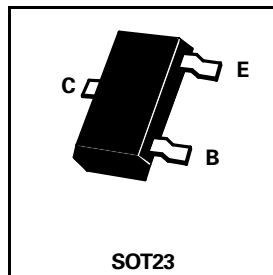


# SOT23 PNP PLANAR SMALL SIGNAL TRANSISTORS

ISSUE 2 - FEBRUARY 1995

## BCW69 BCW70

PARTMARKING DETAILS -    BCW69    - H1  
    BCW70    - H2  
    BCW69R   - H4  
    BCW70R   - H5



### ABSOLUTE MAXIMUM RATINGS.

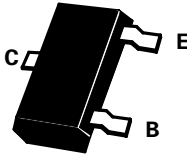
PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Collector-Emitter Voltage ( $I_C=2mA$ )	$V_{CEO}$	-45	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Peak Pulse Current	$I_{CM}$	-200	mA
Continuous Collector Current	$I_C$	-100	A
Power Dissipation at $T_{amb}=25^{\circ}C$	$P_{tot}$	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).

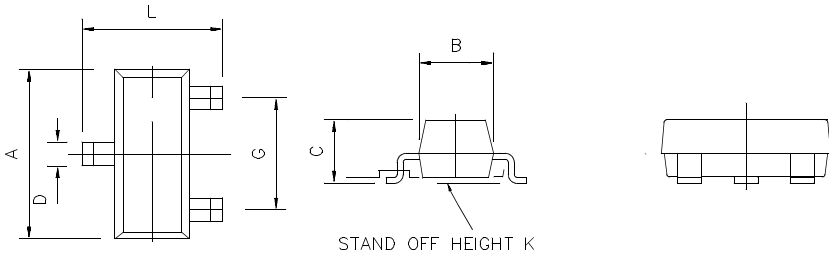
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Cut-Off Current	$I_{CBO}$			-100 -10	nA $\mu A$	$I_E=0, V_{CB}=-20V$ $I_E=0,$ $V_{CB}=-20V, T_j=100^{\circ}C$
Base-Emitter Voltage	$V_{BE}$	-600		-750	mV	$I_C=-2.0mA, V_{CE}=-5V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-80 -150	-300	mV mV	$I_C=-10mA, I_B=-0.5mA$ $I_C=-50mA, I_B=-2.5mA$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-720 -810		mV mV	$I_C=-10mA, I_B=-0.5mA$ $I_C=-50mA, I_B=-2.5mA$
Static Forward Current Transfer Ratio	BCW69 $h_{FE}$ BCW70	120	90	260		$I_C = -10\mu A, V_{CE} = -5V$ $I_C = -2mA, V_{CE} = -5V$
		215	150	500		$I_C = -10\mu A, V_{CE} = -5V$ $I_C = -2mA, V_{CE} = -5V$
Transition Frequency	$f_T$		150		MHz	$I_C = -10mA, V_{CE} = -5V$ $f = 35MHz$
Collector Capacitance	$C_{TC}$			7	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

\*Measured under pulsed conditions. Pulse width=300 $\mu s$ . Duty cycle  $\leq 2\%$

# BCW69 BCW70



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	



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