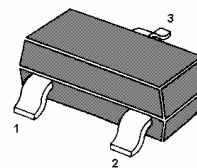


# BFS20

## NPN Silicon Epitaxial Planar Transistor

High frequency transistor for IF and VHF applications



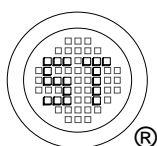
1.BASE 2.EMITTER 3.COLLECTOR  
SOT-23 Plastic Package

### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	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
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 65 to + 150	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 10\text{ V}$ , $I_C = 7\text{ mA}$	$h_{FE}$	40	-	140	-
Collector Cutoff Current at $V_{CB} = 20\text{ V}$	$I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $V_{EB} = 4\text{ V}$	$I_{EBO}$	-	-	100	$\mu\text{A}$
Base Emitter Voltage at $V_{CE} = 10\text{ V}$ , $I_C = 7\text{ mA}$	$V_{BE}$	-	-	0.9	V
Transition Frequency at $V_{CE} = 10\text{ V}$ , $I_C = 5\text{ mA}$ , $f = 100\text{ MHz}$	$f_T$	275	450	-	MHz
Collector Base Capacitance at $V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{OB}$	-	1		pF



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company  
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ISO 14001:2004 Certificate No. 7116  
ISO 9001:2000 Certificate No. 0506098

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