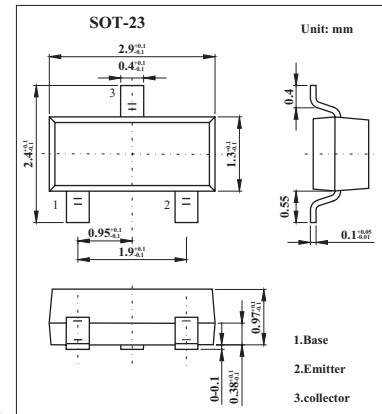


NPN Medium Frequency Transistor

KFS20(BFS20)

■ Features

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



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	30	V
Collector-emitter voltage	V_{CE0}	20	V
Emitter-base voltage	V_{EB0}	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 *	$R_{th\ j-a}$	500	K/W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

* Transistor mounted on an FR4 printed-circuit board.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

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

■ Marking

Marking	G1
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