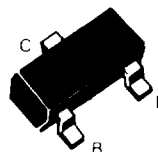


SOT23 NPN SILICON PLANAR SMALL SIGNAL TRANSISTOR

BCV71
BCV72

PARTMARKING DETAILS:-

BVC71 – K7
BCV72 – K8
BCV71R – K6
BCV72R – K9



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	tj:tstg	- 55 to + 150	$^\circ\text{C}$

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 μA	$I_E = 0, V_{CB} = 20\text{V}$ $I_E = 0, V_{CB} = 20\text{V}$ $T_J = 100^\circ\text{C}$
Base-Emitter Voltage	V_{BE}	550		750	mV	$I_C = 2\text{mA}, V_{CE} = 5\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$		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	$V_{BE(SAT)}$		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}		90	220		$I_C = 10\mu\text{A}, V_{CE} = 5\text{V}$ $I_C = 2\text{mA}, V_{CE} = 5\text{V}$ $I_C = 10\mu\text{A}, V_{CE} = 5\text{V}$ $I_C = 2\text{mA}, V_{CE} = 5\text{V}$
	BCV71	110				
	BCV72	200	150	450		
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	$I_E = I_e = 0, V_{CB} = 10\text{V}$ $f = 1\text{MHz}$
Noise Figure	N			10	dB	$I_C = 200\mu\text{A}, V_{CE} = 5\text{V}$ $R_S = 2\text{k}\Omega, f = 1\text{kHz}$ $B = 200\text{Hz}$