SOT23 PNP SILICON PLANAR MEDIUM POWER TRANSISTOR

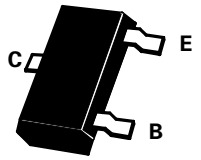
BCW68

ISSUE 5 - MARCH 2001

PARTMARKING DETAILS –

BCW68F –	DF	BCW68FR –	7T
BCW68G –	DG	BCW68GR –	5T
BCW68H –	DH	BCW68HR –	7N

COMPLEMENTARY TYPES – BCW66



SOT23

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Emitter Voltage	V_{CES}	-60	V
Collector-Emitter Voltage	V_{CEO}	-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°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	-45			V	I_{CEO}=-10mA
		$V_{(BR)CES}$	-60				IC=-10μA
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	I_{EBO} =-10μA
Collector-Emitter Cut-off Current		I_{CES}			-20 -10	nA μA	V_{CES} =-45V V_{CES} =-45V, T_{amb}=150°C
Emitter-Base Cut-Off Current		I_{EBO}			-20	nA	V_{EBO} =-4V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		-0.7	-0.3	V V	I_C=-100mA, I_B = -10mA I_C= -500mA, I_B =-50mA*
Base-Emitter Saturation Voltage		$V_{BE(sat)}$			-2	V	I_C=-500mA,I_B=-50mA*
Static Forward Current Transfer	BCW68F	h_{FE}	100 35	170	250		I_C=-100mA, V_{CE} =-1V* I_C=-500mA, V_{CE} =-2V*
	BCW68G	h_{FE}	160 60	250	400		I_C=-100mA, V_{CE} =-1V* I_C=-500mA, V_{CE} =-2V*
	BCW68H	h_{FE}	250 100	350	630		I_C=-100mA, V_{CE} =-1V* I_C=-500mA, V_{CE} =-2V*
Transition Frequency		f_T	100			MHz	I_C =-20mA, V_{CE} =-10V f = 100MHz
Output Capacitance		C_{obo}		12	18	pF	V_{CB} =-10V, f =1MHz
Input Capacitance		C_{ibo}			80	pF	V_{EB} =-0.5V, f =1MHz
Noise Figure		N		2	10	dB	I_C= -0.2mA, V_{CE} =- 5V R_G =1KΩ, f=1KH Δf=200Hz
Switching times: Turn-On Time Turn-Off Time		 t_{on} t_{off}			 100 400	 ns ns	 I_C=-150mA I_{B1}=- I_{B2} =-15mA R_L=150Ω

Spice parameter data is available upon request for this device
*Measured under pulsed conditions.

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