

# 2SC5474 (Tentative)

Silicon NPN epitaxial planar type

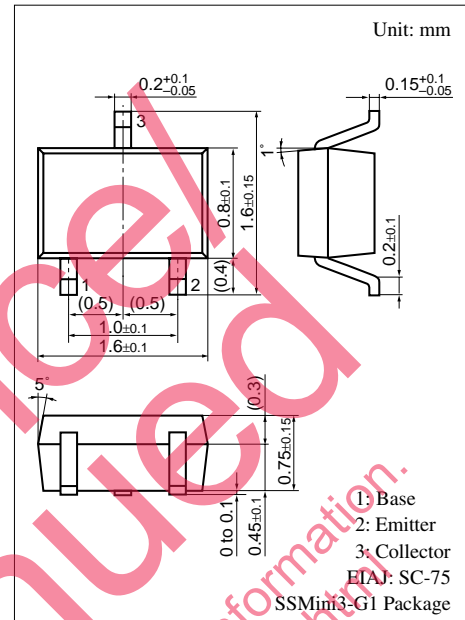
For low-voltage low-noise high-frequency oscillation

## ■ Features

- High transition frequency  $f_T$
- High gain of 8.9 dB and low noise of 1.8 dB at 3 V
- Optimum for RF amplification of a portable telephone and pager
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

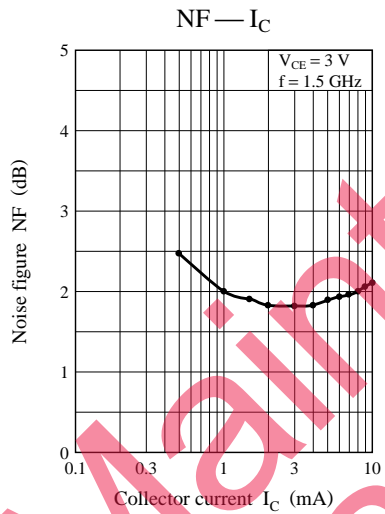
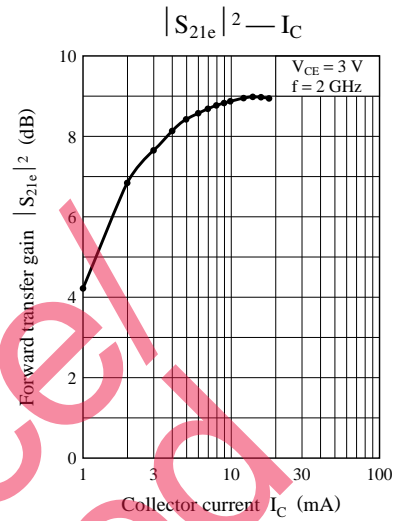
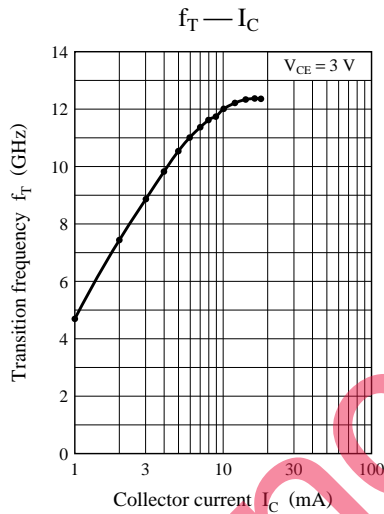
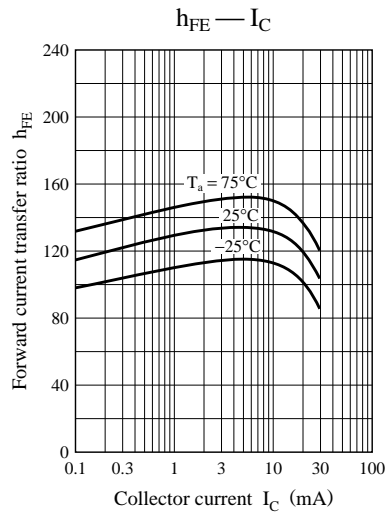
## ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	9	V
Collector to emitter voltage	$V_{CEO}$	6	V
Emitter to base voltage	$V_{EBO}$	1	V
Collector current	$I_C$	30	mA
Collector power dissipation	$P_C$	125	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$



## ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 9\text{ V}, I_E = 0$			1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 1\text{ V}, I_C = 0$			1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 3\text{ V}, I_C = 10\text{ mA}$	80		200	
Collector output capacitance	$C_{ob}$	$V_{CB} = 3\text{ V}, I_E = 0, f = 1\text{ MHz}$		0.4		pF
Transition frequency	$f_T$	$V_{CE} = 3\text{ V}, I_C = 10\text{ mA}, f = 2\text{ GHz}$		12.0		GHz
Noise figure	NF	$V_{CE} = 3\text{ V}, I_C = 3\text{ mA}, f = 1.5\text{ GHz}$		1.8		dB
Forward transfer gain	$ S_{21e} ^2$	$V_{CE} = 3\text{ V}, I_C = 10\text{ mA}, f = 2\text{ GHz}$		8.9		dB



Maintenance

Discontinued

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