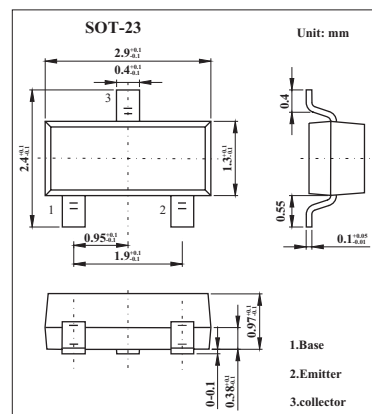


# 2SA1256

### ■ Features

- High  $f_T$  (230MHz typ), and small  $C_{re}$  (1.1pF typ).
- Small NF (2.5dB typ).



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-30	V
Collector-emitter voltage	$V_{CEO}$	-20	V
Emitter-base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-30	mA
Collector dissipation	$P_C$	150	W
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	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = -10V, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4V, I_C = 0$			-0.1	$\mu\text{A}$
DC current Gain	$h_{FE}$	$V_{CE} = -6V, I_C = -1\text{mA}$	60		270	
Gain bandwidth product	$f_T$	$V_{CE} = -6V, I_C = -1\text{mA}$	150	230		MHz
Reverse transfer capacitance	$C_{re}$	$V_{CB} = -6V, f = 1\text{MHz}$		1.1	1.7	pF
Base-collector time constant	$r_{bb}, C_c$	$V_{CE} = -6V, I_C = -1\text{mA}, f = 31.9\text{MHz}$		11	20	ps
Noise figure	NF	$V_{CE} = -6V, I_C = -1\text{mA}, f = 100\text{MHz}$		2.5		dB
Voltage gain	PG	$V_{CE} = -6V, I_C = -1\text{mA}, f = 100\text{MHz}$		22		dB

### ■ $h_{FE}$ Classification

Marking	E3	E4	E5
$h_{FE}$	60~120	90~180	135~180