

2SC5474 (Tentative)

Silicon NPN epitaxial planer type

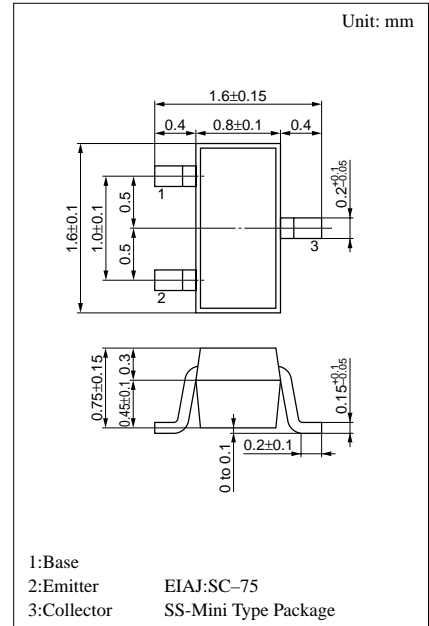
For low-voltage low-noise high-frequency oscillation

Features

- High transition frequency f_T .
- High gain of 8.9dB and low noise of 1.8dB at 3V.
- 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 (Ta=25°C)

Parameter	Symbol	Ratings	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	°C
Storage temperature	T_{stg}	-55 ~ +125	°C

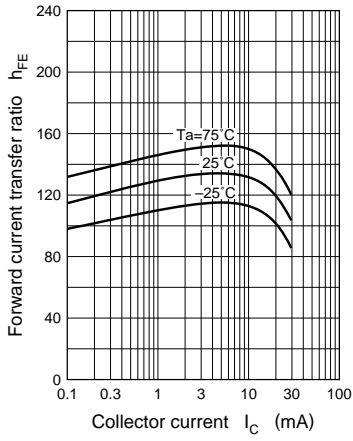


Marking symbol : 3A

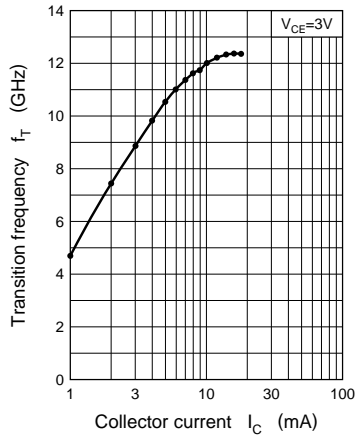
Electrical Characteristics (Ta=25°C)

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

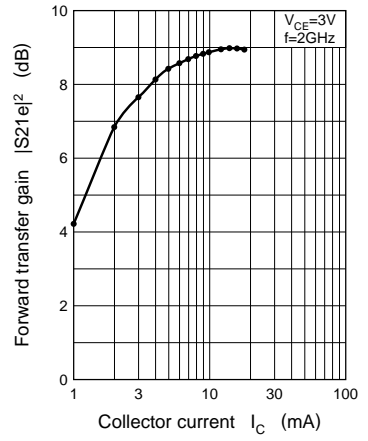
$h_{FE} - I_C$



$f_T - I_C$



$|S_{21e}|^2 - I_C$



NF - I_C

