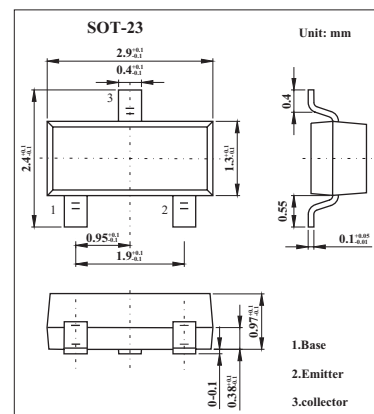


PNP Epitaxial Planar Silicon Transistors

2SA1669

■ Features

- High cutoff frequency : $f_T=3.0\text{GHz}$ typ.
- High power gain : $MAG=11\text{dB}$ typ ($f=0.9\text{GHz}$)
- Small noise figure: $NF=2.0\text{dB}$ typ ($f=0.9\text{GHz}$)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-20	V
Collector-emitter voltage	V_{CEO}	-15	V
Emitter-base voltage	V_{EBO}	-3	V
Collector current	I_C	-50	mA
Collector dissipation	P_C	250	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -15\text{V}, I_E = 0$			-0.1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = -2\text{V}, I_C = 0$			-0.1	μA
DC current Gain	h_{FE}	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$	15			
Gain bandwidth product	f_T	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$	1.5	3.0		MHz
Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		1.0	1.5	pF
Reverse transfer capacitance	C_{re}	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		0.7		pF
Forward Transfer Gain	$ S_{21e} ^2$	$V_{CE}=-10\text{V}, I_C=-5\text{mA}, f=0.9\text{GHz}$	5.0			dB
Maximum Available Power Gain	MAG	$V_{CE}=-10\text{V}, I_C=-5\text{mA}, f=0.9\text{GHz}$		11		dB
Noise Figure	NF	$V_{CE}=-10\text{V}, I_C=-3\text{mA}, f=0.9\text{GHz}$		2.0		dB

■ Marking

Marking	DB
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