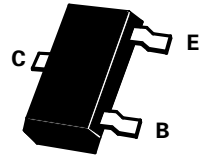


SOT23 NPN PLANAR SMALL SIGNAL TRANSISTORS

ISSUE 2 – FEBRUARY 1995

BCW71
BCW72

PARTMARKING DETAILS – BCW71 – K1
 BCW72 – K2
 BCW71R – K4
 BCW72R – K5



SOT23

ABSOLUTE MAXIMUM RATINGS.

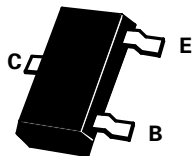
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	45	V
Emitter-Base Voltage	V_{EBO}	5	V
Peak Pulse Current	I_{CM}	200	mA
Continuous Collector Current	I_C	100	mA
Power Dissipation at $T_{amb}=25^{\circ}C$	P_{TOT}	330	mW
Operating and Storage Temperature Range	tj:tstg	-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 μA	$I_E=0$, $V_{CB}=20V$ $I_E=0$, $V_{CB}=20V$, $T_j=100^{\circ}C$
Base-Emitter Voltage	V_{BE}	550		700	mV	$I_C=2.0mA$, $V_{CE}=5V$
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	h_{FE}	110 200	90 150	220 450		$I_C=10\mu A$, $V_{CE}=5V$ $I_C=2mA$, $V_{CE}=5V$ $I_C=10\mu A$, $V_{CE}=5V$ $I_C=2mA$, $V_{CE}=5V$
Transition Frequency	f_T		300		MHz	$I_C=10mA$, $V_{CE}=5V$ $f=35MHz$
Collector Capacitance	C_{TC}			4	pF	$I_E=I_c=0$, $V_{CB}=10V$ $f=1MHz$
Noise Figure	N			10	dB	$I_C=200\mu A$, $V_{CE}=5V$ $R_S=2K\Omega$, $f=1KHz$ $B=200Hz$

*Measured under pulsed conditions. Pulse width=300 μs . Duty cycle $\leq 2\%$
Spice parameter data is available upon request for these devices

BCW71
BCW72



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	2.67	3.05	0.105	0.120
B	1.20	1.40	0.047	0.055
C	–	1.10	–	0.043
D	0.37	0.53	0.0145	0.021
F	0.085	0.15	0.0033	0.0059
G	NOM 1.9		NOM 0.075	
K	0.01	0.10	0.0004	0.004
L	2.10	2.50	0.0825	0.0985
N	NOM 0.95		NOM 0.37	

