

FEATURES

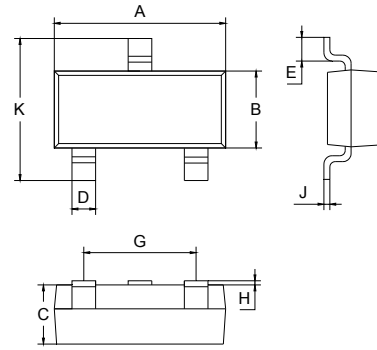
- Low current.
- Low voltage.

APPLICATIONS

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

ORDERING INFORMATION

Type No.	Marking	Package Code
BCW30	C2X	SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

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

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 =-10μA 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 =-10μA I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-32V I _E =0			-0.1	μ A
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	μ A
DC current gain	h _{FE}	V _{CE} =-5V I _C =-10μA 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 =-200μA, V _{CE} =-5V, R _S =2kΩ, f=1kHz, B=200Hz			10	dB



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

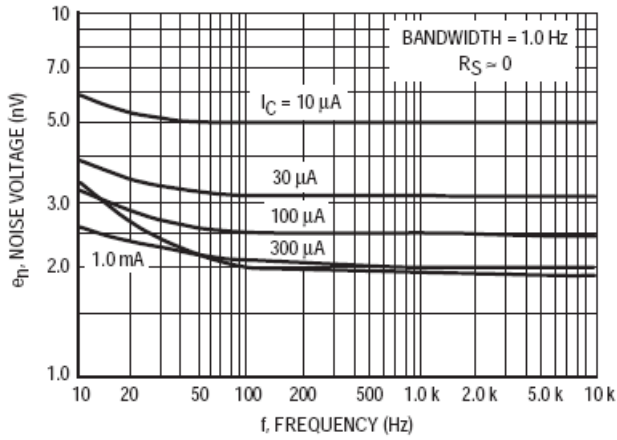


Figure 1. Noise Voltage

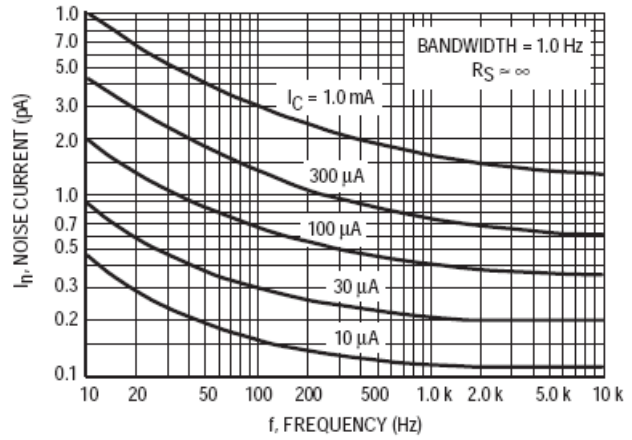


Figure 2. Noise Current

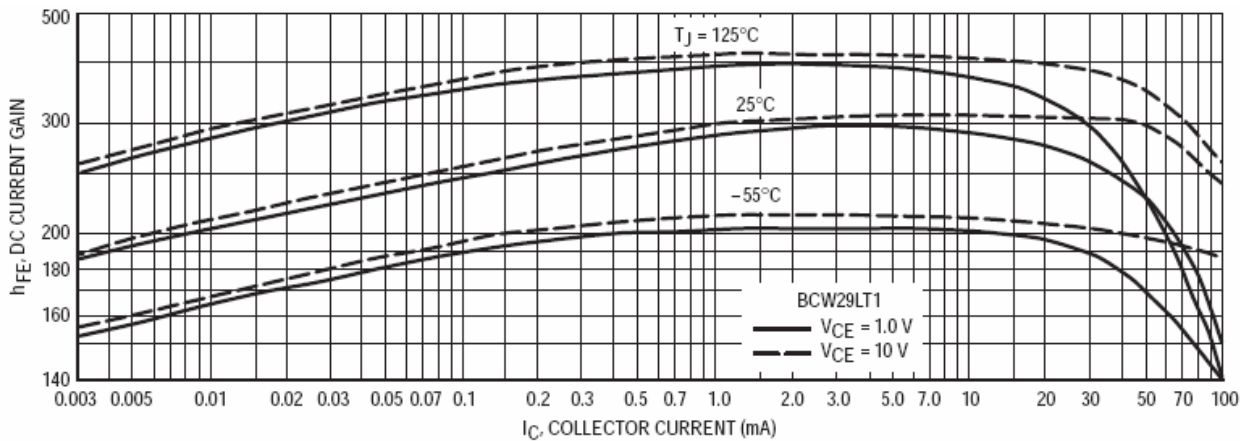


Figure 3. DC Current Gain

Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT-23	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220