

PNP General Purpose Amplifier

BCW61

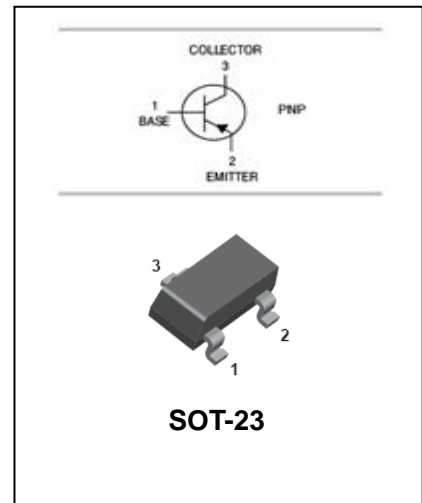
FEATURES

- Low current(max.100mA).
- Low voltage(max.32v).



APPLICATIONS

- This device is designed for general purpose amplifier and switching applications.



ORDERING INFORMATION

Type No.	Marking	Package Code
BCW61	BB/BC/BD	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-32	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-100	mA
P_D	Total Device Dissipation	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-65to+150	°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

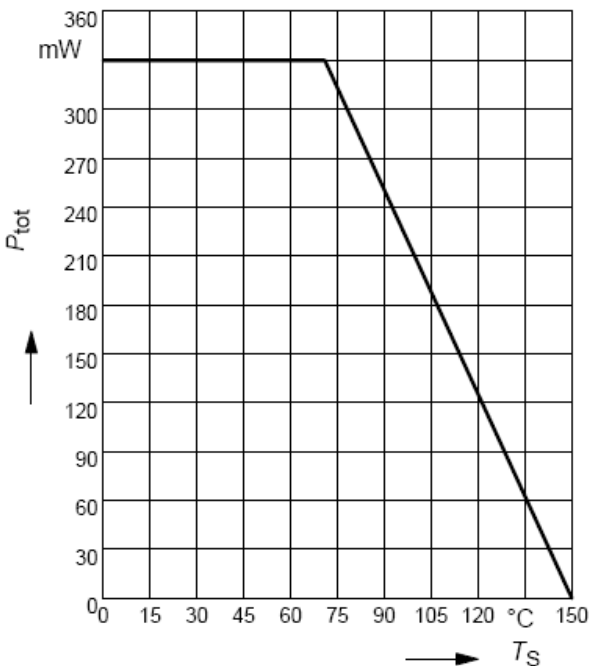
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Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A$ $I_E = 0$	-32		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -10mA$ $I_B = 0$	-32		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -1\mu A$ $I_C = 0$	-5		μV
Collector cut-off current	I_{CBO}	$V_{CB} = -32V$ $I_E = 0$		-20	nA
Emitter cut-off current	I_{EBO}	$V_{CB} = -4V$ $I_E = 0$		-20	nA
DC current gain	BCW61B BCW61C BCW61D h_{FE}	$V_{CE} = -5V$ $I_C = -2mA$	180 250 380	310 460 630	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA$ $I_B = -0.25mA$ $I_C = -50mA$ $I_B = -1.25mA$	-60 -120	-250 -550	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10mA$ $I_B = -0.25mA$ $I_C = -50mA$ $I_B = -1.25mA$	-600 -0.68	-850 -1.05	mV V
Transition frequency	f_T	$V_{CE} = -5V$ $I_C = -10mA$ $f = 100MHz$	100		pF

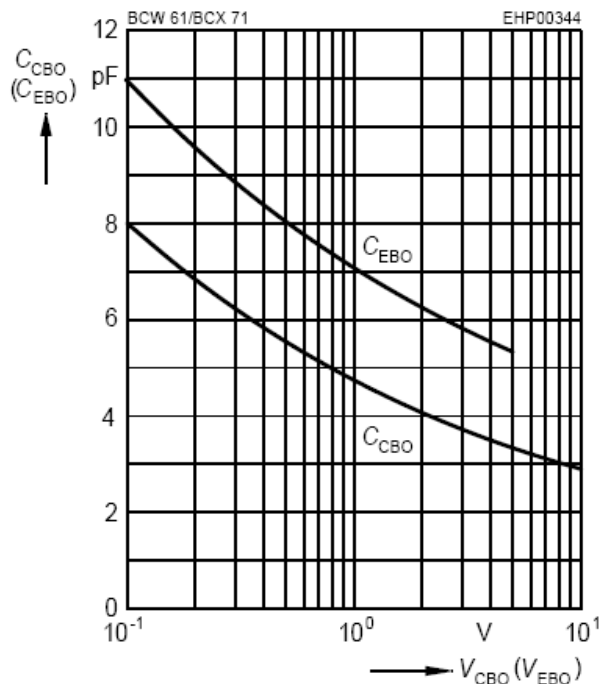
TYPICAL CHARACTERISTICS @ $T_a = 25^\circ C$ unless otherwise specified

Total power dissipation $P_{tot} = f(T_S)$



Collector-base capacitance $C_{CB} = f(V_{CBO})$

Emitter-base capacitance $C_{EB} = f(V_{EBO})$

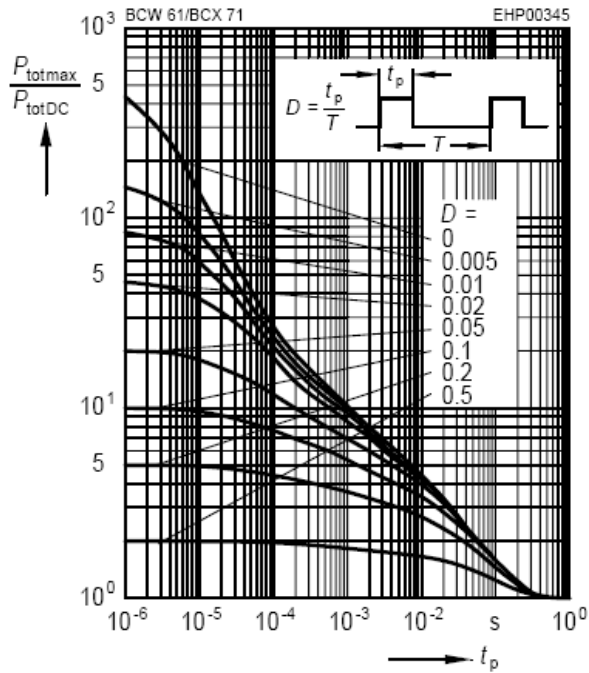


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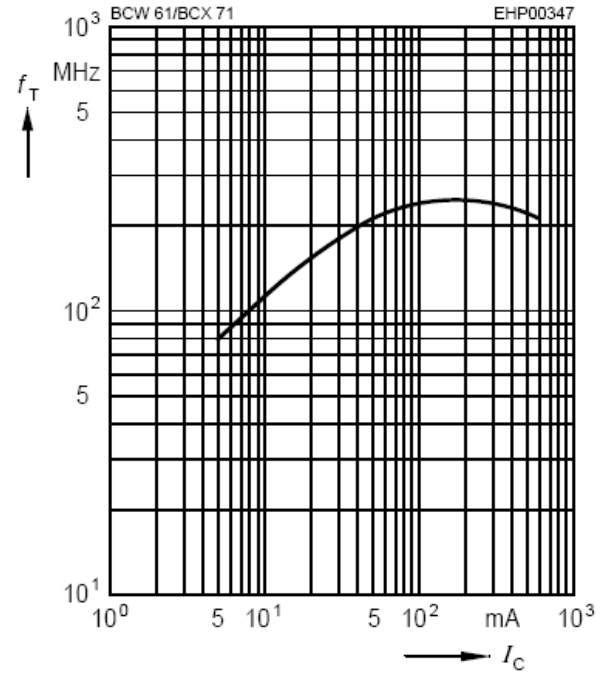
Permissible pulse load

$$P_{\text{totmax}} / P_{\text{totDC}} = f(t_p)$$



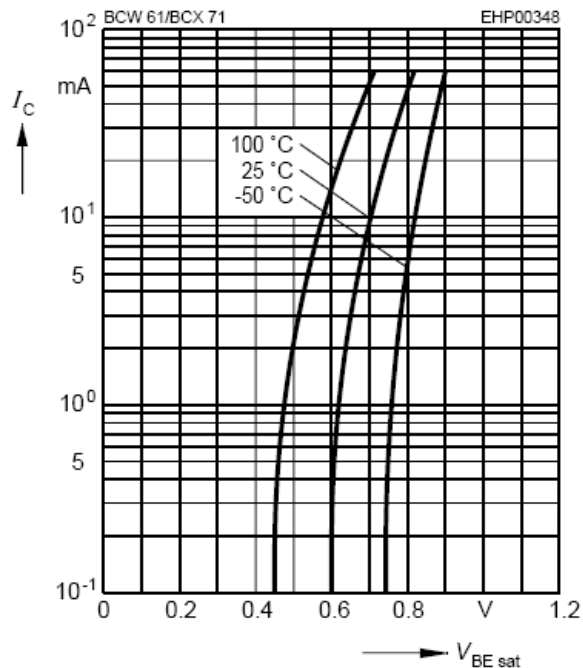
Transition frequency $f_T = f(I_C)$

$$V_{CE} = 5V$$



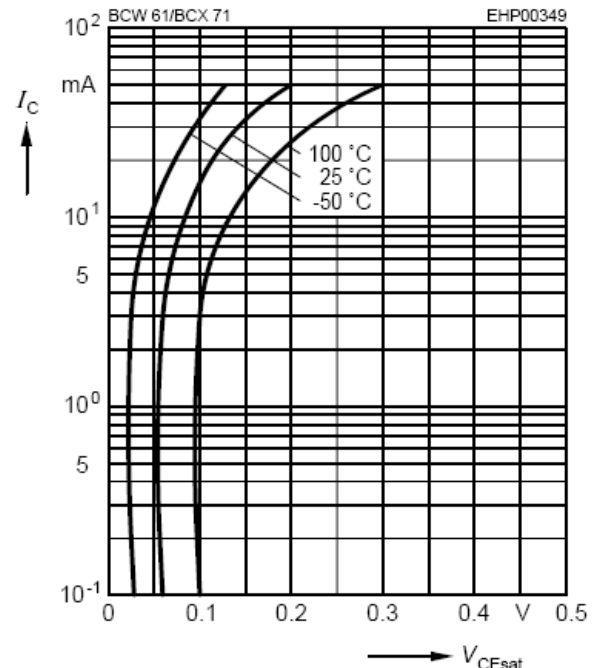
Base-emitter saturation voltage

$$I_C = f(V_{BE\text{sat}}), h_{FE} = 40$$



Collector-emitter saturation voltage

$$I_C = f(V_{CE\text{sat}}), h_{FE} = 40$$



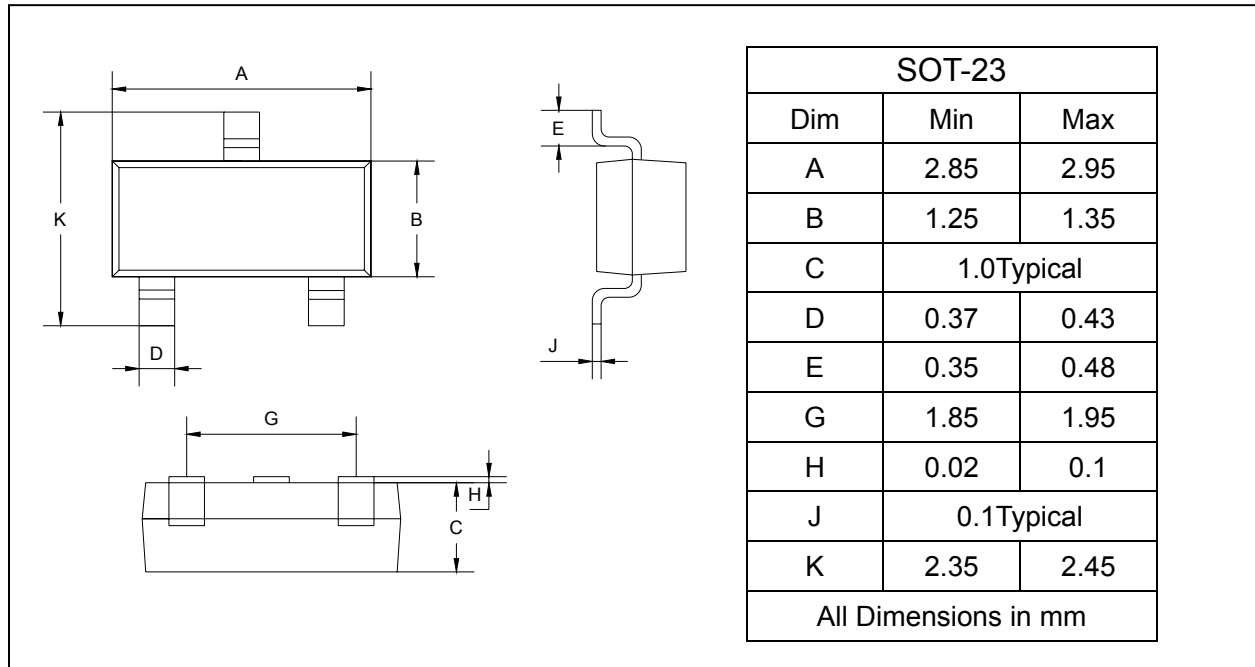
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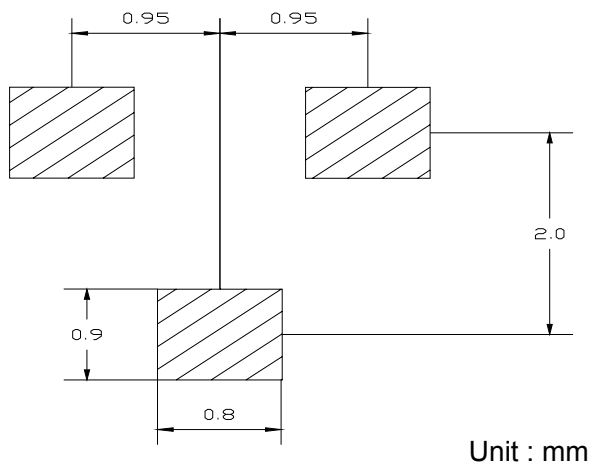
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BCW61	SOT-23	3000/Tape&Reel