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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.

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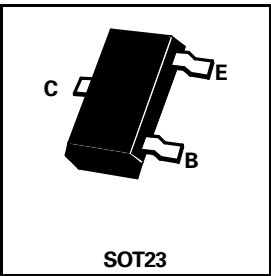
# SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**BCW67  
BCW68**

**ISSUE 4 - JUNE 1996**

**PARTMARKING DETAILS –**

BCW67A – DA	BCW67AR – 4W
BCW67B – DB	BCW67BR – 5W
BCW67C – DC	BCW67CR – 6W
BCW68F – DF	BCW68FR – 7T
BCW68G – DG	BCW68GR – 5T
BCW68H – DH	BCW68HR – 7N



**COMPLEMENTARY TYPES –**

BCW67 – BCW65  
BCW68 – BCW66

**ABSOLUTE MAXIMUM RATINGS.**

PARAMETER	SYMBOL	BCW67	BCW68	UNIT
Collector-Emitter Voltage	$V_{CES}$	-45	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-32	-45	V
Emitter-Base Voltage	$V_{EBO}$	-5		V
Peak Pulse Current(10ms)	$I_{CM}$	-1000		mA
Continuous Collector Current	$I_C$	-800		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		$^{\circ}C$

# BCW67 BCW68

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

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage	BCW67	$V_{(BR)CEO}$	-32			V	$I_{CEO} = -10\text{mA}$ $I_{CEO} = -10\text{mA}$
	BCW68		-45				
	BCW67	$V_{(BR)CES}$	-45				$I_C = -10\mu\text{A}$ $I_C = -10\mu\text{A}$
	BCW68		-60				
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	$I_{EBO} = -10\mu\text{A}$
Collector-Emitter Cut-off Current	BCW67	$I_{CES}$			-20 -10	nA $\mu\text{A}$	$V_{CES} = -32\text{V}$ $V_{CES} = -32\text{V}$ , $T_{amb} = 150^{\circ}\text{C}$
	BCW68				-20 -10		
Emitter-Base Cut-Off Current		$I_{EBO}$			-20	nA	$V_{EBO} = -4\text{V}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		-0.7	-0.3	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	BCW67A BCW68F	$h_{FE}$	75 100 35	170	250		$I_C = -10\text{mA}$ , $V_{CE} = -1\text{V}$ $I_C = -100\text{mA}$ , $V_{CE} = -1\text{V}^*$ $I_C = -500\text{mA}$ , $V_{CE} = -2\text{V}^*$
	BCW67B BCW68G		120 160 60	250	400		$I_C = -10\text{mA}$ , $V_{CE} = -1\text{V}$ $I_C = -100\text{mA}$ , $V_{CE} = -1\text{V}^*$ $I_C = -500\text{mA}$ , $V_{CE} = -2\text{V}^*$
	BCW67C BCW68H		180 250 100	350	630		$I_C = -10\text{mA}$ , $V_{CE} = -1\text{V}$ $I_C = -100\text{mA}$ , $V_{CE} = -1\text{V}^*$ $I_C = -500\text{mA}$ , $V_{CE} = -2\text{V}^*$
Transition Frequency		$f_T$	100			MHz	$I_C = -20\text{mA}$ , $V_{CE} = -10\text{V}$ $f = 100\text{MHz}$
Collector-Base Capacitance		$C_{cbo}$		12	18	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	$I_C = -0.2\text{mA}$ , $V_{CE} = -5\text{V}$ $R_G = 1\text{K}\Omega$ , $f = 1\text{KHz}$ $\Delta f = 200\text{Hz}$
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 $\mu\text{s}$ . Duty cycle  $\leq 2\%$