

### Description

- Medium power amplifier

### Features

- Large collector current :  $I_{CMax} = -500mA$
- Suitable for low-Voltage operation because of its low saturation voltage
- Complementary pair with 2SC5342UF

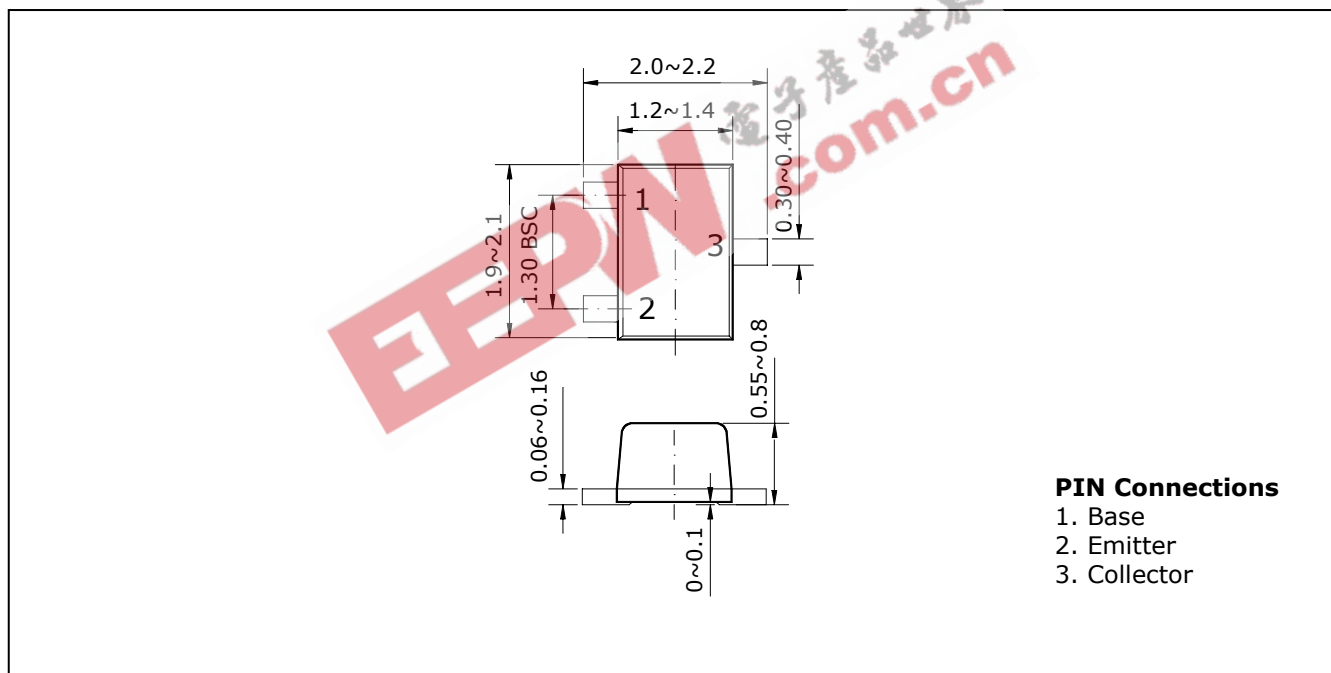
### Ordering Information

Type NO.	Marking	Package Code
2SA1979UF	A□	SOT-323F

□ :  $h_{FE}$  rank

### 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	$P_C$	200	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
Transistor frequency	$f_T$	$V_{CE} = -6V, I_C = -20mA$	-	200	-	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -6V, I_E = 0, f = 1MHz$	-	7.5	-	pF

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

Electrical Characteristic Curves

Fig. 1  $P_C - T_a$

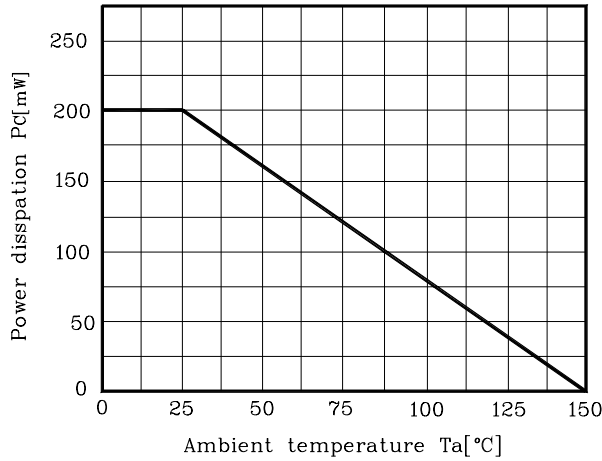


Fig. 2  $I_C - V_{BE}$

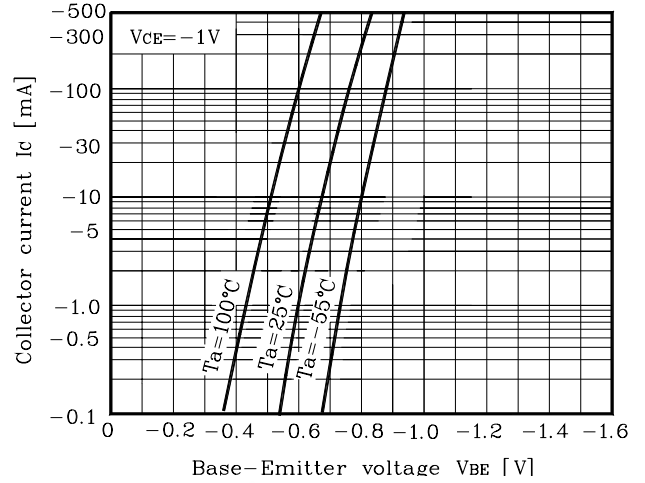


Fig. 3  $I_C - V_{CE}$

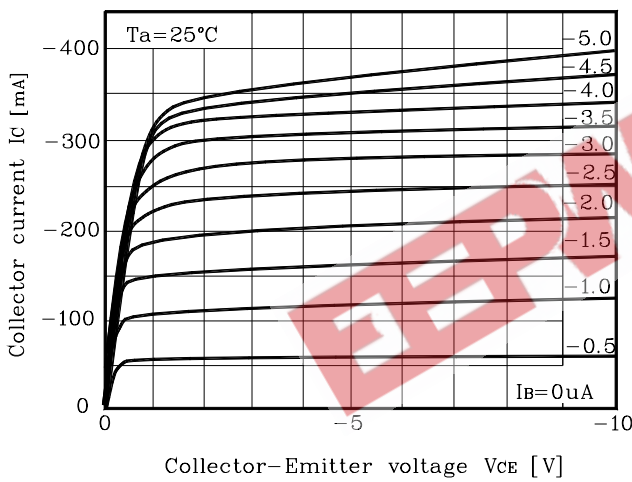


Fig. 4  $V_{CE(sat)} - I_C$

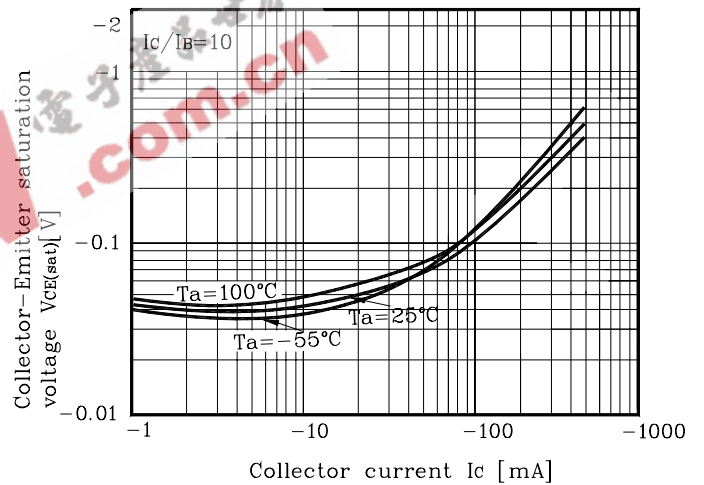


Fig. 5  $h_{FE} - I_C$

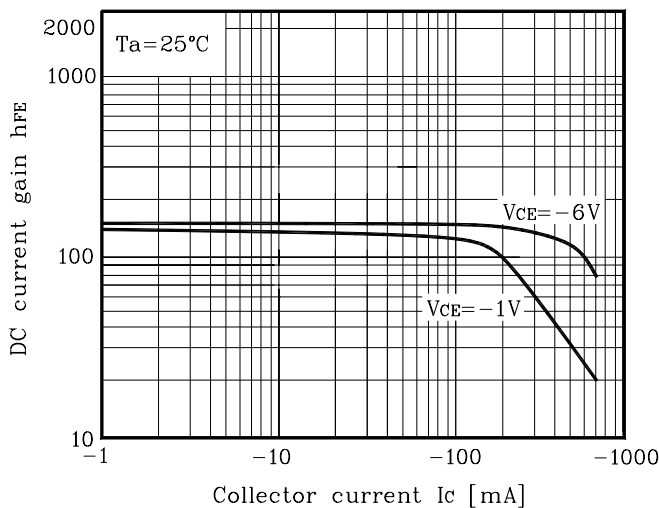
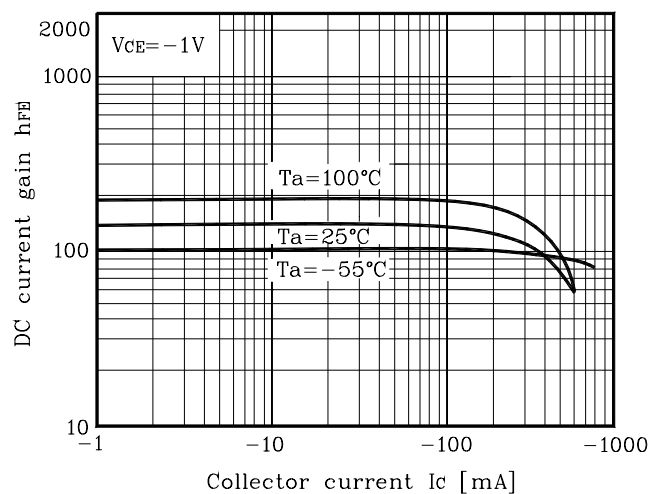


Fig. 6  $h_{FE} - I_C$



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