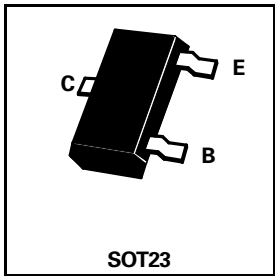


SOT23 PNP PLANAR SMALL SIGNAL TRANSISTORS

ISSUE 2 – FEBRUARY 1995

BCW89

PARTMARKING DETAILS – BCW89 – H3
BCW89R – H6



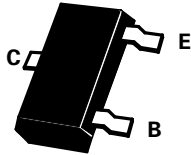
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CES}	-60	V
Collector-Emitter Voltage ($I_C = -2mA$)	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Peak Collector Current	I_{CM}	-200	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	$^\circ C$

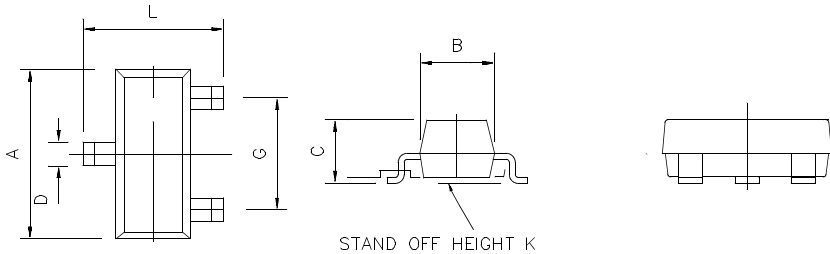
ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ C$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Cut-Off Current	I_{CBO}			-100 -10	nA μA	$I_E = 0, V_{CB} = -20V$ $I_E = 0, V_{CB} = -20V, T_j = 100^\circ C$
Base-Emitter Voltage	V_{BE}	-600		-750	mV	$I_C = -2.0mA, V_{CE} = -5.0V$
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	h_{FE}	120	90	260		$I_C = -10\mu A, V_{CE} = -5.0V$ $I_C = -2.0mA, V_{CE} = -5.0V$
Transition Frequency	f_T		150		MHz	$I_C = -10mA, V_{CE} = -5.0V$ $f = 35MHz$
Collector Capacitance	C_{TC}			7	pF	$I_E = I_B = 0, V_{CB} = -10V$ $f = 1MHz$
Noise Figure	N			10	dB	$I_C = -200\mu A, V_{CE} = -5.0V$ $R_S = 2.0K\Omega, f = 1KHz$ $B = 200Hz$

Spice parameter data is available upon request for this device



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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