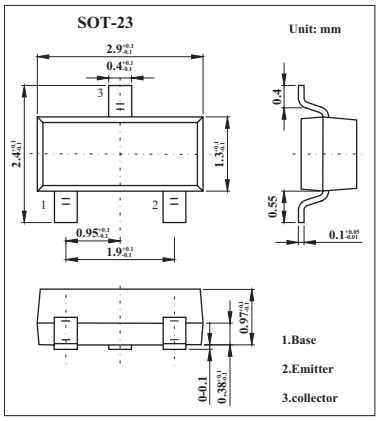
NPN Medium Frequency Transistor

KFS20(BFS20)



■ Features

- ●Low current (max. 25 mA)
- ●Low voltage (max. 20 V)
- ●Very low feedback capacitance (typ. 350 fF).

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	30	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	4	V
Collector current	I_C	25	mA
Peak collector current	I_{CM}	25	mA
power dissipation	P_D	250	mW
Thermal resistance from junction to ambient *	$R_{th\ j\text{-}a}$	500	K/W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

* Transistor mounted on an FR4 printed-circuit board.

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	I_E = 0; V_{CB} = 20 V			100	nA
	I_{CBO}	I_E = 0; V_{CB} = 20 V; T_j = 100 ℃			10	μ A
Emitter cutoff current	I_{EBO}	I_C = 0; V_{EB} = 4V			100	nA
DC current gain	h_{FE}	I_C = 7mA; V_{CE} = 10 V	40	85		
Base to emitter voltage	V_{BE}	I_C = 7 mA; V_{CE} = 10V		740	900	mV
Collector capacitance	C_C	I_E = i_e = 0; V_{CB} = 10 V; f = 1 MHz		1		pF
Freedback capacitance	C_{re}	I_C=0,V_{CB}=10V,f=1MHz		350		pF
Transition frequency	f_T	I_C =5mA; V_{CE} =10 V; f = 100 MHz	275	450		MHz

■ Marking

Marking	G1