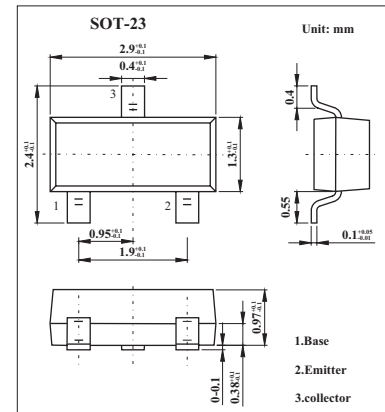


## Silicon Transistor

## 2SA1226

## ■ Features

- High gain bandwidth product
- Low output capacitance
- Low noise

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

Parameter	Symbol	Rating	Unit
Collector-base voltage ( $R_{BE} = \infty$ )	$V_{CB0}$	-40	V
Collector-emitter voltage	$V_{CE0}$	-40	V
Emitter-base voltage	$V_{EB0}$	-5.0	V
Collector current - continuous	$I_C$	-30	mA
Total power dissipation at $25^\circ\text{C}$ ambient temperature	$P_T$	200	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	$I_{CBO}$	$V_{CB} = -40\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4.0\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_C = -1.0\text{mA}$	40	90	180	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1.0\text{mA}$		-0.09	-0.3	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	-0.67	-0.72		V
Gain bandwidth product	$f_T$	$V_{CE} = -10\text{V}, I_E = 1.0\text{mA}$	250	400		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1.0\text{MHz}$		1.1	2.0	pF
Noise figure	NF	$V_{CE} = -10\text{V}, I_C = -1.0\text{mA}, R_G = 500\Omega, f = 1.0\text{MHz}$		3.5		dB

■  $h_{FE}$  Classification

Marking	E2	E3	E4
$h_{FE}$	40~80	60~120	90~180