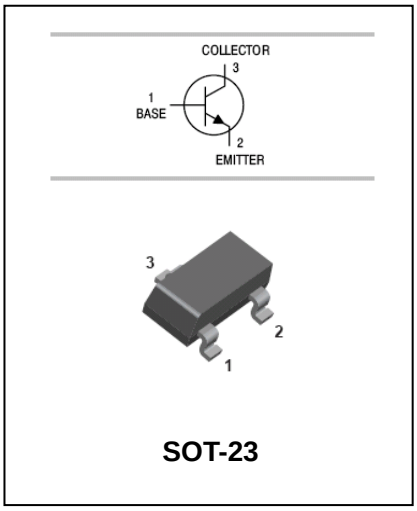
NPN General Purpose Amplifier BCW60

FEATURES

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

Lead-free



SOT-23

APPLICATIONS

- General purpose medium power amplifier.
- Switching appilication.

ORDERING INFORMATION

Type No.	Marking	Package Code
BCW60B/C/D	AB/AC/AD	SOT-23

MAXIMUM RATING @ Ta=25℃ 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_C	Collector Dissipation	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-65to+150	℃

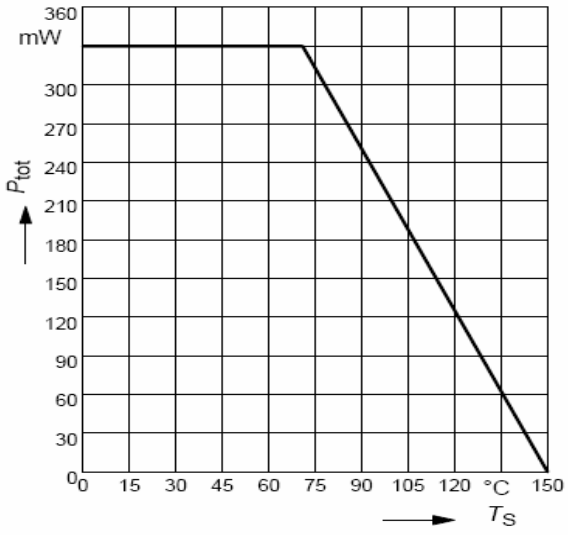
NPN General Purpose Amplifier BCW60

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

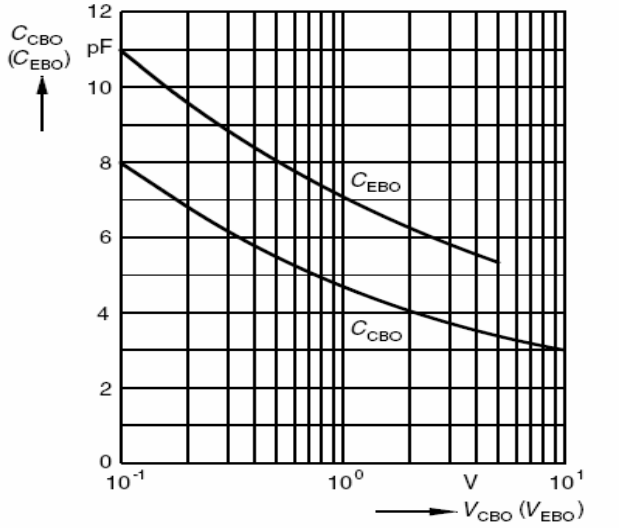
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=10μA I_E=0	32		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA I_B=0	32		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1μA I_C=0	5		V
Collector cut-off current	I_{CBO}	V_{CB}=32V I_E=0		20	nA
Emitter cut-off current	I_{EBO}	V_{EB}=4V I_C=0		20	nA
DC current gain BCW60B BCW60C BCW60D	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		0.35 0.55	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA I_B=0.25mA I_C=50mA I_B=1.25mA		0.85 1.05	V
Transition frequency	f_T	V_{CE}=5V I_C=10mA f=100MHz	100	250	MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

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



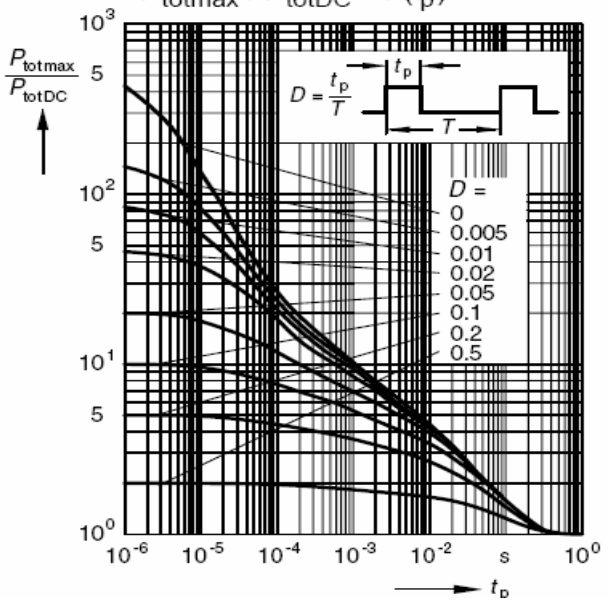
Collector-base capacitance $C_{CB} = f(V_{CBO})$
Emitter-base capacitance $C_{EB} = f(V_{EBO})$



NPN General Purpose Amplifier BCW60

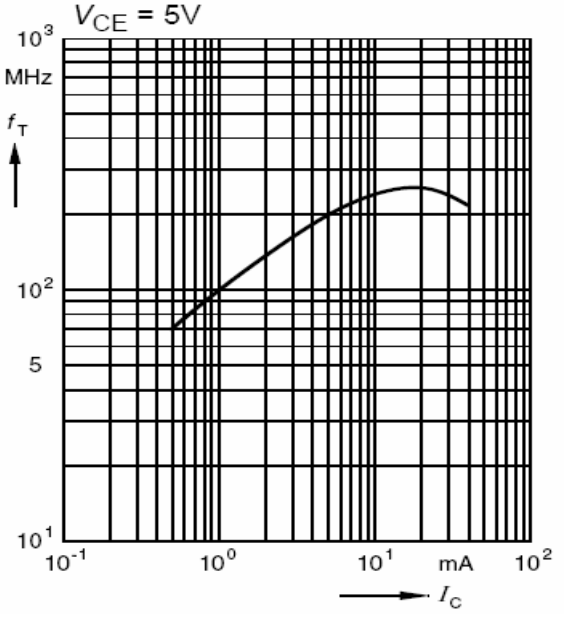
Permissible pulse load

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



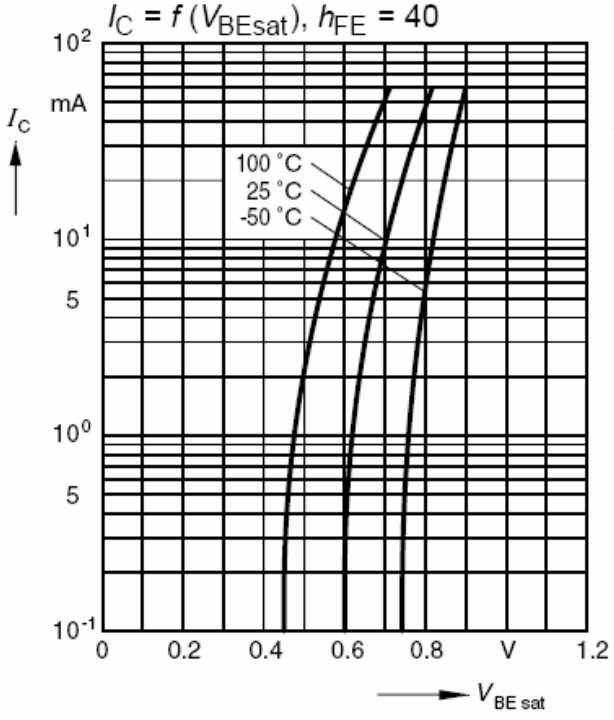
Transition frequency $f_T = f(I_C)$

V_{CE} = 5V



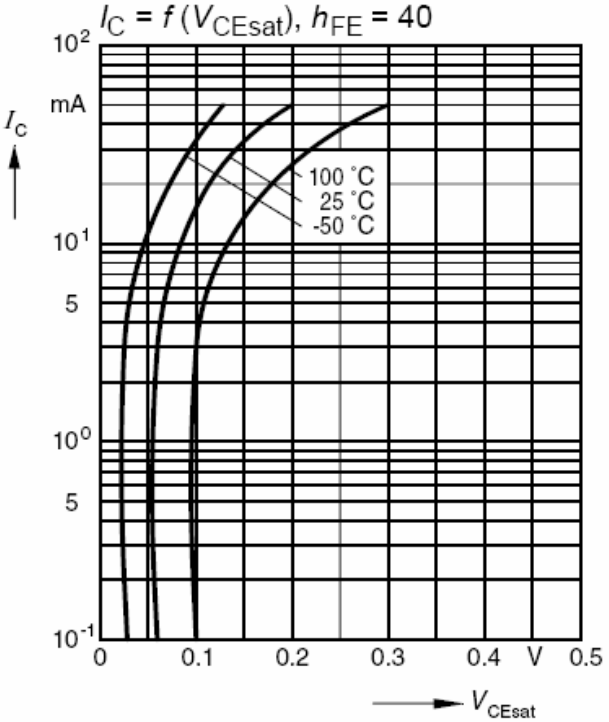
Base-emitter saturation voltage

$I_C = f(V_{BEsat})$, h_{FE} = 40



Collector-emitter saturation voltage

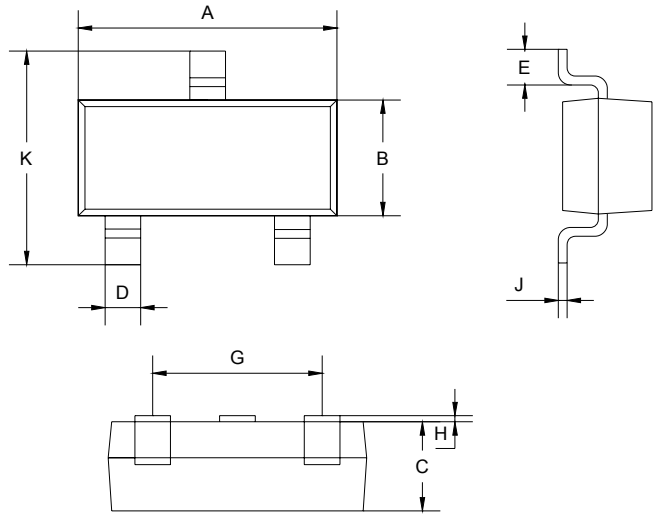
$I_C = f(V_{CEsat})$, h_{FE} = 40



NPN General Purpose Amplifier BCW60

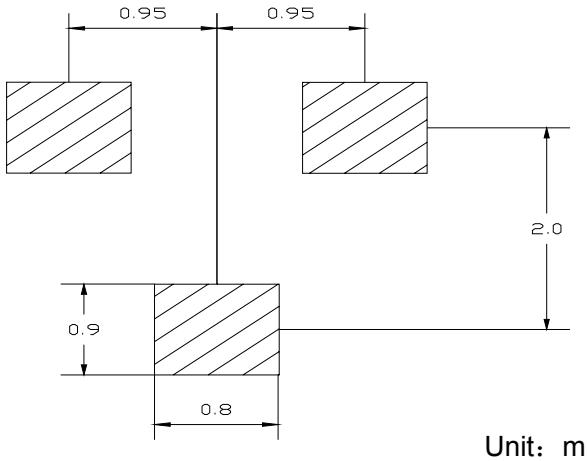
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit：mm

PACKAGE INFORMATION

Device	Package	Shipping
BCW60	SOT-23	3000/Tape&Reel