



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



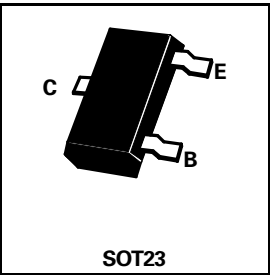
SOT23 NPN SILICON PLANAR MEDIUM POWER TRANSISTORS

BCW65
BCW66

ISSUE 3 - AUGUST 1995

PARTMARKING DETAILS -

BCW65A - EA	BCW65AR - 4V
BCW65B - EB	BCW65BR - 5V
BCW65C - EC	BCW65CR - 6V
BCW66F - EF	BCW66FR - 7P
BCW66G - EG	BCW66GR - 5T
BCW66H - EH	BCW66HR - 7M



COMPLEMENTARY TYPES -

BCW65 - BCW67
BCW66 - BCW68

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	BCW65	BCW66	UNIT
Collector-Base Voltage	V_{CBO}	60	75	V
Collector-Emitter Voltage	V_{CEO}	32	45	V
Emitter-Base Voltage	V_{EBO}	5		V
Continuous Collector Current	I_C	800		mA
Peak Collector Current(10ms)	I_{CM}	1000		mA
Base Current	I_B	100		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		$^{\circ}C$

BCW65 BCW66

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage	BCW65 BCW66	$V_{(BR)CEO}$	32 45			V $I_{CEO}=10\text{mA}$ $I_{CEO}=10\text{mA}$
	BCW65 BCW66	$V_{(BR)CES}$	60 75			V $I_C=10\mu\text{A}$ $I_C=10\mu\text{A}$
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	5			V $I_{EBO}=10\mu\text{A}$
Collector-Emitter Cut-off Current	BCW65 BCW66	I_{CES}		20 20	nA μA	$V_{CES} = 32\text{V}$ $V_{CES} = 32\text{V}, T_{amb}=150^{\circ}\text{C}$ $V_{CES} = 45\text{V}$ $V_{CES} = 45\text{V}, T_{amb}=150^{\circ}\text{C}$
Emitter-Base Cut-Off Current		I_{EBO}		20	nA	$V_{EBO}=4\text{V}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		0.3 0.7	V V	$I_C=100\text{mA}, I_B=10\text{mA}$ $I_C=500\text{mA}, I_B=50\text{mA}^*$
Base-Emitter Saturation Voltage		$V_{BE(SAT)}$		2	V	$I_C=500\text{mA}, I_B=50\text{mA}^*$
Static Forward Current Transfer	BCW65A BCW66F	h_{FE}	35 75 100 35	160	250	$I_C=100\mu\text{A}, V_{CE}=10\text{V}$ $I_C=10\text{mA}, V_{CE}=1\text{V}$ $I_C=100\text{mA}, V_{CE}=1\text{V}^*$ $I_C=500\text{mA}, V_{CE}=2\text{V}^*$
	BCW65B BCW66G	h_{FE}	50 110 160 60	250	400	$I_C=100\mu\text{A}, V_{CE}=10\text{V}$ $I_C=10\text{mA}, V_{CE}=1\text{V}$ $I_C=100\text{mA}, V_{CE}=1\text{V}^*$ $I_C=500\text{mA}, V_{CE}=2\text{V}^*$
	BCW65C BCW66H	h_{FE}	80 180 250 100	350	630	$I_C=100\mu\text{A}, V_{CE}=10\text{V}$ $I_C=10\text{mA}, V_{CE}=1\text{V}$ $I_C=100\text{mA}, V_{CE}=1\text{V}^*$ $I_C=500\text{mA}, V_{CE}=2\text{V}^*$
Transition Frequency		f_T	100		MHz	$I_C=20\text{mA}, V_{CE}=10\text{V}$ $f=100\text{MHz}$
Collector-Base Capacitance		C_{cbo}		8	12	pF $V_{CBO}=10\text{V}, f=1\text{MHz}$
Emitter-Base Capacitance		C_{ebo}			80	pF $V_{EBO}=0.5\text{V}, f=1\text{MHz}$
Noise Figure		N		2	10	dB $I_C=0.2\text{mA}, V_{CE}=5\text{V}$ $R_G=1\text{k}\Omega$
Switching times: Turn-On Time Turn-Off Time		t_{on} t_{off}			100 400	ns ns $I_C=150\text{mA}$ $I_{B1}=I_{B2}=15\text{mA}$ $R_L=150\Omega$

Spice parameter data is available upon request for this device

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