

FEATURES

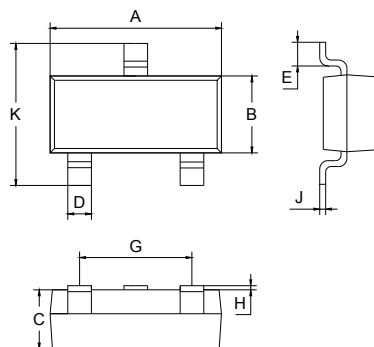
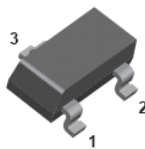
- For general AF applications.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary types:BCW65,BCW66(NPN).

APPLICATIONS

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

ORDERING INFORMATION

Type No.	Marking	Package Code
BCW67A/B/C	DA/DB/DC	SOT-23
BCW68F/G/H	DF/DG/DH	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

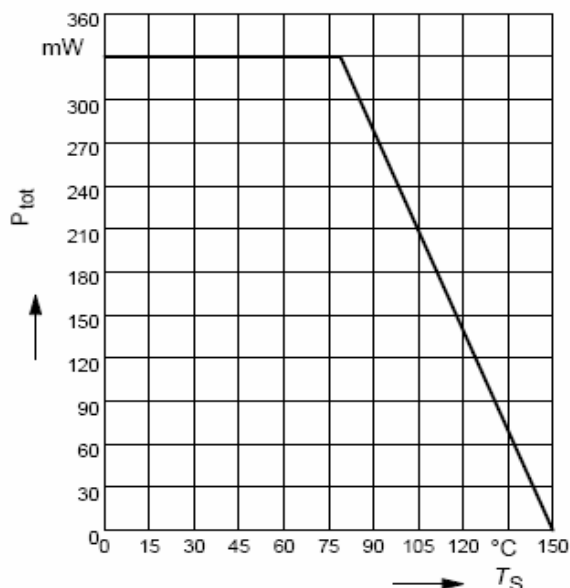
Symbol	Parameter	BCW67	BCW68	Unit
V_{CBO}	Collector-Base Voltage	-45	-60	V
V_{CEO}	Collector-Emitter Voltage	-32	-45	V
V_{EBO}	Emitter-Base Voltage	-5	-5	V
I_{CM}	Peak collector current	-1		A
I_C	Collector Current -Continuous	-800		mA
P_D	Total Device Dissipation	330		mW
R_{thJS}	Junction thermal resistance	215		°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150		°C

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

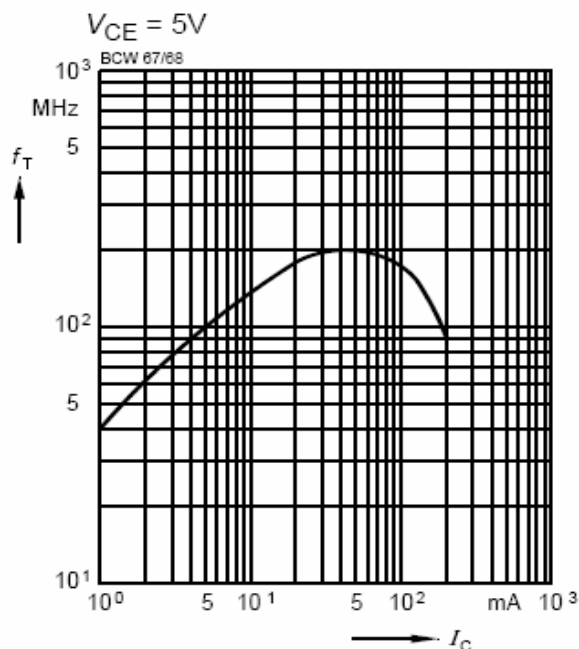
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$ BCW67 BCW68	-45 -60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$ BCW67 BCW68	-32 -45			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-32V, I_E=0$ $V_{CB}=-45V, I_E=0$ BCW67 BCW68			-20 -20	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-20	nA
DC current gain	A/F B/G C/H h_{FE}	$V_{CE}=-10V, I_C=-0.1mA$	35 50 80			
DC current gain	A/F B/G C/H h_{FE}	$V_{CE}=-1V, I_C=-10mA$	75 120 180			
DC current gain	A/F B/G C/H h_{FE}	$V_{CE}=-1V, I_C=-100mA$	100 160 250	160 250 350	250 400 630	
DC current gain	A/F B/G C/H h_{FE}	$V_{CE}=-2V, I_C=-500mA$	35 60 100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100mA, I_B=-10mA$ $I_C=-500mA, I_B=-50mA$			-0.3 -0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-100mA, I_B=-10mA$ $I_C=-500mA, I_B=-50mA$			-1.25 -2	V
Transition frequency	f_T	$V_{CE}=-5V, I_C=-50mA$ $f=20MHz$		200		MHz

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

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

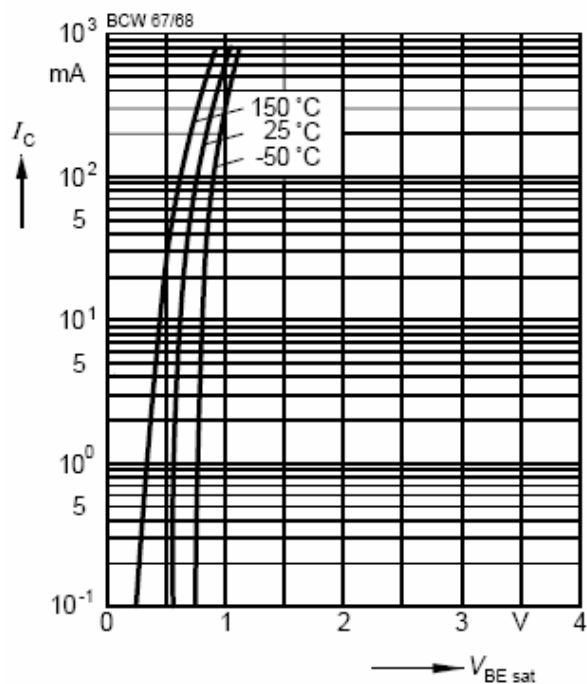


Transition frequency $f_T = f(I_C)$



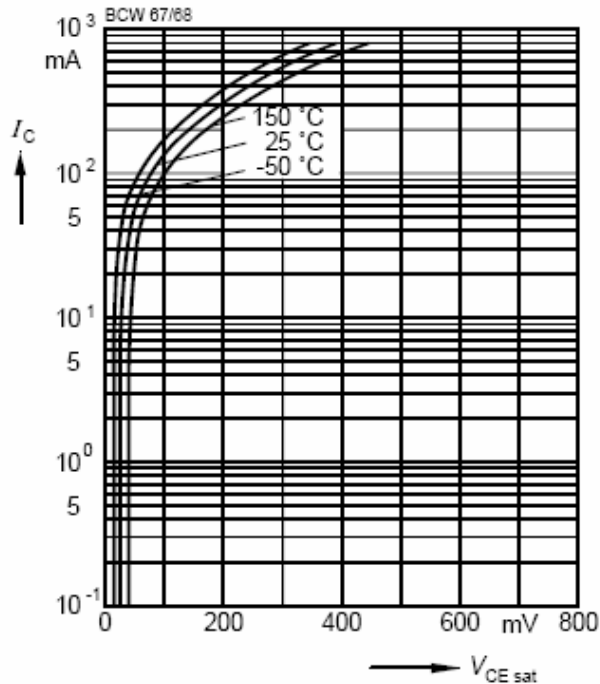
Base-emitter saturation voltage

$$I_C = f(V_{BE\text{sat}}), h_{FE} = 10$$



Collector-emitter saturation voltage

$$I_C = f(V_{CE\text{sat}}), h_{FE} = 10$$



Device	Package	Shipping
BCW67/68	SOT-23	3000/Tape&Reel