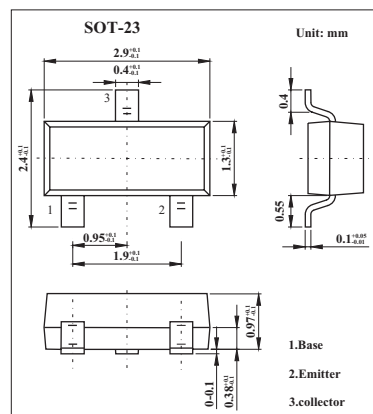


■ Features

- Low noise figure, high gain.
- NF = 1.1dB,  $|S_{21e}|^2 = 11\text{dB}$  (f = 1 GHz)



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	20	V
Collector-emitter voltage	V <sub>CEO</sub>	12	V
Emitter-base voltage	V <sub>EB0</sub>	3	V
Collector current	I <sub>c</sub>	80	mA
Base current	I <sub>B</sub>	40	mA
Collector power dissipation	P <sub>c</sub>	150	mW
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	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>CB0</sub>	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0			1	μA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = 1 V, I <sub>c</sub> = 0			1	μA
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 20mA	30		250	V
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz,		10		pF
Reverse transfer capacitance	C <sub>re</sub>			0.7	1.15	pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 20 mA	5	7		GHz
Insertion gain	$ S_{21e} ^2$ (1)	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 20 mA, f = 500 MHz		16.5		dB
	$ S_{21e} ^2$ (2)	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 20 mA, f = 1 GHz	7.5	11		dB
Noise figure	NF (1)	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 5 mA, f = 500 MHz		1		dB
	NF (2)	V <sub>CE</sub> = 10 V, I <sub>c</sub> = 5 mA, f = 1 GHz		1.1	2	dB

■ Marking

Marking	MH
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