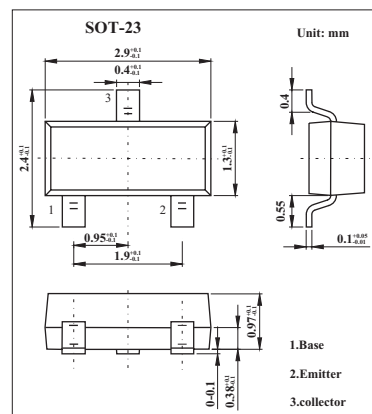


Silicon NPN Epitaxial

2SC3123

■ Features

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

■ 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}	3	V
Collector current	I_C	50	mA
Base current	I_B	25	mA
Collector Power Dissipation	P_C	150	mW
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature Range	T_{stg}	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 25\text{V}, I_E = 0$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3\text{V}, I_C = 0$			1000	nA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, I_B = 0$	20			V
DC current gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$	40	150	300	
Reverse Transfer Capacitance	C_{re}	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		0.4	0.5	pF
Transition Frequency	f_T	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$	900	1400		MHz
Conversion Gain	G_{ce}	$V_{CC} = 12\text{V}, f_L = 260\text{MHz}, f = 200\text{MHz}$	20	23		dB
Noise Figure	NF			3.8	5.5	dB

■ Marking

Marking	HE
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