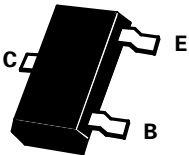


SOT23 NPN SILICON PLANAR VHF TRANSISTOR

ISSUE 3 – JANUARY 1996

BFS20

PARTMARKING DETAIL — G1



SOT23

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 μA	$V_{CB}=20V, I_E=0$ $V_{CB}=20V, I_E=0,$ $T_{amb}=100^{\circ}C$
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 μs . Duty cycle $\leq 2\%$