

**SOT-23 Plastic-Encapsulate Transistors****BF820/BF822** TRANSISTOR (NPN)

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

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

MARKING: BF820:1V, BF822: 1X**MAXIMUM RATINGS (T_A=25°C unless otherwise noted)**

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	BF820	300
		BF822	250
V _{CEO}	Collector-Emitter Voltage	BF820	300
		BF822	250
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	50	mA
P _C	Collector Power Dissipation	0.25	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

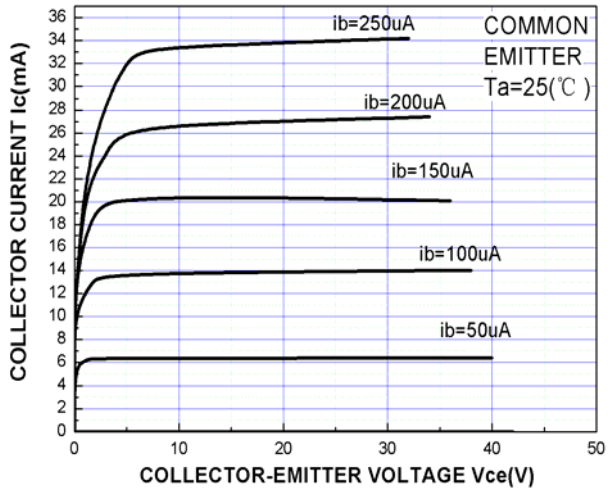
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	BF820	300	V
			BF822	250	
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	BF820	300	V
			BF822	250	
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 100μA, I _C =0	5		V
Collector cut-off current	I _{CBO}	V _{CB} =200V, I _E =0		0.01	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0		0.05	μA
DC current gain	h _{FE}	V _{CE} = 20V, I _C =25mA	50		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =30mA, I _B = 5mA		0.6	V
Transition frequency	f _T	V _{CE} =10V, I _C = 10mA, f=100MHz	60		MHz
Collector output capacitance	C _{ob}	V _{CB} =30V, I _E =0, f=1MHz		1.6	pF

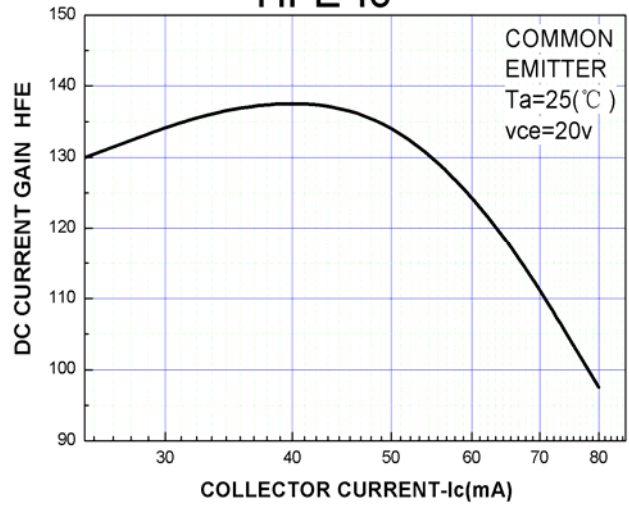
Typical Characteristics

BF820/BF822

Ic-Vce



HFE-Ic



Pc-Ta

