



## PNP General Purpose Amplifier

## BCW30

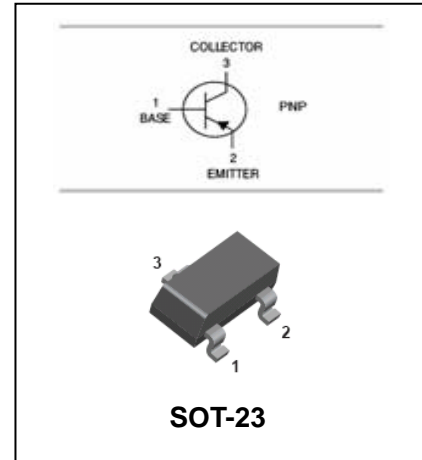
### FEATURES

- Low current.
- Low voltage.



### APPLICATIONS

- General purpose switching and amplification .
- NPN complements:BCW32.



### ORDERING INFORMATION

Type No.	Marking	Package Code
BCW30	C2X	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	300	mW
$T_j, T_{stg}$	Junction and Storage Temperature	-65 to +150	°C



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**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -10\mu A, I_E = 0$	-32			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -2mA, I_B = 0$	-32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -32V, I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$			-0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -5V, I_C = -10\mu A$ $V_{CE} = -5V, I_C = -2mA$	215	150	500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -0.5mA$ $I_C = -50mA, I_B = -2.5mA$		-0.08 -0.15	-0.3	V
Base-emitter on voltage	$V_{BE(on)}$	$I_C = -2mA, V_{CE} = -5V$	-0.6		-0.7	V
Collector capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5		pF
Transition frequency	$f_T$	$I_C = -10mA, V_{CE} = -5V,$ $f = 100MHz$	100			MHz
Noise figure	F	$I_C = -200\mu A, V_{CE} = -5V, R_S = 2k\Omega,$ $f = 1kHz, B = 200Hz$			10	dB

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

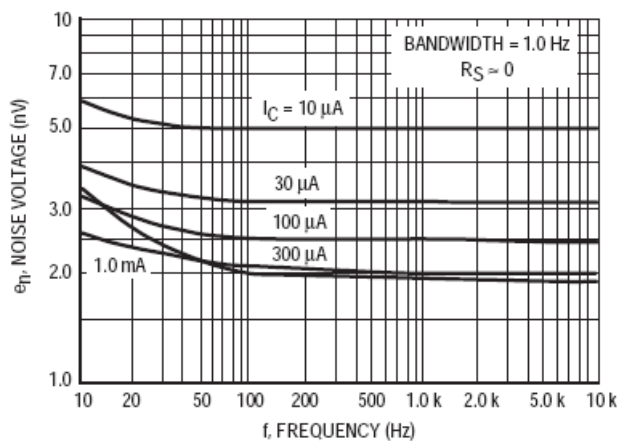


Figure 1. Noise Voltage

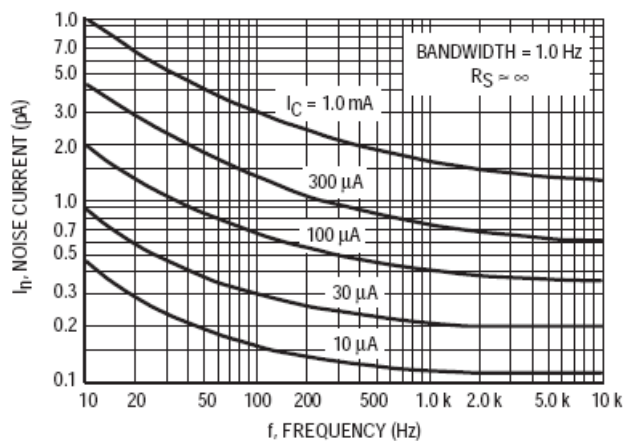


Figure 2. Noise Current



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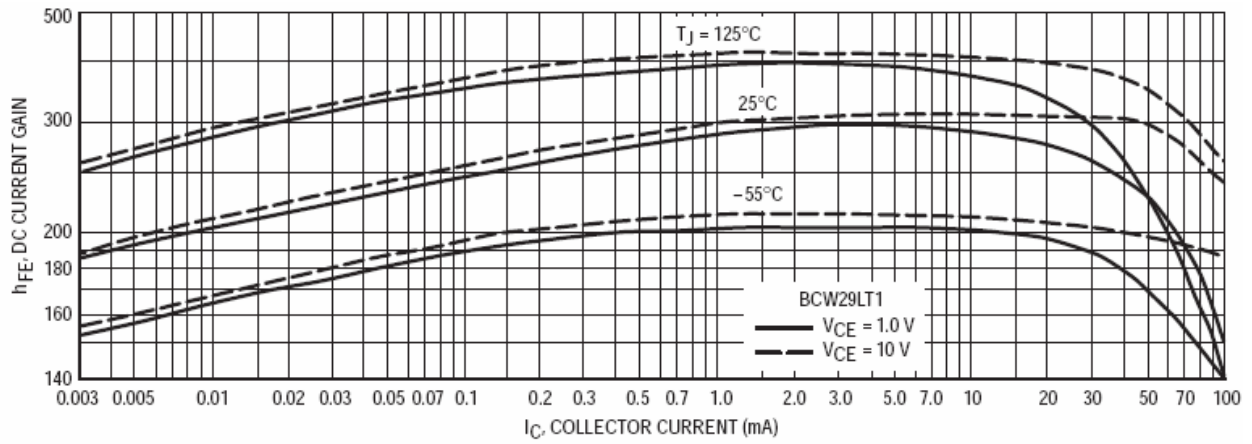


Figure 3. DC Current Gain

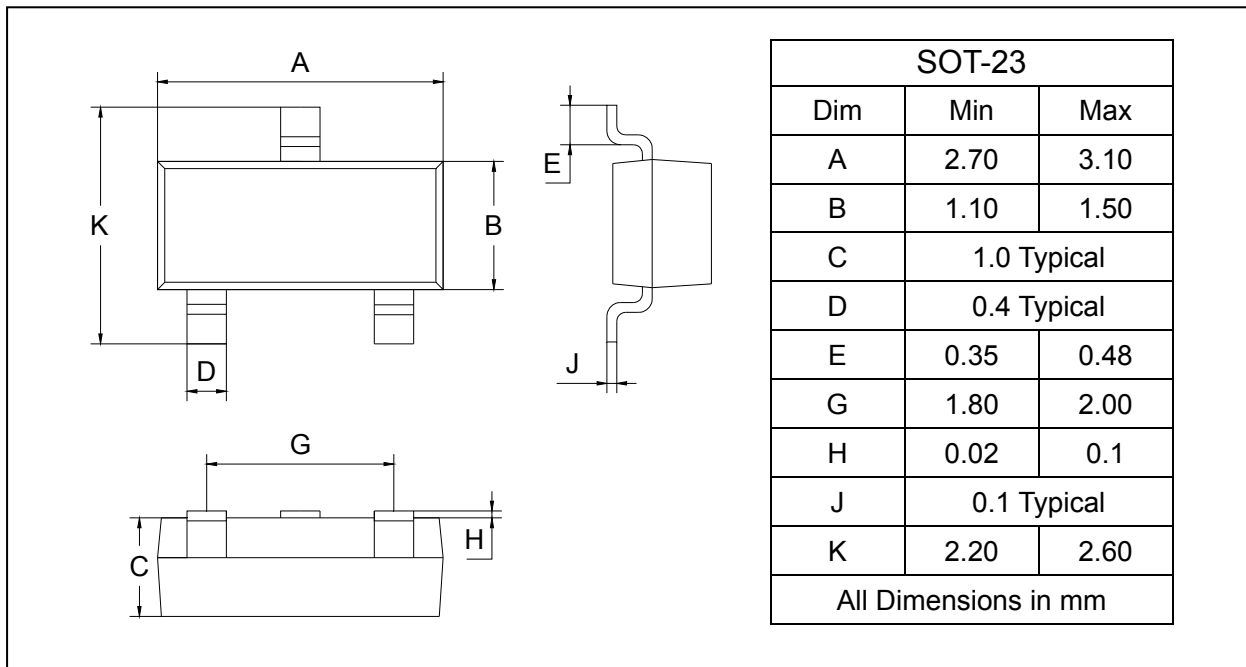
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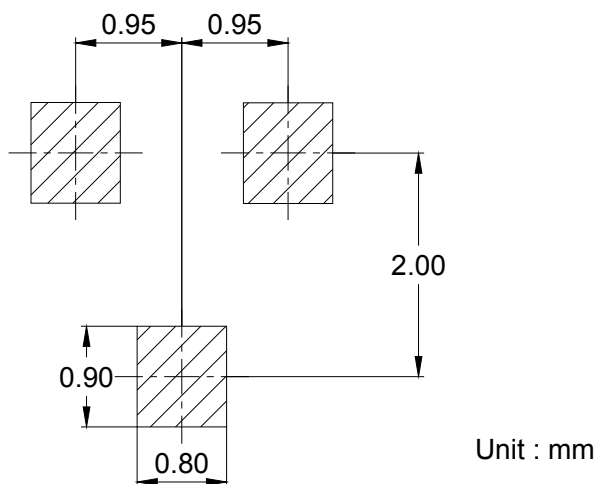
## PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

Device	Package	Shipping
BCW30	SOT-23	3000/Tape&Reel