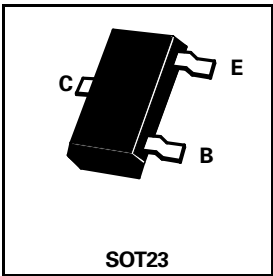


# SOT23 NPN SILICON PLANAR VHF TRANSISTOR

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**BFS20**

PARTMARKING DETAIL — G1



## ABSOLUTE MAXIMUM RATINGS.

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
Peak Pulse Current	$I_{CM}$	25	mA
Continuous Collector Current	$I_C$	25	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

## ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$ ).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector Cut-Off Current	$I_{CBO}$			100 10	nA $\mu A$	$V_{CB}=20V, I_E=0$ $V_{CB}=20V, I_E=0,$ $T_{amb}=100^{\circ}C$
Base-Emitter Voltage	$V_{BE}$		740	900	mV	$I_C=7mA, V_{CE}=10V^*$
Static Forward Current Transfer Ratio	$h_{FE}$	40	85			$I_C=7mA, V_{CE}=10V^*$
Transition Frequency	$f_T$	275	450		MHz	$I_C=5mA, V_{CE}=10V$ $f=100MHz$
Feedback Capacitance	$C_{re}$		0.35	0.40	pF	$I_C=1mA, V_{CE}=10V$ $f=1MHz$
Collector Capacitance	$C_{TC}$		0.8		pF	$I_E=I_e=0, V_{CB}=10V$ $f=1MHz$

\* Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$

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