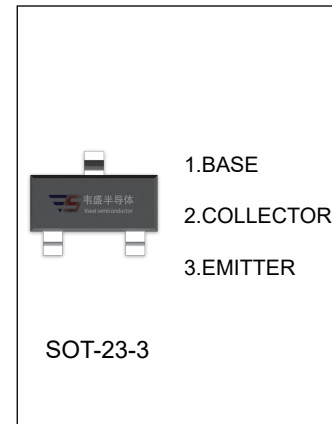


BCX70J, BCX70K TRANSISTOR (NPN)

FEATURES

- Low current
- Low voltage



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	45	V
V _{CEO}	Collector-Emitter Voltage	45	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	200	mA
P _C	Collector Power Dissipation	250	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	45			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =2mA, I _B =0	45			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =1μA, I _C =0	5			V
Collector cut-off current	I _{CES}	V _{CE} =45V, V _{BE} =0			20	nA
DC current gain	BCX70J	h _{FE1}	V _{CE} =5V, I _C =10μA	30		
		h _{FE2}	V _{CE} =5V, I _C =2mA	250		460
		h _{FE3}	V _{CE} =1V, I _C =50mA	90		
DC current gain	BCX70K	h _{FE1}	V _{CE} =5V, I _C =10μA	100		
		h _{FE2}	V _{CE} =5V, I _C =2mA	380		630
		h _{FE3}	V _{CE} =1V, I _C =50mA	100		
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C = 10mA I _B = 0.25 mA	0.05		0.35	V
	V _{CE(sat)2}	I _C = 50mA I _B = 1.25 mA	0.1		0.55	V
Base -emitter saturation voltage	V _{BE(sat)1}	I _C = 10mA I _B = -0.25 mA	0.6		0.85	V
	V _{BE(sat)2}	I _C = 50mA I _B = 1.25 mA	0.7		1.05	V
Base-emitter voltage	V _{BE}	V _{CE} =5V, I _C =2mA	0.55		0.75	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		1.7		pF
Noise Figure	NF	V _{CE} =5V, I _C =200μA, f=1kHz, BW=200Hz, RS=2kΩ			6	dB
Gain-Bandwidth Product	f _T	V _{CE} = 5 V, I _C =10mA, f=100 MHz	100	250		MHz