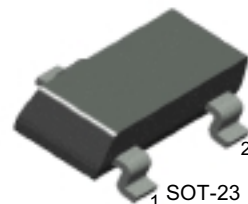


## BCX71J

### General Purpose Transistor



SOT-23

1. Base 2. Emitter 3. Collector

### PNP Epitaxial Silicon Transistor

#### Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

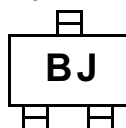
Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-45	V
$V_{CEO}$	Collector-Emitter Voltage	-45	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-100	mA
$P_C$	Collector Dissipation	350	mW
$T_{STG}$	Storage Temperature	150	$^\circ\text{C}$

• Refer to KST5086 for graphs

#### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

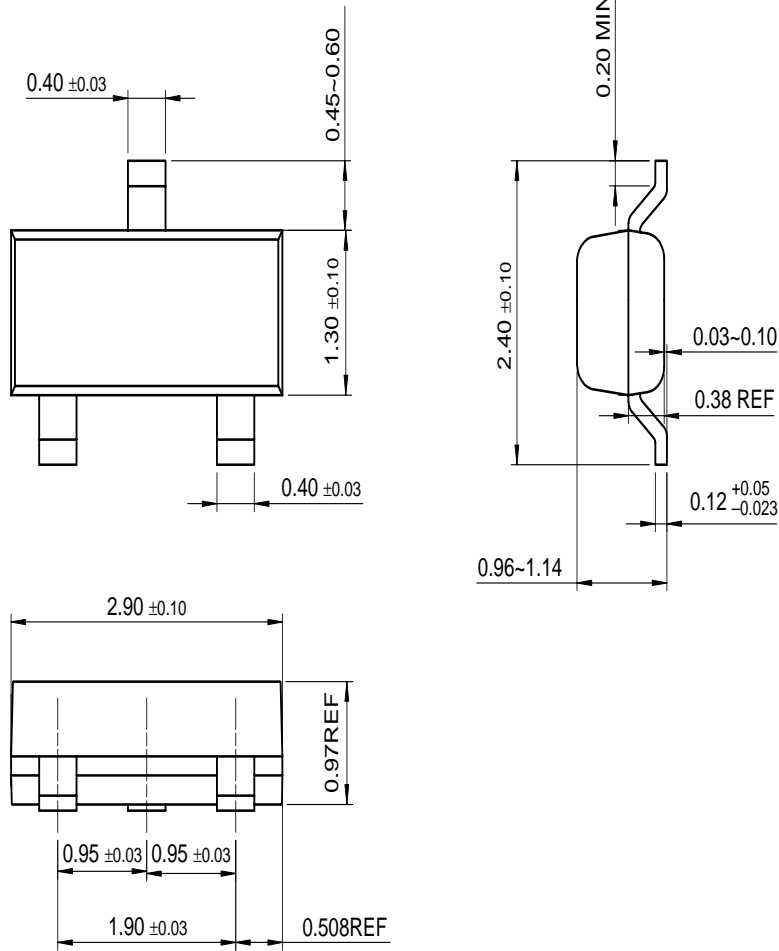
Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -2\text{mA}, I_B = 0$	-45		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -1\mu\text{A}, I_C = 0$	-5		V
$I_{CES}$	Collector Cut-off Current	$V_{CE} = -32\text{V}, V_{BE} = 0$		-20	nA
$h_{FE}$	DC Current Gain	$V_{CE} = -5\text{V}, I_C = -10\mu\text{A}$ $V_{CE} = -5\text{V}, I_C = -2\text{mA}$ $V_{CE} = -1\text{V}, I_C = -50\text{mA}$	40 250 100	460	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$ $I_C = -50\text{mA}, I_B = -1.25\text{mA}$		-0.25 -0.55	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = -10\text{mA}, I_B = -0.25\text{mA}$ $I_C = -50\text{mA}, I_B = -1.25\text{mA}$	-0.6 -0.68	-0.85 -1.05	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	-0.6	-0.75	V
$C_{ob}$	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		6	pF
NF	Noise Figure	$I_C = -0.2\text{mA}, V_{CE} = -5\text{V}$ $f = 1\text{KHz}, R_S = 2\text{K}\Omega$		6	dB
$t_{ON}$	Turn On Time	$I_C = -10\text{mA}, I_{B1} = -1\text{mA}$		150	ns
$t_{OFF}$	Turn Off Time	$I_{B2} = -1\text{mA}, V_{BB} = -3.6\text{V}$ $R_L = 990\Omega$		800	ns

#### Marking



Package Dimensions

SOT-23



Dimensions in Millimeters

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CROSSVOLT™	POP™	UHC™
E <sup>2</sup> CMOS™	PowerTrench®	VCX™
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FAST®	Quiet Series™	
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