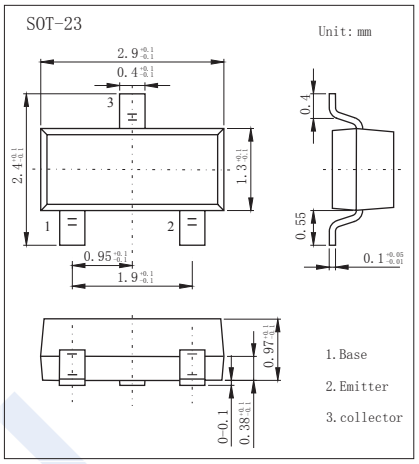
NPN Transistors

BCX19 (KCX19)



■ Features

- Collector Current Capability I_C=0.5A
- Collector Emitter Voltage V_{CEO}=45V
- Low voltage

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	50	V
Collector - Emitter Voltage	V_{CEO}	45	
Emitter - Base Voltage	V_{EBO}	5	
Collector Current - Continuous	I_C	500	mA
Collector Power Dissipation	P_C	225	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	50			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	45			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	5			
Collector-base cut-off current	I_{CBO}	V_{CB}= 50 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500 mA, I_B=50mA			0.62	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C= 500 mA, I_B= 50mA			1.2	
Base-emitter voltage	$V_{BE(on)}$	V_{CE}= 1V, I_C= 500mA			1.2	
DC current gain	$h_{FE(1)}$	V_{CE}= 1V, I_C= 100mA	100		600	
	$h_{FE(2)}$	V_{CE}= 1V, I_C= 300mA	70			
	$h_{FE(3)}$	V_{CE}= 1V, I_C= 500mA	40			
Collector capacitance	C_C	V_{CB}= 10V, I_E=Ie=0,f=1MHz		5		pF
Transition frequency	f_T	V_{CE}= 5V, I_C= 10mA,f=100MHz	100			MHz

■ Marking

Marking	U1

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■ Typical Characterisitics