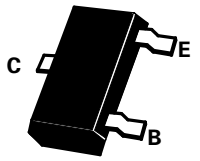
SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTORS

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°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°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°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	h_{FE}	110	90	220		I_C=10mA, V_{CE}=5V I_C=2mA, V_{CE}=5V
Static Forward Current Transfer Ratio BCV72	h_{FE}	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_e =0, V_{CB} = 10V f= 1MHz
Noise Figure	N			10	dB	I_C= 200μA, V_{CE} = 5V R_S =2KΩ, f=1KHz B= 200Hz

Spice parameter data is available upon request for this device