

NPN General Purpose Amplifier

BCW65/66

FEATURES

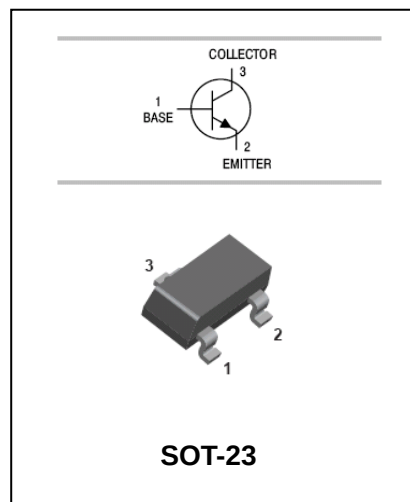
- For general AF applications.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary types:BCW67,BCW68(PNP)



Lead-free

APPLICATIONS

- General purpose medium power amplifier.
- Switching application.



ORDERING INFORMATION

Type No.	Marking	Package Code
BCW65A/B/C	EA/EB/EC	SOT-23
BCW66F/G/H	EA/EB/EC	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

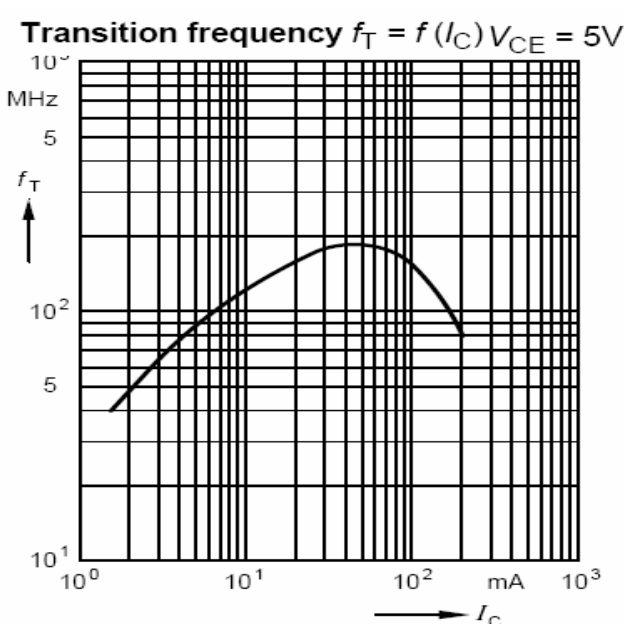
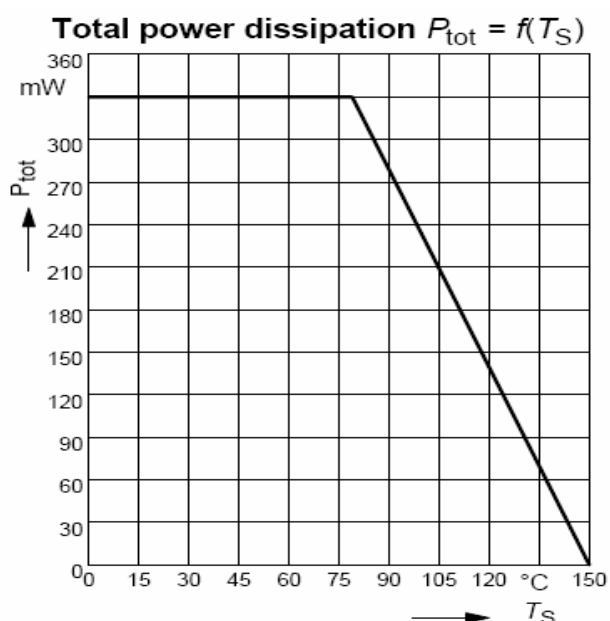
Symbol	Parameter	BCW65	BCW66	Unit
V_{CBO}	Collector-Base Voltage	32	45	V
V_{CEO}	Collector-Emitter Voltage	60	75	V
V_{EBO}	Emitter-Base Voltage	5	5	V
I_C	Collector Current -Continuous	800		mA
P_C	Collector Dissipation	330		mW
T_j, T_{stg}	Junction and Storage Temperature	-65to+150		°C

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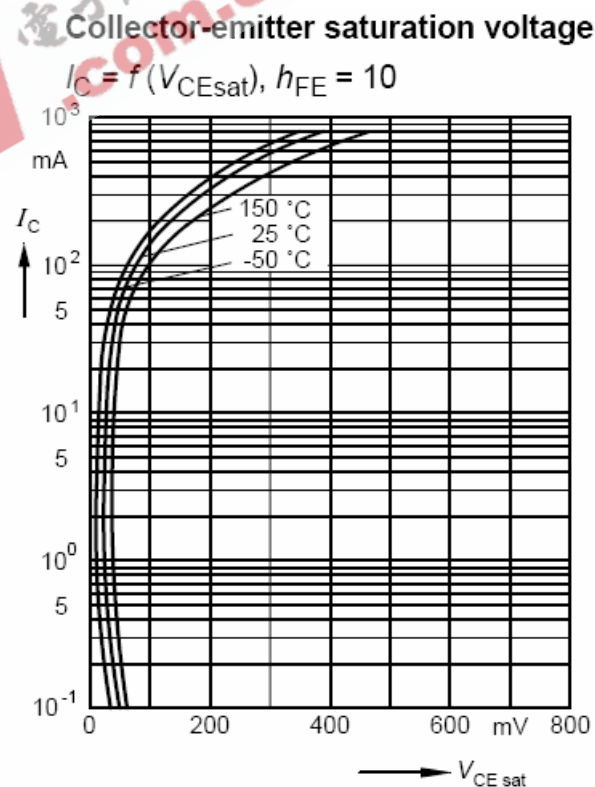
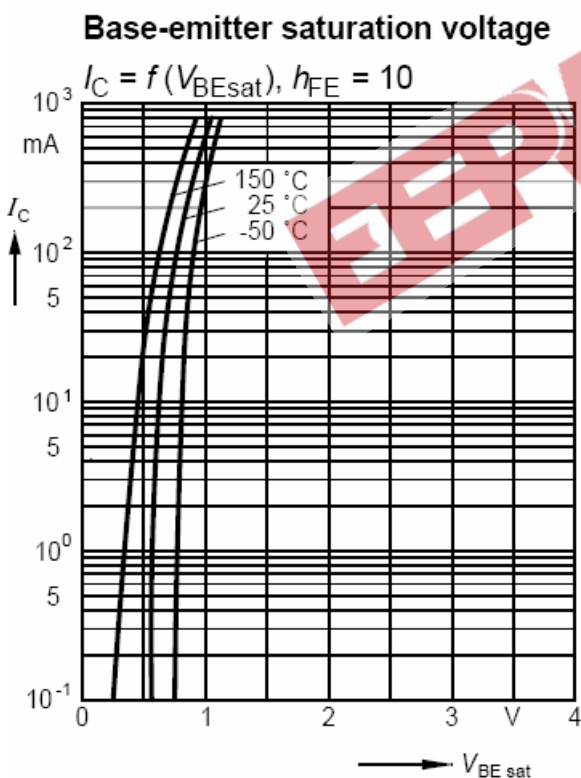
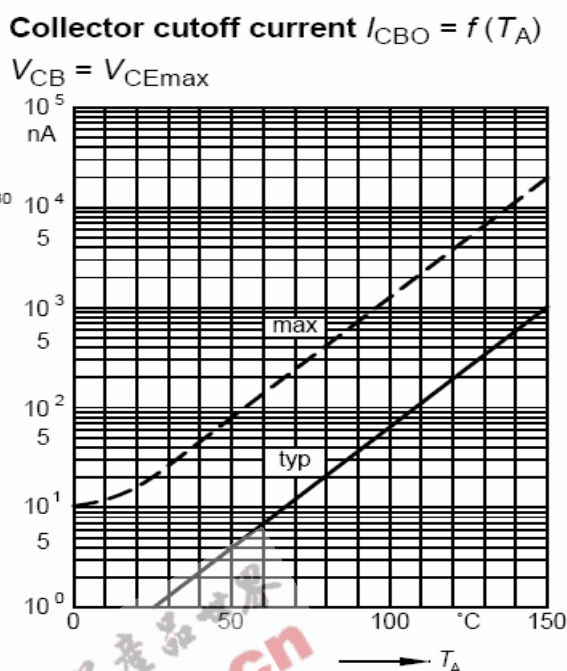
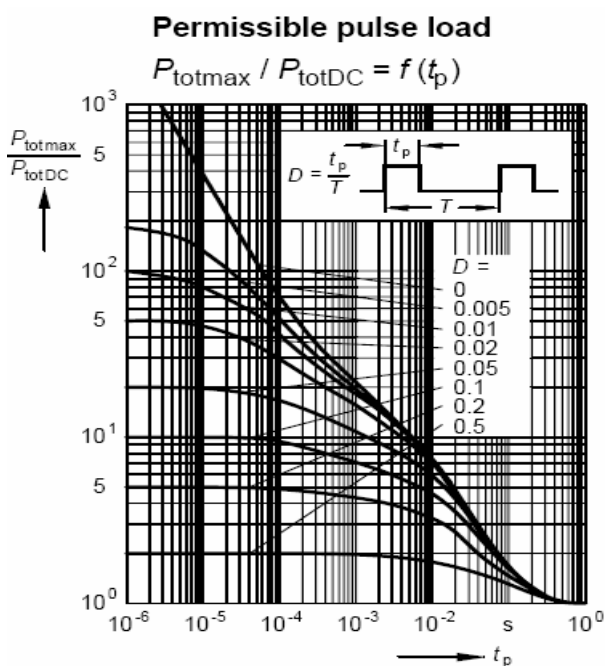
ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage BCW65 BCW66	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$ $I_E=0$	60 75		V
Collector-emitter breakdown voltage BCW65 BCW66	$V_{(BR)CEO}$	$I_C=10\text{mA}$ $I_B=0$	32 45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$ $I_C=0$	5		V
Collector cut-off current BCW65 BCW66	I_{CBO}	$V_{CB}=32\text{V}$ $I_E=0$ $V_{CB}=45\text{V}$ $I_E=0$		20 20	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$ $I_C=0$		20	nA
DC current gain A/F B/G C/H	h_{FE}	$V_{CE}=5\text{V}$ $I_C=2\text{mA}$	100 160 250	250 400 630	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$ $I_B=10\text{mA}$ $I_C=500\text{mA}$ $I_B=50\text{mA}$		0.3 0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}$ $I_B=10\text{mA}$ $I_C=500\text{mA}$ $I_B=50\text{mA}$		1.25 2	V
Transition frequency	f_T	$V_{CE}=5\text{V}$ $I_C=50\text{mA}$ $f=20\text{MHz}$	170		MHz

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

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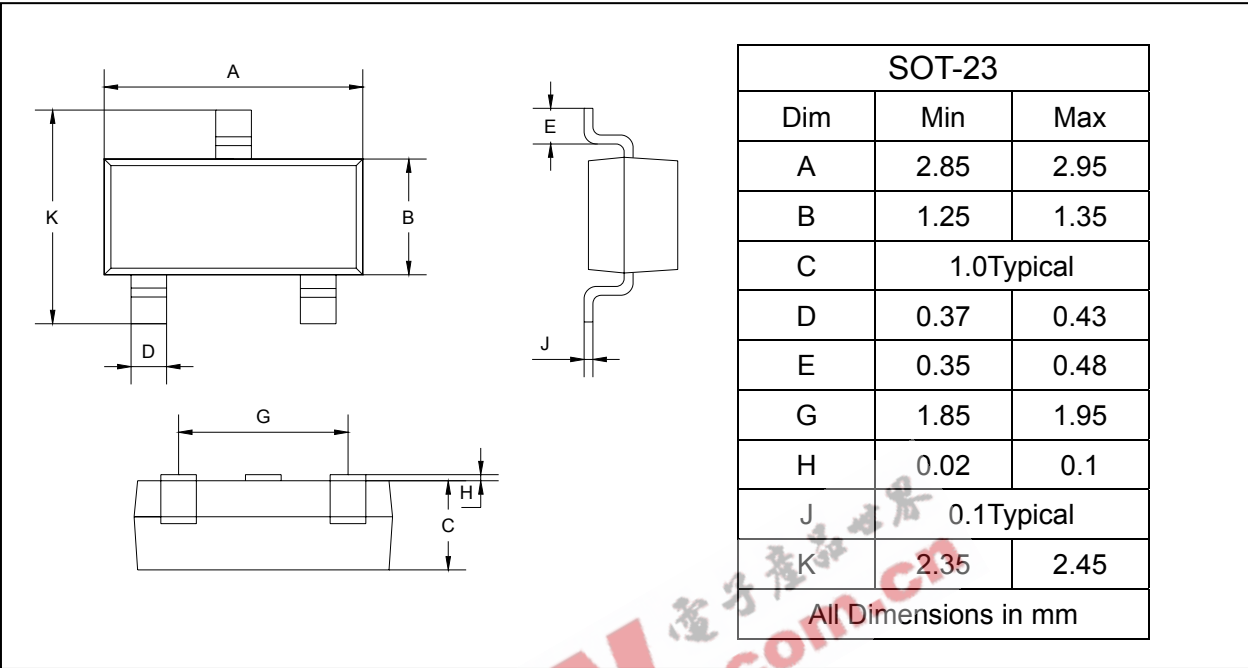
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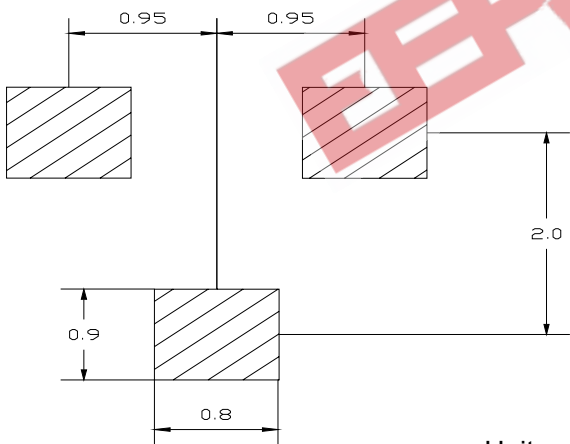
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BCW65/66	SOT-23	3000/Tape&Reel