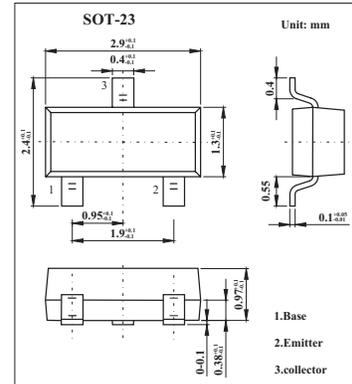


Silicon NPN Epitaxial Planar Type

2SC3429

■ Features

- Low Noise Figure
- $NF=1.5dB, |S_{21e}|^2=16dB(f=500MHz)$
- $NF=1.5dB, |S_{21e}|^2=10.5dB(f=1GHz)$

■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	17	V
Collector-emitter voltage	V_{CE0}	12	V
Emitter-base voltage	V_{EB0}	3	V
Collector current	I_C	70	mA
Base current	I_B	30	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	125	$^\circ C$
Storage temperature Range	T_{stg}	-55 to +125	$^\circ C$

■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 10V, I_E = 0$			1	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 1V, I_C = 0$			1	nA
DC current gain	h_{FE}	$V_{CE} = 10V, I_C = 20mA$	25			
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		0.85		pF
Reverse Transfer Capacitance	C_{re}			0.57		pF
Transition Frequency	f_T	$V_{CE}=10V, I_C=20mA$		5		GHz
Insertion Gain	$ S_{21e} ^2(1)$	$V_{CE}=10V, I_C=20mA, f=500MHz$		16		dB
	$ S_{21e} ^2(2)$	$V_{CE}=10V, I_C=20mA, f=1GHz$		10.5		dB
Noise Figure	NF(1)	$V_{CE}=10V, I_C=5mA, f=500MHz$		1.5		dB
	NF(2)	$V_{CE}=10V, I_C=5mA, f=1GHz$		1.7		dB

■ Marking

Marking	ME