

2SC1359

Silicon NPN epitaxial planer type

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

For high-frequency amplification

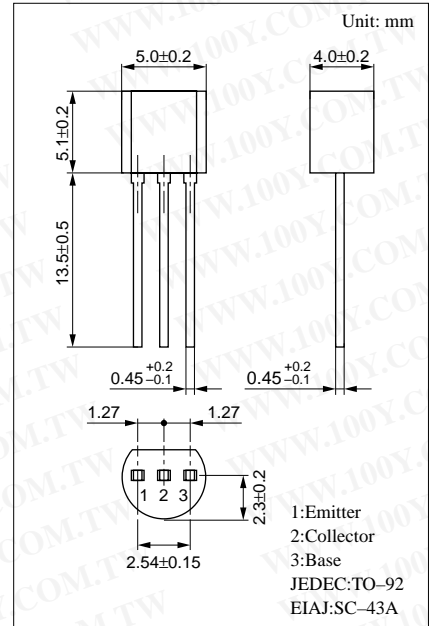
Complementary to 2SA838

Features

- Optimum for RF amplification of FM/AM radios.
- High transition frequency f_T .

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	20	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	30	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$

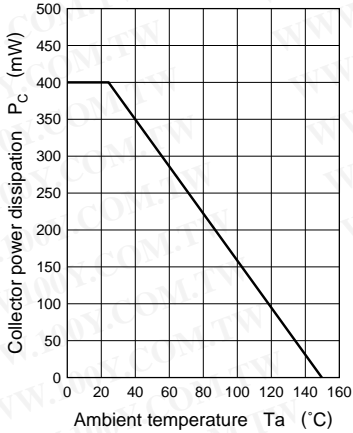
**Electrical Characteristics** ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 10\text{V}, I_E = 0$			0.1	μA
Forward current transfer ratio	h_{FE}^*	$V_{CB} = 10\text{V}, I_E = -1\text{mA}$	70		220	
Transition frequency	f_T	$V_{CB} = 10\text{V}, I_E = -1\text{mA}, f = 200\text{MHz}$	150	250		MHz
Noise figure	NF	$V_{CB} = 10\text{V}, I_E = -1\text{mA}, f = 5\text{MHz}$		2.8	4	dB
Reverse transfer impedance	Z_{rb}	$V_{CB} = 10\text{V}, I_E = -1\text{mA}, f = 2\text{MHz}$		22	50	Ω
Common emitter reverse transfer capacitance	C_{re}	$V_{CE} = 10\text{V}, I_C = 1\text{mA}, f = 10.7\text{MHz}$		0.9	1.5	pF

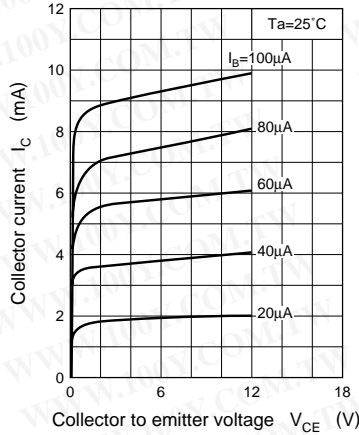
* h_{FE} Rank classification

Rank	B	C
h_{FE}	70 ~ 140	110 ~ 220

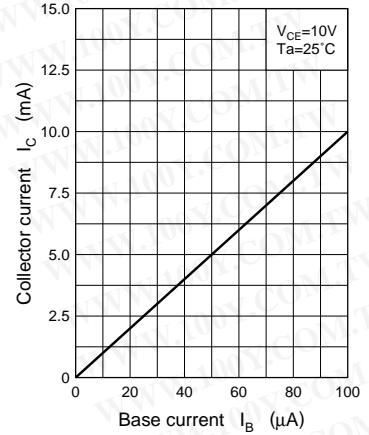
$P_C - T_a$



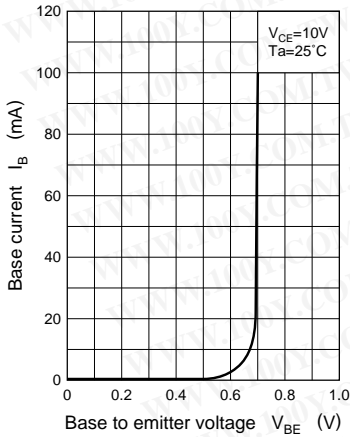
$I_C - V_{CE}$



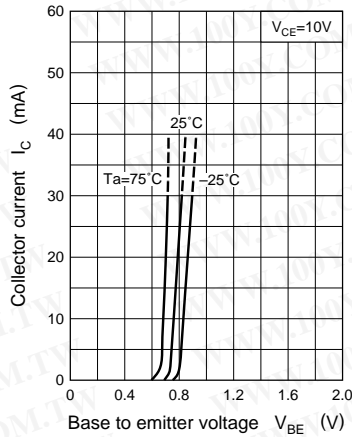
$I_C - I_B$



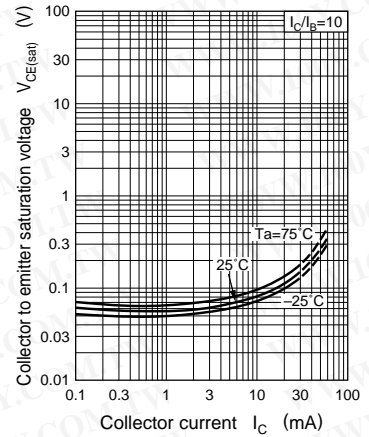
$I_B - V_{BE}$



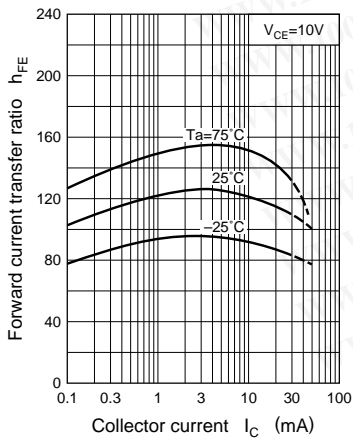
$I_C - V_{BE}$



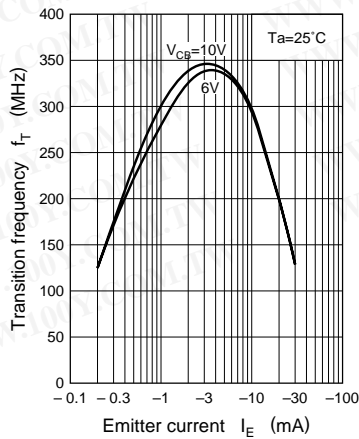
$V_{CE(sat)} - I_C$



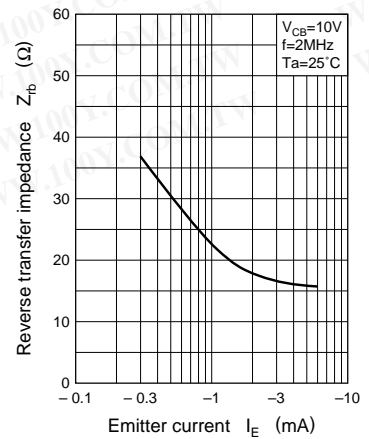
$h_{FE} - I_C$

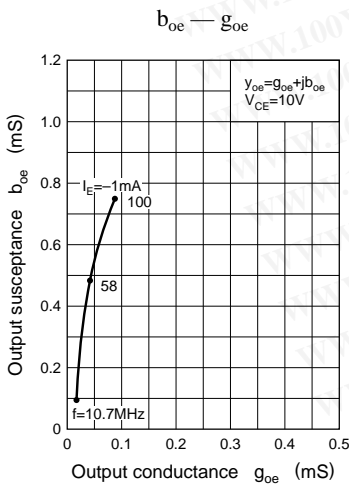
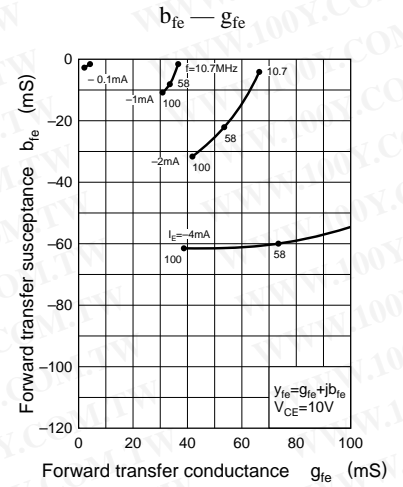
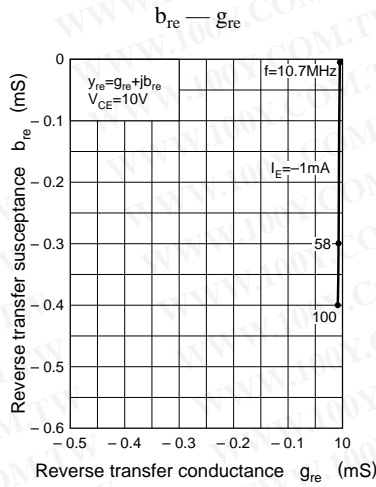
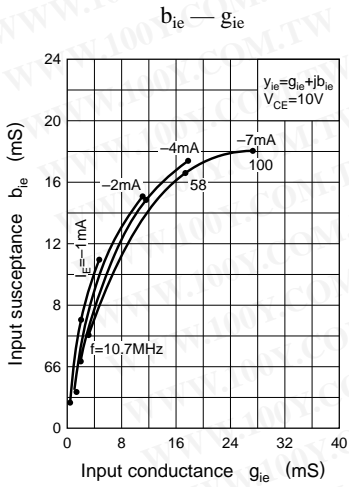
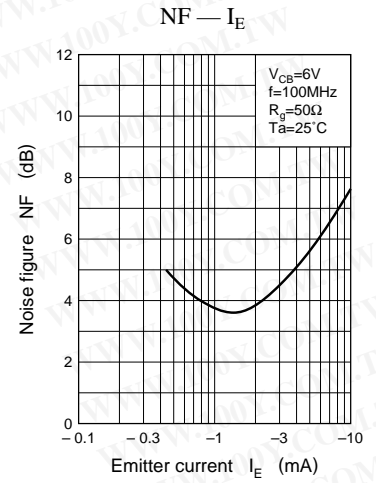
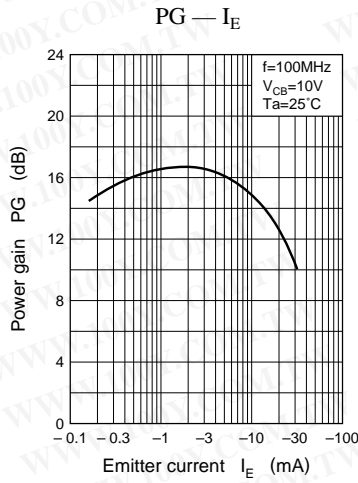
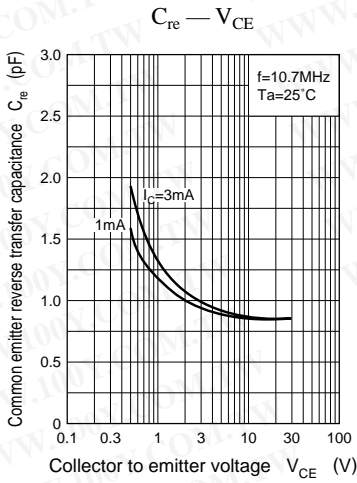


$f_T - I_E$



$Z_{rb} - I_E$





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