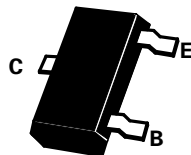


SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTORS

ISSUE 2 – FEBRUARY 95

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 $T_{amb}=25^{\circ}C$	P_{tot}	330	mW
Operating and Storage Temperature Range	$T_j; T_{stg}$	-55 to +150	$^{\circ}C$

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.	
Collector- base Cut-Off Current	I_{CBO}			100 10	nA mA	$V_{CB}=20V$ $V_{CB}=20V, T_{amb}=100^{\circ}C$	
Base - Emitter Voltage	V_{BE}	550		750	mV	$I_C=2mA, V_{CE}=5V$	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		120 210	250	mV mV	$I_C=10mA, I_B=0.5mA$ $I_C=50mA, I_B=2.5mA$	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		750 850		mV mV	$I_C=10mA, I_B=0.5mA$ $I_C=50mA, I_B=2.5mA$	
Static Forward Current Transfer Ratio	BCV71 BCV72	h_{FE}	110	90	220		$I_C=10mA, V_{CE}=5V$ $I_C=2mA, V_{CE}=5V$
			200	150	450		$I_C=10mA, V_{CE}=5V$ $I_C=2mA, V_{CE}=5V$
Transition Frequency	f_T		300		MHz	$I_C=10mA, V_{CE}=5V$ $f=35MHz$	
Collector Capacitance	C_{TC}			4	pF	$I_E=I_B=0, V_{CB}=10V$ $f=1MHz$	
Noise Figure	N			10	dB	$I_C=200\mu A, V_{CE}=5V$ $R_S=2K\Omega, f=1KHz$ B=200Hz	

Spice parameter data is available upon request for this device