# 2SC3314

### Silicon NPN epitaxial planer type

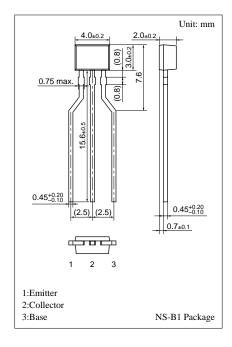
For high-frequency amplification Complementary to 2SA1323

#### Features

- Optimum for high-density mounting.
- Allowing supply with the radial taping.
- Optimum for RF amplification of FM/AM radios.
- High transition frequency f<sub>T</sub>.

### Absolute Maximum Ratings (Ta=25°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	$V_{\rm EBO}$	5	V
Collector current	$I_{C}$	30	mA
Collector power dissipation	$P_{C}$	300	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	$T_{stg}$	<b>−55</b> ~ <b>+150</b>	°C



#### Electrical Characteristics (Ta=25°C)

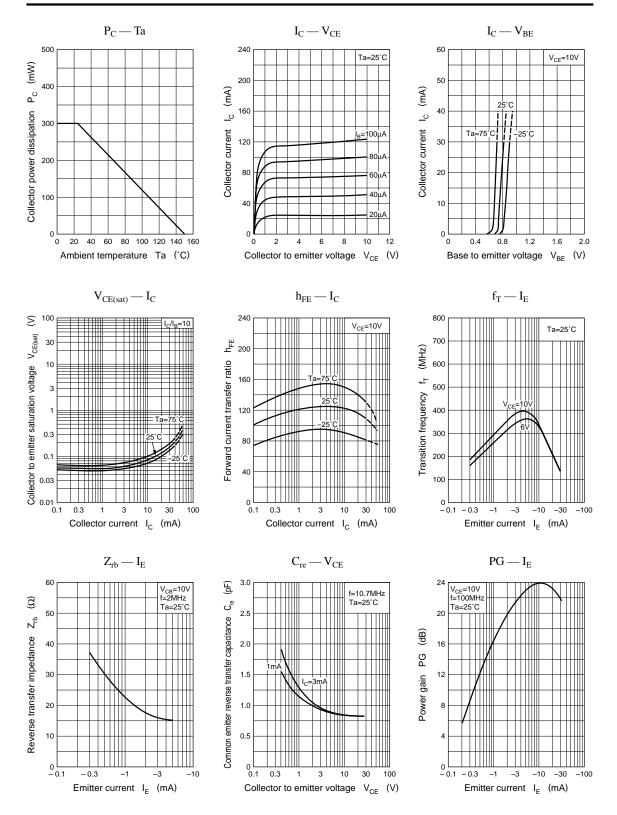
Parameter	Symbol	Conditions	min	typ	max	Unit
Collector to base voltage	V <sub>CBO</sub>	$I_{\rm C} = 10 \mu A, I_{\rm E} = 0$	30			V
Collector to emitter voltage	V <sub>CEO</sub>	$I_{\rm C} = 1  \text{mA},  I_{\rm B} = 0$	20			V
Emitter to base voltage	V <sub>EBO</sub>	$I_E = 10 \mu A, I_C = 0$	5			V
Forward current transfer ratio	h <sub>FE</sub> *	$V_{CE} = 10V, I_C = 1mA$	70		220	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = 10$ mA, $I_B = 1$ mA		0.1		V
Base to emitter voltage	V <sub>BE</sub>	$V_{CE} = 10V, I_C = 1mA$		0.7		V
Transition frequency	$f_T$	$V_{CB} = 10V, I_E = -1mA, f = 200MHz$	150	300		MHz
Noise figure	NF	$V_{CB} = 10V, I_E = -1mA, f = 5MHz$		2.8	4.0	dB
Common emitter reverse transfer capacitance	C <sub>re</sub>	$V_{CE} = 10V, I_{C} = 1mA, f = 10.7MHz$			1.5	pF
Reverse transfer impedance	Z <sub>rb</sub>	$V_{CB} = 10V, I_{E} = -1mA, f = 2MHz$			50	Ω

#### \*hFE Rank classification

Rank	В	С
$h_{FE}$	70 ~ 140	110 ~ 220

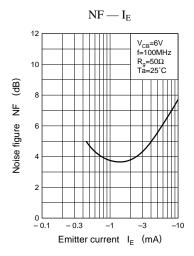
Panasonic 393

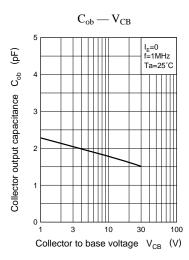
Transistor 2SC3314



394 Panasonic

Transistor 2SC3314





395

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