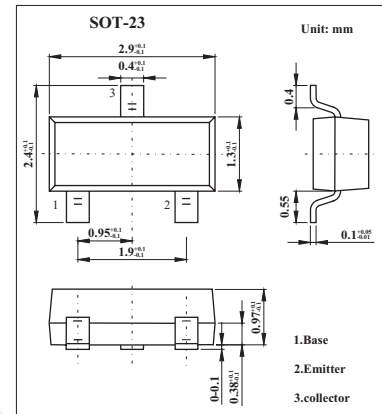


## NPN Medium Frequency Transistor

### 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°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	30	V
Collector-emitter voltage	V <sub>CE0</sub>	20	V
Emitter-base voltage	V <sub>EB0</sub>	4	V
Collector current	I <sub>C</sub>	25	mA
Peak collector current	I <sub>CM</sub>	25	mA
power dissipation	P <sub>D</sub>	250	mW
Thermal resistance from junction to ambient *	R <sub>th j-a</sub>	500	K/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

\* Transistor mounted on an FR4 printed-circuit board.

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CB0</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = 20 V			100	nA
	I <sub>CB0</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = 20 V; T <sub>j</sub> = 100 °C			10	μ A
Emitter cutoff current	I <sub>EB0</sub>	I <sub>C</sub> = 0; V <sub>EB</sub> = 4V			100	nA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = 7mA; V <sub>CE</sub> = 10 V	40	85		
Base to emitter voltage	V <sub>BE</sub>	I <sub>C</sub> = 7 mA; V <sub>CE</sub> = 10V		740	900	mV
Collector capacitance	C <sub>C</sub>	I <sub>E</sub> = i <sub>e</sub> = 0; V <sub>CB</sub> = 10 V; f = 1 MHz		1		pF
Freedback capacitance	C <sub>re</sub>	I <sub>C</sub> =0,V <sub>CB</sub> =10V,f=1MHz		350		pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> =5mA; V <sub>CE</sub> =10 V; f = 100 MHz	275	450		MHz

#### ■ Marking

Marking	G1
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