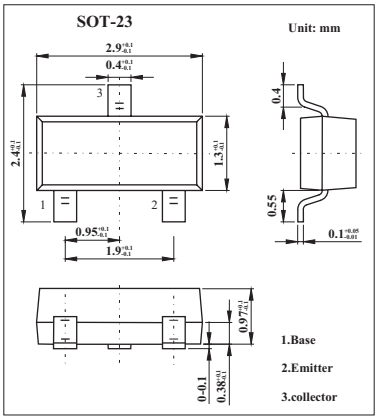
NPN Medium Frequency Transistor

BFS19



Features

- Low current (max. 30 mA)
- Low Voltage (max. 20 V)

Absolute Maximum Ratings T_A=25℃

Parameter	Symbol	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	30	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	30	mA
Peak collector current	I_{CM}	30	mA
Total power dissipation	P_{tot}	250	mW
Storage temperature	T_{stg}	150	℃
Junction temperature	T_j	150	℃
Operating ambient temperature	T_{amb}	150	℃

Electrical Characteristics T_A=25℃±3℃

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base Breakdown voltage	BV_{CBO}	I_C = 100 μA , I_E = 0	30			V
Collector-emitter Breakdown voltage	BV_{CEO}	I_C = 1mA , I_B = 0	20			V
Emitter-base Breakdown voltage	BV_{EBO}	I_E = 100 μA , I_C = 0	5			V
Collector-base cutoff current	I_{CBO}	V_{CB} = 20 V , I_E = 0			100	nA
		V_{CB} = 20 V , I_E = 0, Tj = 100℃			10	μA
Emitter-base cutoff current	I_{EBO}	V_{EB} = 5.0 V , I_C = 0			100	nA
Forward current transfer ratio	h_{FE}	V_{CE} = 10 V , I_C = 1.0 mA	65		225	
Emitter-base voltage	V_{BE}	V_{CE} = 10 V , I_C = 1.0 mA	650		740	mV
Transition frequency	f_T	V_{CE} = 10 V , I_C = 1 mA ,f = 100 MHZ		260		MHz
Collector capacitance	C_C	V_{CB} = 10 V , I_E = 1 mA ,f = 1 MHZ		1		pF
Feedback capacitance	Cre	V_{CB} = 10 V , I_C = 0 mA, f = 1 MHz		0.85		pF

Marking

Marking	F2