

# BCX71K

# PNP EPITAXIAL SILICON TRANSISTOR

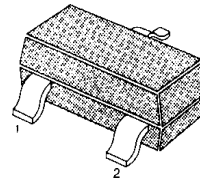
## GENERAL PURPOSE TRANSISTOR

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-45	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-45	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5.0	V
Collector Current	I <sub>C</sub>	-100	mA
Collector Dissipation	P <sub>C</sub>	350	mW
Storage Temperature	T <sub>STG</sub>	150	°C

• Refer to KST5086 for graphs

SOT-23

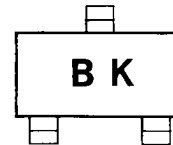


1. Base 2. Emitter 3. Collector

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Characteristic	Symbol	Test Conditions	Min	Max	Unit
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = -2mA, I <sub>B</sub> =0	-45		V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	I <sub>E</sub> = -1μA, I <sub>C</sub> =0	-5		V
Collector Cut-off Current	I <sub>CES</sub>	V <sub>CE</sub> = -32V, V <sub>BE</sub> =0		-20	nA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -5V, I <sub>C</sub> = -10μA	100		
		V <sub>CE</sub> = -5V, I <sub>C</sub> = -2mA	380	630	
		V <sub>CE</sub> = -1V, I <sub>C</sub> = -50mA	110		
Collector-Emitter Saturation Voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.25mA		-0.25	V
		I <sub>C</sub> = -50mA, I <sub>B</sub> = -1.25mA		-0.55	V
Base-Emitter Saturation Voltage	V <sub>BE</sub> (sat)	I <sub>C</sub> = -10mA, I <sub>B</sub> = -0.25mA	-0.6	-0.85	V
		I <sub>C</sub> = -50mA, I <sub>B</sub> = -1.25mA	-0.68	-1.05	V
Base-Emitter On Voltage	V <sub>BE</sub> (on)	I <sub>C</sub> = -2mA, V <sub>CE</sub> = -5V	-0.6	-0.75	V
Current Gain Bandwidth Product	C <sub>OB</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> =0		6	pF
		f=1MHz			
Noise Figure	NF	I <sub>C</sub> = -0.2mA, V <sub>CE</sub> = -5V R <sub>S</sub> =2KΩ, f=1KHz		6	dB
Turn On Time	T <sub>ON</sub>	I <sub>C</sub> = -10mA, I <sub>B1</sub> = -1mA		150	ns
Turn Off Time	T <sub>OFF</sub>	I <sub>B2</sub> = -1mA, V <sub>BB</sub> = -3.6V R <sub>L</sub> =990Ω		800	ns

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