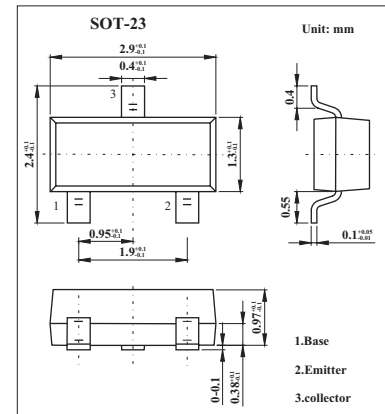


Silicon NPN Epitaxial Planar type

2SC3707

■ Features

- Possible with the small current and low voltage
- High transition frequency f_T
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	10	V
Collector-emitter voltage	V_{CE0}	7	V
Emitter-base voltage	V_{EB0}	2	V
Collector current	I_C	10	mA
Collector power dissipation	P_C	50	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}	$V_{CB} = 10\text{ V}, I_E = 0$			1	μA
Emitter cutoff current	I_{EBO}	$V_{EB} = 1.5\text{ V}, I_C = 0$			1	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 1\text{ V}, I_C = 1\text{ mA}$	50		150	
Transition frequency	f_T	$V_{CE} = 1\text{ V}, I_C = 1\text{ mA}, f = 0.8\text{ GHz}$		4		GHz
Collector output capacitance	C_{ob}	$V_{CB} = 1\text{ V}, I_E = 0, f = 1\text{ MHz}$		0.4		pF
Forward transfer gain	$ S_{21e} ^2$	$V_{CE} = 1\text{ V}, I_C = 1\text{ mA}, f = 0.8\text{ GHz}$		6.0		dB
Maximum unilateral power gain	GUM	$V_{CE} = 1\text{ V}, I_C = 1\text{ mA}, f = 0.8\text{ GHz}$		15		dB
Noise figure	NF	$V_{CE} = 1\text{ V}, I_C = 1\text{ mA}, f = 0.8\text{ GHz}$		3.5		dB

■ Marking

Marking	2X