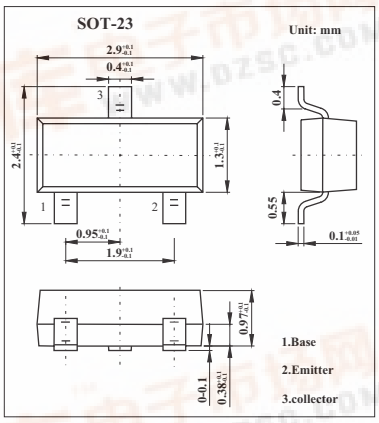
Silicon NPN Epitaxial Planar type

2SC3707



■ Features

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

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	10	V
Collector-emitter voltage	V_{CEO}	7	V
Emitter-base voltage	V_{EBO}	2	V
Collector current	I_C	10	mA
Collector power dissipation	P_C	50	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	V_{CB} = 10 V, I_E = 0			1	μA
Emitter cutoff current	I_{EBO}	V_{EB} = 1.5 V, I_C = 0			1	μA
Forward current transfer ratio	h_{FE}	V_{CE} = 1 V, I_C = 1 mA	50		150	
Transition frequency	f_T	V_{CE} = 1 V, I_C = 1 mA, f = 0.8 GHz		4		GHz
Collector output capacitance	C_{ob}	V_{CB} = 1 V, I_E = 0, f = 1 MHz		0.4		pF
Forward transfer gain	$\|S_{21e}\|^2$	V_{CE} = 1 V, I_C = 1 mA, f = 0.8 GHz		6.0		dB
Maximum unilateral power gain	G_{UM}	V_{CE} = 1 V, I_C = 1 mA, f = 0.8 GHz		15		dB
Noise figure	NF	V_{CE} = 1 V, I_C = 1 mA, f = 0.8 GHz		3.5		dB

■ Marking

Marking	2X