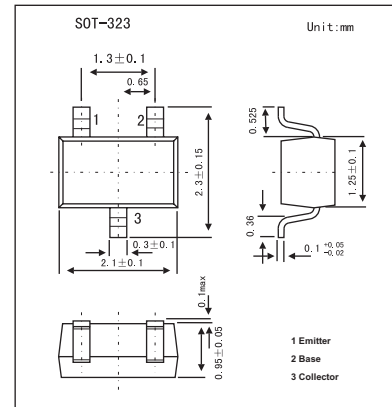


## PNP Silicon Epitaxia

## 2SA1608

## ■ Features

- High fr: fr=400MHz.



## ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	-60	V
Collector-emitter voltage	V <sub>CEO</sub>	-40	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-500	mA
Total power dissipation	P <sub>T</sub>	150	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -40V, I <sub>E</sub> =0			-100	nA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> =0			-100	nA
DC current gain *	h <sub>FE</sub>	V <sub>CE</sub> = -2V, I <sub>C</sub> = -150mA	75	140	300	
Collector-emitter saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-0.45	-0.75	V
Base-emitter saturation voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> = -500mA, I <sub>B</sub> = -50mA		-1	-1.3	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>E</sub> = 20mA	150	400		MHz
Output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f = 1.0MHz		5	8	pF
Turn-on time	t <sub>on</sub>	V <sub>CC</sub> = -30V,		25		ns
Storage time	t <sub>stg</sub>	I <sub>C</sub> = 150mA,		70		ns
Turn-off time	t <sub>off</sub>	I <sub>B1</sub> = -I <sub>B2</sub> = 15mA		100		ns

\*. PW ≤ 350μs, duty cycle ≤ 2%

## ■ hFE Classification

Marking	Y12	Y13	Y14
hFE	75~150	100~200	150~300