THE DATASHEET OF

BCW61DTA

BCW61

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

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	-32			V	I_{CEO}=-2mA
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	-5			V	I_{EBO}=-1μA
Collector-Emitter Cut-off Current		I_{CES}			-20 -20	nA μA	V_{CES}=-32V V_{CES}=-32V ,T_{amb}=150°C
Emitter-Base Cut-Off Current		I_{EBO}			-20	nA	V_{EBO}=-4V
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$		-0.12 -0.25	-0.25 -0.55	V V	I_C=-10mA,I_B= -0.25mA I_C=-50mA, I_B =-1.25mA
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	-0.60 -0.68	-0.70 -0.80	-0.85 -1.05	V V	I_C =-10mA, I_B=-0.25mA I_C =-50mA, I_B=-1.25mA
Base - Emitter Voltage		V_{BE}	-0.6	-0.55 -0.65 -0.72	-0.75	V V V	I_C=-10μA, V_{CE}=-5V I_C=-2mA, V_{CE}=-5V I_C=-50mA, V_{CE} =-1V
Static Forward Current Transfer Ratio	BCW61A	h_{FE}	120 60	140 170	220		I_C=-10μA, V_{CE} =-5V I_C=-2mA, V_{CE} =-5V I_C=-50mA, V_{CE} =-1V
	BCW61B		30 180 80	200 250	310		I_C=-10μA, V_{CE} =-5V I_C=-2mA, V_{CE} =-5V I_C=-50mA, V_{CE} =-1V
	BCW61C		40 250 100	270 350	460		I_C=-10μA, V_{CE} =-5V I_C=-2mA, V_{CE} =-5V I_C=-50mA, V_{CE} =-1V
	BCW61D		100 380 110	340 500	630		I_C=-10μA, V_{CE} =-5V I_C=-2mA, V_{CE} =-5V I_C=-50mA, V_{CE} =-1V
Transition Frequency		f_T		180		MHz	I_C =10mA, V_{CE}= -5V f = 100MHz
Emitter-Base Capacitance		C_{ebo}		11		pF	V_{EBO}= -0.5V,f =1MHz
Collector-Base Capacitance		C_{cbo}			6	pF	V_{CBO}= -10V, f =1MHz
Noise Figure		N		2	6	dB	I_C =- 0.2mA, V_{CE} =- 5V R_G=2KΩ, f=1KHz Δf=200Hz
Switching times: Delay Time Rise Time Turn-on Time Storage Time Fall Time Turn-Off Time		 t_d t_r t_{on} t_s t_f t_{off}		 35 50 85 400 80 480	 150 800	 ns ns ns ns ns ns	 $-I_C$: $-I_{B1}$: I_{B2} =10:1:1mA R_1=R_2=5KΩ V_{BB}=-3.6V, R_L=990Ω

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle
Spice parameter data is available upon request for this device

SOT23 PNP SILICON PLAN
SMALL SIGNAL TRANSIST

ISSUE 2 – FEBRUARY 95

PARTMARKING DETAIL –

BCW61A	– BA	BCW61AI
BCW61B	– BB	BCW61BI
BCW61C	– BC	BCW61CI
BCW61D	– BD	BCW61DI

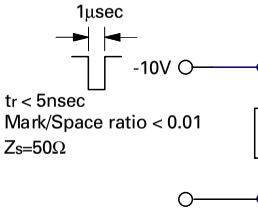
COMPLEMENTARY TYPE – BCW60

ABSOLUTE MAXIMUM RATINGS

PARAMETER
Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Base Current
Power Dissipation at T_{amb}=25°C
Operating and Storage Temperature Rang

FOUR TERMINAL NETWORK DAT

	h_{FE} Group A			h_{FE} Grou	
	Min.	Typ.	Max.	Min.	Typ.
h_{11e}	1.6	2.7	4.5	2.5	3.6
h_{12e}		1.5			2
h_{21e}		200			260
h_{22e}		18	30		24



ITCHING CIRCUIT

BCW61

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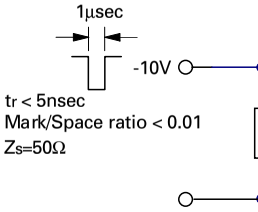

ITCHING CIRCUIT

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- Diodes Incorporated Information

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