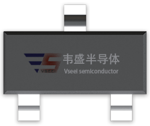
BFS20 TRANSISTOR (NPN)



1.BASE

2.COLLECTOR

3.EMITTER

SOT-23-3

FEATURES

- Very Low Feedback Capacitance
- Low Current
- Low Voltage

APPLICATIONS

- IF and VHF Applications in Thick and Thin-Film Circuits

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current	25	mA
P_C	Collector Power Dissipation	250	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	500	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=0.1mA, I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=20V, I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=15V, I_B=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			0.1	μA
DC current gain	h_{FE}	V_{CE}=10V, I_C=7mA	40		120	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.3	V
Base-emitter voltage	V_{BE}	V_{CE}=10V, I_C=7mA			0.9	V
Transition frequency	f_T	V_{CE}=10V,I_C=5mA, f=100MHz	275			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		1		pF