

BFS20 NPN medium frequency transistor

FEATURES

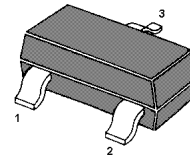
- Low current (max. 25 mA)
- Low voltage (max. 20 V)
- Very low feedback capacitance (typ. 350 fF).

APPLICATIONS

- IF and VHF applications in thick and thin-film circuits.

DESCRIPTION

NPN medium frequency transistor in a SOT23 plastic package.



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

MARKING

TYPE NUMBER	MARKING CODE ⁽¹⁾
BFS20	G1

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

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	$^\circ\text{C}$

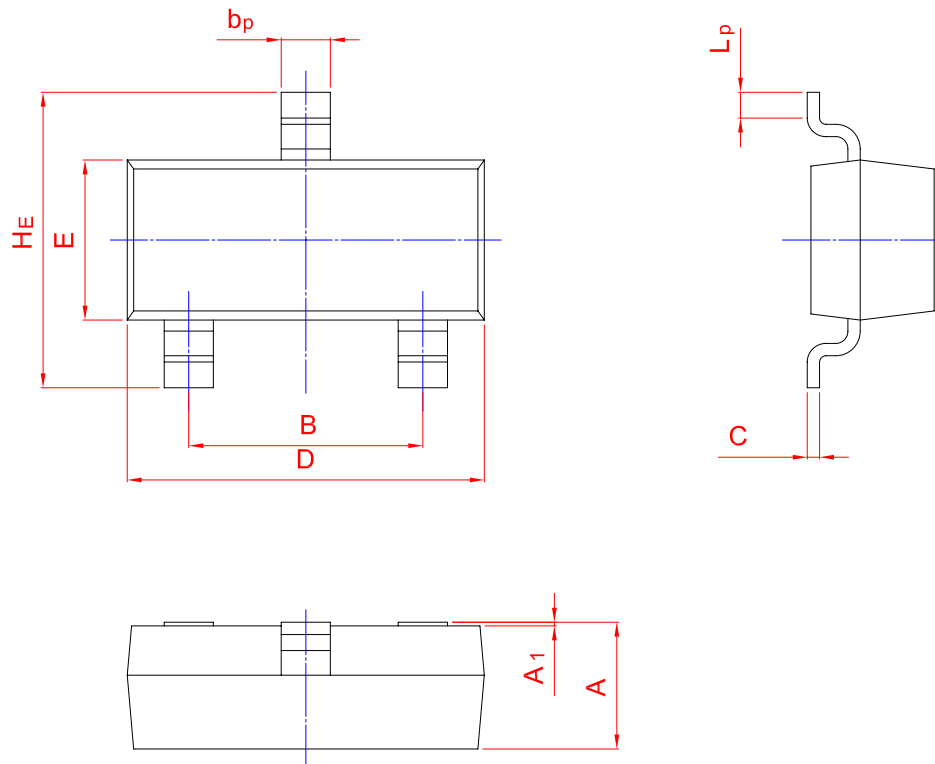
ELECTRICAL CHARACTERISTICS (@ $T_A = 25^\circ\text{C}$ unless otherwise noted)

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	μA
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

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b_p	C	D	E	H_E	A_1	L_p
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20