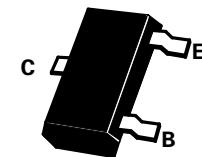


SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTORS

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**BCV71
BCV72**

PARTMARKING DETAIL: — BCV71 — K7
 BCV72 — K8
 BCV71R — K6
 BCV72R — K9



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	200	mA
Continuous Collector Current	I_C	100	mA
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector- base Cut-Off Current	I_{CBO}			100 10	nA mA	$V_{CB}=20V$ $V_{CB}=20V, T_{amb}=100^\circ\text{C}$
Base - Emitter Voltage	V_{BE}	550		750	mV	$I_C=2\text{mA}, V_{CE}=5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(\text{sat})}$		120 210	250	mV mV	$I_C=10\text{mA}, I_B=0.5\text{mA}$ $I_C=50\text{mA}, I_B=2.5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(\text{sat})}$		750 850		mV mV	$I_C=10\text{mA}, I_B=0.5\text{mA}$ $I_C=50\text{mA}, I_B=2.5\text{mA}$
Static Forward Current Transfer Ratio	h_{FE}	110 200	90 150	220 450		$I_C=10\text{mA}, V_{CE}=5\text{V}$ $I_C=2\text{mA}, V_{CE}=5\text{V}$ $I_C=10\text{mA}, V_{CE}=5\text{V}$ $I_C=2\text{mA}, V_{CE}=5\text{V}$
Transition Frequency	f_T		300		MHz	$I_C=10\text{mA}, V_{CE}=5\text{V}$ $f = 35\text{MHz}$
Collector Capacitance	C_{TC}			4	pF	$I_E = I_{\bar{E}} = 0, V_{CB} = 10\text{V}$ $f = 1\text{MHz}$
Noise Figure	N			10	dB	$I_C = 200\mu\text{A}, V_{CE} = 5\text{V}$ $R_S = 2\text{k}\Omega, f = 1\text{KHz}$ $B = 200\text{Hz}$

Spice parameter data is available upon request for this device