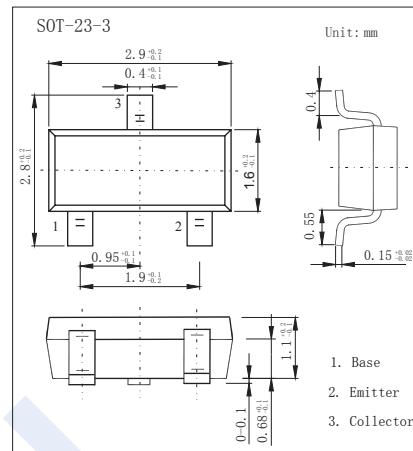


NPN Transistors**BCX70 (KCX70)****■ Features**

- Low current (max. 100 mA)
- Low voltage (max. 45 V).
- PNP complements: BCX71 series.

**■ Absolute Maximum Ratings Ta = 25°C**

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CBO}	45	V
Collector - Emitter Voltage	V _{CEO}	45	
Emitter - Base Voltage	V _{EBO}	5	
Collector Current - Continuous	I _C	100	
Peak Collector Current	I _{CM}	200	mA
Peak Base Current	I _{BM}	200	
Collector Power Dissipation	P _C	250	mW
Thermal Resistance From Junction to Ambient (note.1)	R _{thja}	50	K/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

Note.1: Transistor mounted on an FR4 printed-circuit board.

NPN Transistors**BCX70 (KCX70)**

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _c = 100 μA, I _E = 0	45			V
Collector-emitter breakdown voltage	V _{CEO}	I _c = 1 mA, I _B = 0	45			
Emitter-base breakdown voltage	V _{EBO}	I _E = 100 μA, I _c = 0	5			
Collector-base cut-off current	I _{CBO}	V _{CB} = 45 V, I _E = 0			20	nA
		V _{CB} = 45 V, I _E = 0, T _{amb} = 150°C			20	uA
Emitter cut-off current	I _{EBO}	V _{EB} = 4V, I _c =0			20	nA
Collector-emitter saturation voltage	V _{CES(sat)}	I _c =10 mA, I _B =0.25mA	50		350	mV
		I _c =50 mA, I _B =1.25mA	100		550	
Base-emitter saturation voltage	V _{BE(sat)}	I _c =10 mA, I _B =0.25mA	600		850	
		I _c =50 mA, I _B =1.25mA	700		1050	
Base-emitter voltage	V _{BE}	V _{CE} = 5V, I _c = 10uA		520		
		V _{CE} = 5V, I _c = 2mA	550	650	750	
		V _{CE} = 1V, I _c = 50mA			780	
DC current gain	BCX70G	h _{FE}	-		-	
	BCX70H		40			
	BCX70J		30			
	BCX70K		100			
DC current gain	BCX70G		120		220	
	BCX70H		180		310	
	BCX70J		250		460	
	BCX70K		380		630	
DC current gain	BCX70G	V _{CE} = 1V, I _c = 50mA	50			
	BCX70H		70			
	BCX70J		90			
	BCX70K		100			
Collector capacitance	C _c	V _{CB} = 10V, I _E =I _e =0,f=1MHz		1.7		pF
Emitter capacitance	C _e	V _{EB} = 0.5V, I _c =I _c =0,f=1MHz		11		
Noise figure	NF	I _c = 200 uA; V _{CE} = 5 V; R _s = 2 kΩ; f = 1 kHz; B = 200 Hz		2	6	dB
Transition frequency	f _T	V _{CE} = 5V, I _c = 10mA,f=100MHz	100	250		MHz

■ Classification of h_{fe}(2)

Type	BCX70G	BCX70H	BCX70J	BCX70K
Range	120-220	180-310	250-460	380-630
Marking	AG*	AH*	AJ*	AK*