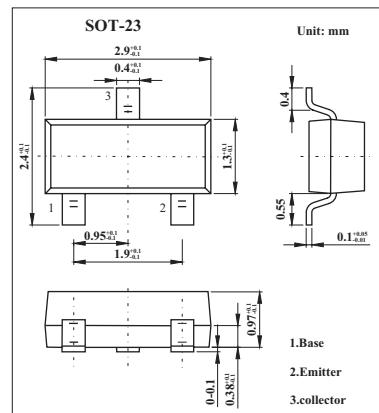


## Silicon NPN Epitaxial

# 2SC3123

### ■ Features

- High Conversion Gain :  $G_{ce}=23\text{dB}(\text{TYP.})$
- Low Reverse Transfer Capacitance :  $C_{re}=0.4\text{F}(\text{TYP.})$



### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CBO</sub>	30	V
Collector-emitter voltage	V <sub>CEO</sub>	20	V
Emitter-base voltage	V <sub>EBO</sub>	3	V
Collector current	I <sub>C</sub>	50	mA
Base current	I <sub>B</sub>	25	mA
Collector Power Dissipation	P <sub>C</sub>	150	mW
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature Range	T <sub>stg</sub>	-55 to +125	°C

### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 25V, I <sub>E</sub> = 0			100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 3V, I <sub>C</sub> = 0			1000	nA
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1mA, I <sub>B</sub> =0	20			V
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 5mA	40	150	300	
Reverse Transfer Capacitance	C <sub>re</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		0.4	0.5	pF
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>C</sub> = 5mA	900	1400		MHz
Conversion Gain	G <sub>ce</sub>	V <sub>CC</sub> =12V, f <sub>L</sub> =260MHz, f=200MHz	20	23		dB
Noise Figure	NF			3.8	5.5	dB

### ■ Marking

Marking	HE
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