

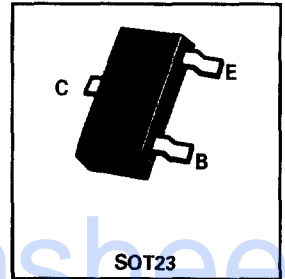
SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTORS

**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	$I_{CEO} = -10\text{mA}$
	BCW68		-45				$I_{CEO} = -10\text{mA}$
	BCW67	$V_{(BR)CES}$	-45				$I_C = -10\mu\text{A}$
	BCW68		-60				$I_C = -10\mu\text{A}$
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	$I_{EBO} = -10\mu\text{A}$
Collector-Emitter Cut-off Current	BCW67	I_{CES}			-20	nA	$V_{CES} = -32\text{V}$
	BCW68				-10	μA	$V_{CES} = -32\text{V}$, $T_{amb} = 150^{\circ}\text{C}$
					-20	nA	$V_{CES} = -45\text{V}$
					-10	μA	$V_{CES} = -45\text{V}$, $T_{amb} = 150^{\circ}\text{C}$
Emitter-Base Cut-Off Current		I_{EBO}			-20	nA	$V_{EBO} = -4\text{V}$
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		-0.7	-0.3	V	$I_C = -100\text{mA}$, $I_B = -10\text{mA}$
						V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}^*$
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			-2	V	$I_C = -500\text{mA}$, $I_B = -50\text{mA}^*$
Static Forward Current Transfer	BCW67A	h_{FE}	75				$I_C = -10\text{mA}$, $V_{CE} = -1\text{V}$
	BCW68F		100	170	250		$I_C = -100\text{mA}$, $V_{CE} = -1\text{V}^*$
			35				$I_C = -500\text{mA}$, $V_{CE} = -2\text{V}^*$
	BCW67B	h_{FE}	120				$I_C = -10\text{mA}$, $V_{CE} = -1\text{V}$
	BCW68G		160	250	400		$I_C = -100\text{mA}$, $V_{CE} = -1\text{V}^*$
			60				$I_C = -500\text{mA}$, $V_{CE} = -2\text{V}^*$
	BCW67C	h_{FE}	180				$I_C = -10\text{mA}$, $V_{CE} = -1\text{V}$
	BCW68H		250	350	630		$I_C = -100\text{mA}$, $V_{CE} = -1\text{V}^*$
			100				$I_C = -500\text{mA}$, $V_{CE} = -2\text{V}^*$
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		t_{on}			100	ns	$I_C = -150\text{mA}$
Turn-Off Time		t_{off}			400	ns	$I_{B1} = -I_{B2} = -15\text{mA}$ $R_L = 150\Omega$

Spice parameter data is available upon request for this device

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