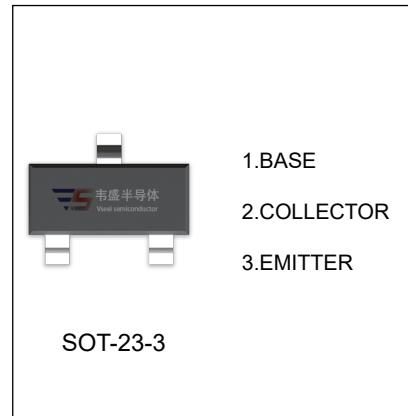


## **BF821/BF823 TRANSISTOR (PNP)**

### **FEATURES**

- Low current (max.-50 mA)
- High voltage (max.-300V)
- Telephony and professional communication equipment.



### **MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)**

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage BF821 BF823	-300 -250	V
$V_{CEO}$	Collector-Emitter Voltage BF821 BF823	-300 -250	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_c$	Collector Current -Continuous	-50	mA
$P_c$	Collector Power Dissipation	0.25	W
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~150	°C

### **ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Max	Unit
<b>Collector-base breakdown voltage</b>	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$ BF821 BF823	-300 -250		V
<b>Collector-emitter breakdown voltage</b>	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$ BF821 BF823	-300 -250		V
<b>Emitter-base breakdown voltage</b>	$V_{(BR)EBO}$	$I_E= -100\mu\text{A}, I_C=0$	-5		V
<b>Collector cut-off current</b>	$I_{CBO}$	$V_{CB}=-200\text{V}, I_E=0$		-0.01	$\mu\text{A}$
<b>Emitter cut-off current</b>	$I_{EBO}$	$V_{EB}=-5\text{V}, I_C=0$		-0.05	$\mu\text{A}$
<b>DC current gain</b>	$h_{FE}$	$V_{CE}=-20\text{V}, I_C=-25\text{mA}$	50		
<b>Collector-emitter saturation voltage</b>	$V_{CE(\text{sat})}$	$I_C=-30\text{mA}, I_B=-5\text{mA}$		-0.8	V
<b>Transition frequency</b>	$f_T$	$V_{CE}=-10\text{V}, I_C= -10\text{mA}, f=100\text{MHz}$	60		MHz
<b>Collector output capacitance</b>	$C_{ob}$	$V_{CB}=-30\text{V}, I_E=0, f=1\text{MHz}$		1.6	pF