

Description

- RF amplifier

Features

- High current transition frequency
 $f_T = 550\text{MHz (Typ.)}$, $[V_{CE} = 6\text{V}, I_E = -1\text{mA}]$
- Low output capacitance :
 $C_{ob} = 1.4\text{pF (Typ.)}$ $[V_{CB} = 6\text{V}, I_E = 0]$
- Low base time constant and high gain
- Excellent noise response

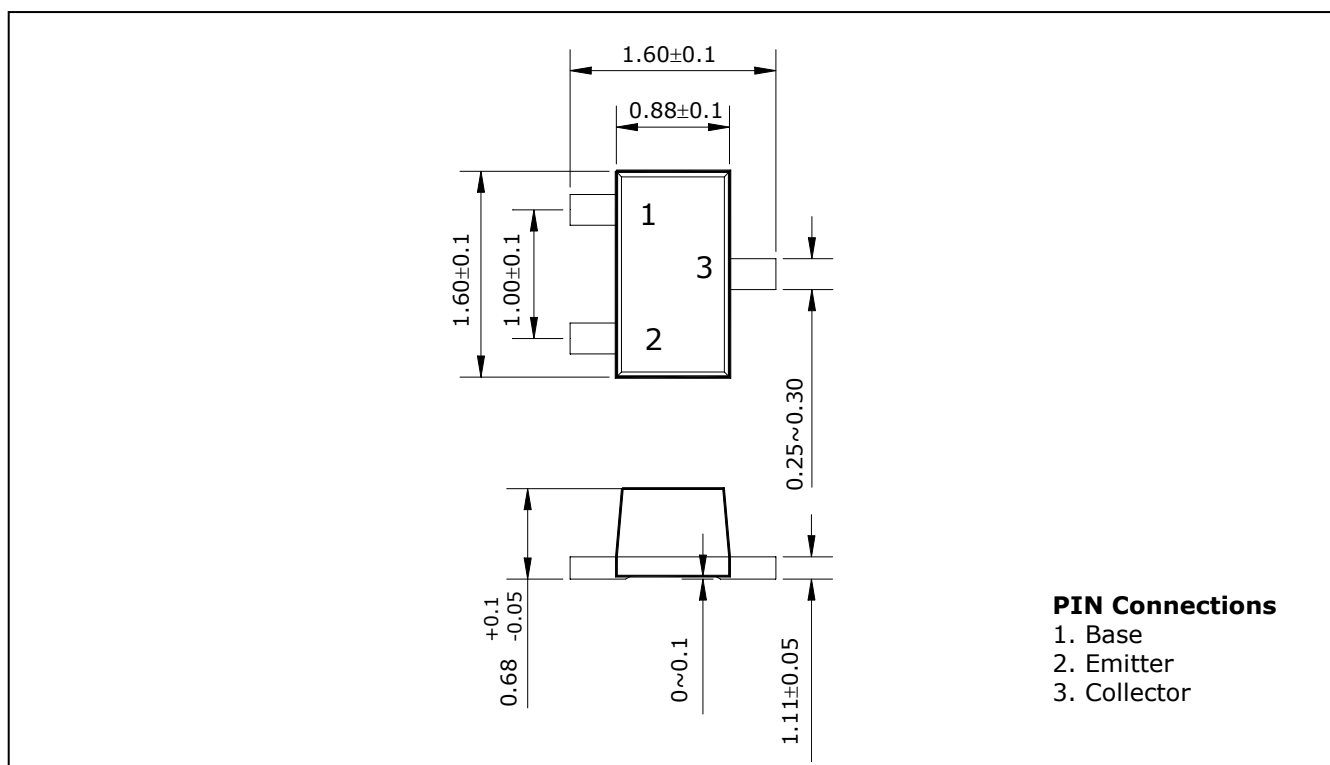
Ordering Information

Type NO.	Marking	Package Code
2SC5345E	Z□	SOT-523F

□ : h_{FE} rank

Outline Dimensions

unit : mm



Absolute maximum ratings**T_a=25°C**

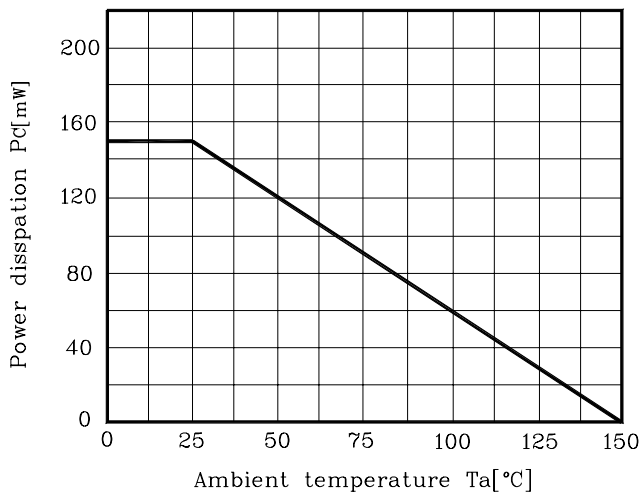
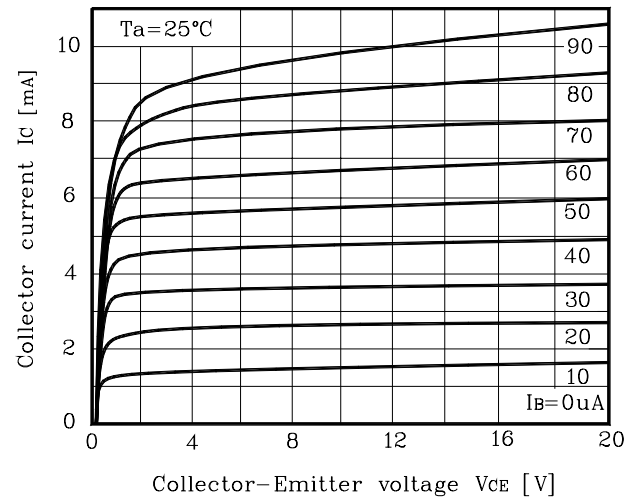
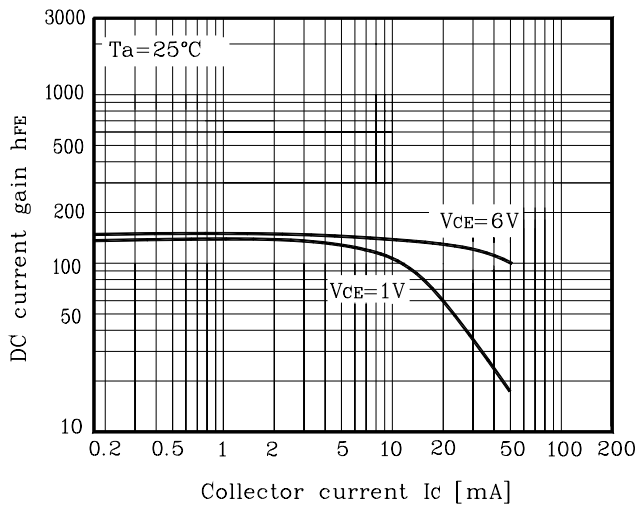
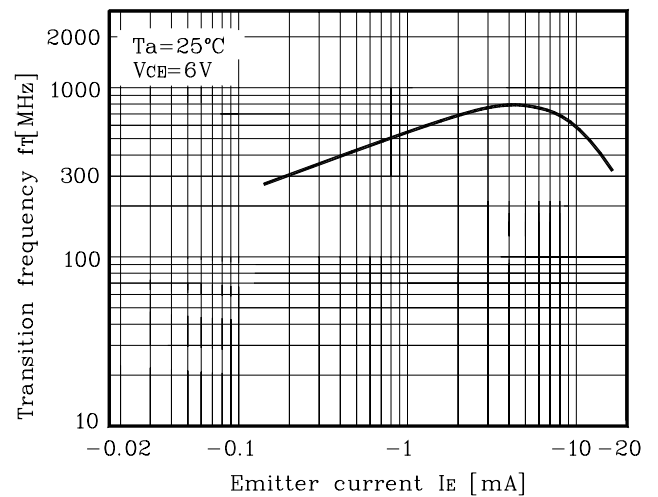
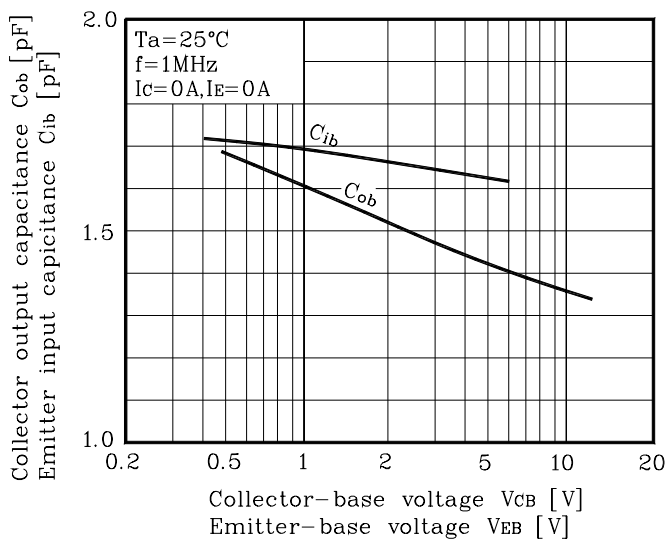
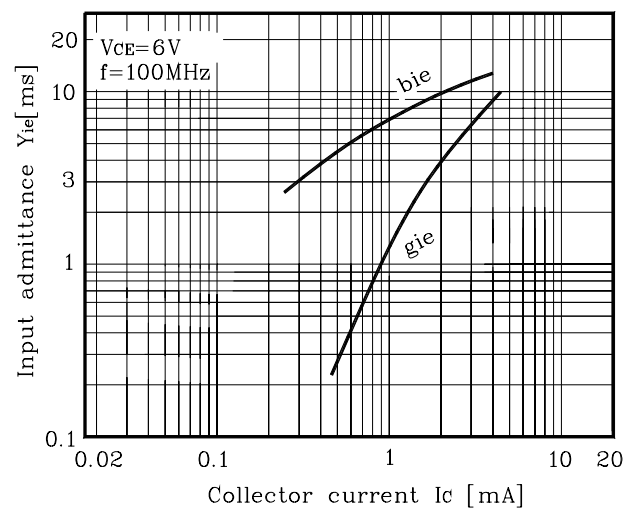
Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V _{CBO}	30	V
Collector-Emitter voltage	V _{CEO}	20	V
Emitter-Base voltage	V _{EBO}	4	V
Collector current	I _C	20	mA
Collector dissipation	P _C	150	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55~150	°C

Electrical Characteristics**T_a=25°C**

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV _{CBO}	I _C =10μA, I _E =0	30	-	-	V
Collector-Emitter breakdown voltage	BV _{CEO}	I _C =5mA, I _B =0	20	-	-	V
Emitter-Base breakdown voltage	BV _{EBO}	I _E =10μA, I _C =0	4	-	-	V
Collector cut-off current	I _{CBO}	V _{CB} =30V, I _E =0	-	-	0.5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0	-	-	0.5	μA
DC current gain	h _{FE} [*]	V _{CE} =6V, I _C =1mA	40	-	240	-
Collector-Emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =1mA	-	-	0.3	V
Transition frequency	f _T	V _{CE} =6V, I _E =-1mA	-	550	-	MHz
Collector output capacitance	C _{ob}	V _{CB} =6V, I _E =0, f=1MHz	-	1.4	-	pF

* : h_{FE} rank / R : 40~80, O : 70~140, Y : 120~240

Electrical Characteristic Curves

Fig. 1 P_C - T_a Fig. 2 I_C - V_{CE} Fig. 3 h_{FE} - I_C Fig. 4 f_T - I_E Fig. 5 C_{ob} - V_{CB} , C_{ib} - V_{EB} Fig. 6 Y_{ie} - I_C 

Electrical Characteristic Curves

Fig. 7 I_C - Y_{oe}

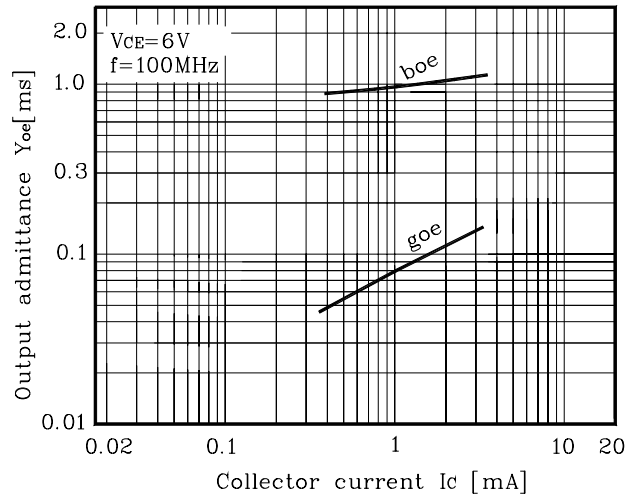


Fig. 8 I_C - Y_{fe}

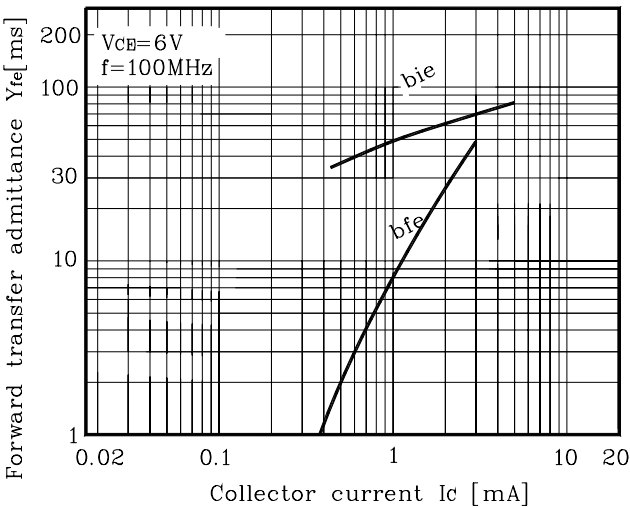


Fig. 9 I_C - Y_{re}

