 700

## Electrical Characteristic Curves

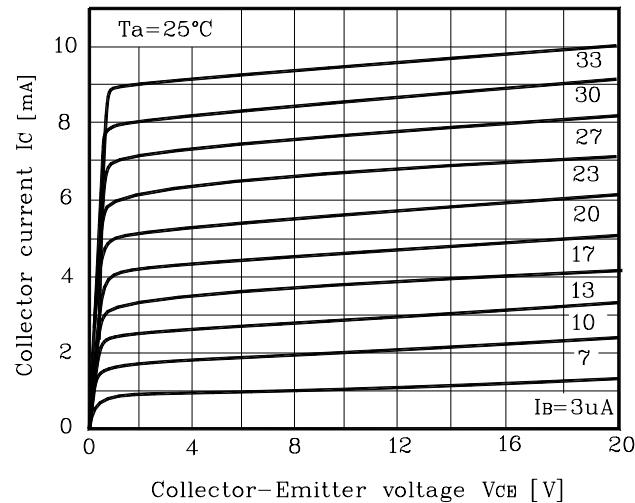
**Fig. 1  $P_C - T_a$**



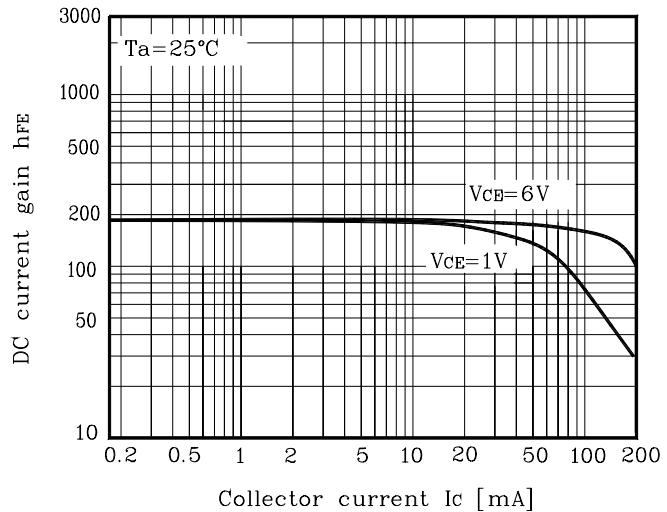
**Fig. 2  $I_C - V_{BE}$**



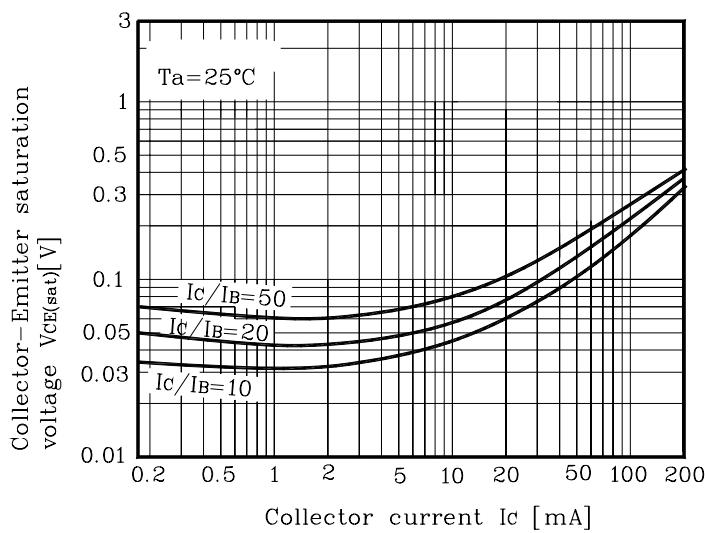
**Fig. 3  $I_C - V_{CE}$**



**Fig. 4  $h_{FE} - I_C$**



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



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