

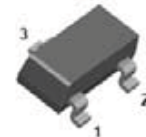
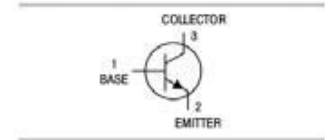
NPN General Purpose Amplifier: BCW65/BCW66

Features:

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

Applications:

- General purpose medium power amplifier
- Switching application



SOT-23

Ordering Information

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

Maximum Ratings & Characteristics: Tamb=25°C unless otherwise specified

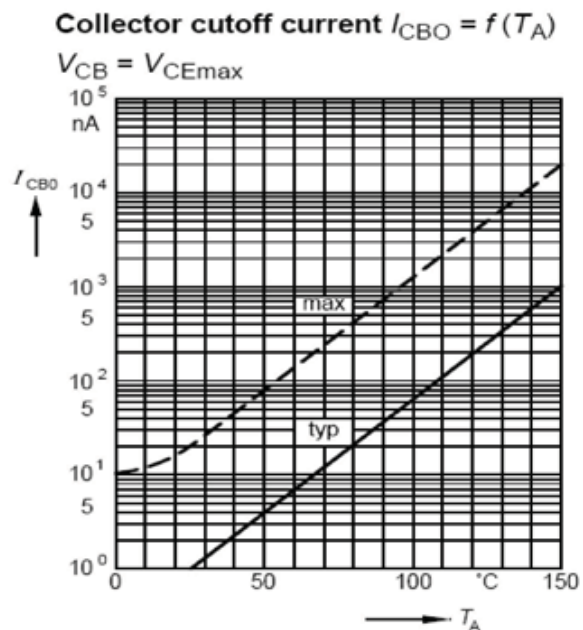
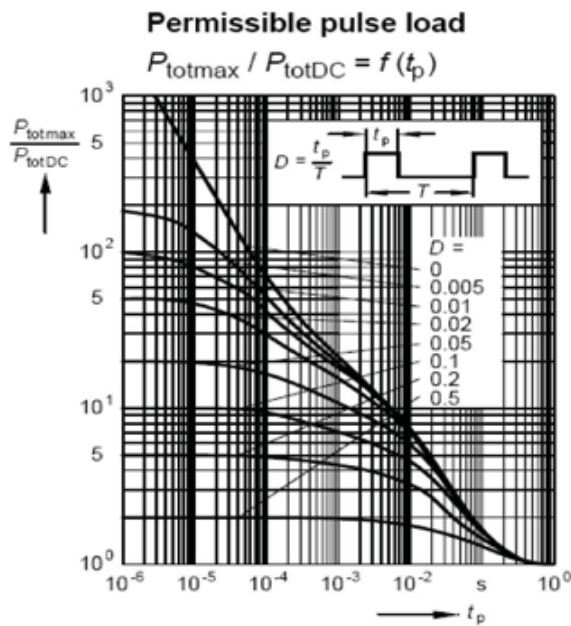
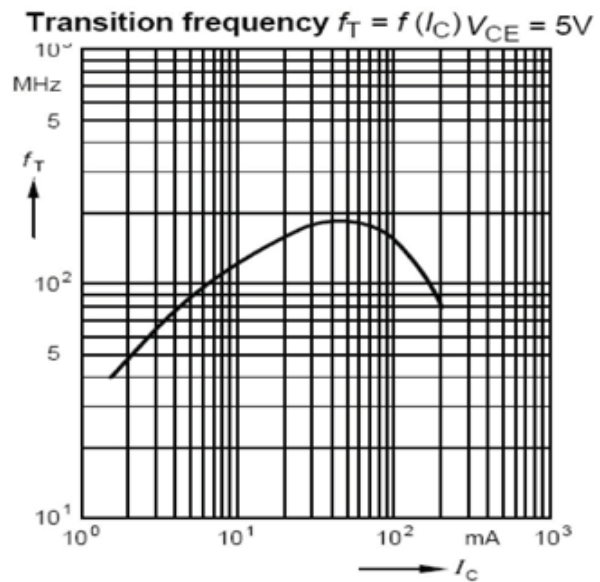
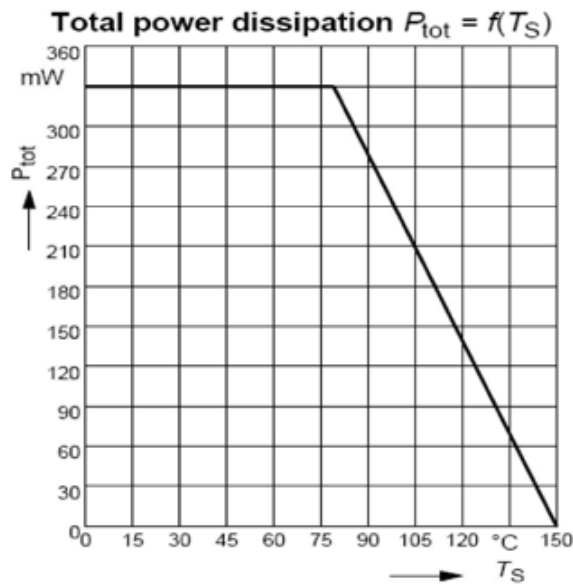
Parameter:	Symbol:	Value:	Unit:
Collector - Base Voltage - BCW65 - BCW66	V_{CBO}	32 45	V
Collector - Emitter Voltage - BCW65 - BCW66	V_{CEO}	60 75	V
Emitter - Base Voltage - BCW65 - BCW66	V_{ebo}	5 5	V
Collector Current Continuous	I_C	800	mA
Collector Dissipation	P_C	330	mW
Junction and Storage Temperature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

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Parameter:	Symbol:	Test Conditions:	Min:	Typ:	Max:	Unit:
Collector - Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$ BCW65 BCW66	60 75			V
Collector - Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$ BCW65 BCW66	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}	$V_{CB}=32V, I_E=0$ BCW65 $V_{CB}=45V, I_E=0$ BCW66			20 20	nA 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}	$V_{CE}=10V, I_C=100\mu A$	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		250 400 630	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$ $I_C=500mA, I_B=50mA$			0.3 0.7	V V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA, I_B=-10mA$ $I_C=500mA, I_B=-50mA$			1.25 2	V V
Transition Frequency	f_T	$V_{CE}=5V, I_C=50mA$ $f=20MHz$		170		MHz

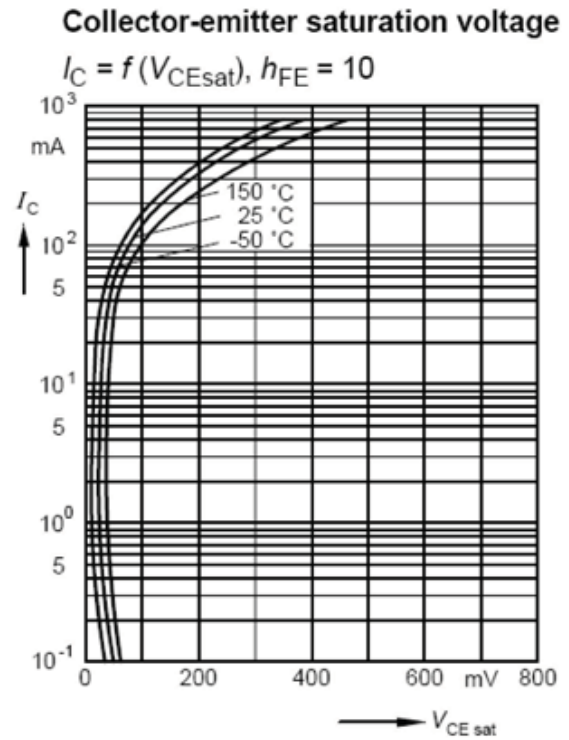
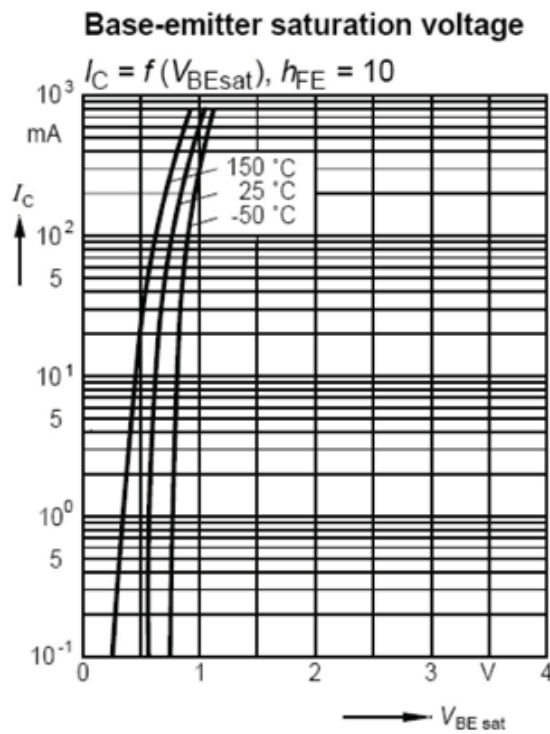
Typical Characteristics: $T_{amb}=25^{\circ}\text{C}$ unless otherwise specified

Ratings & Characteristic Curves



Typical Characteristics: Tamb=25°C unless otherwise specified

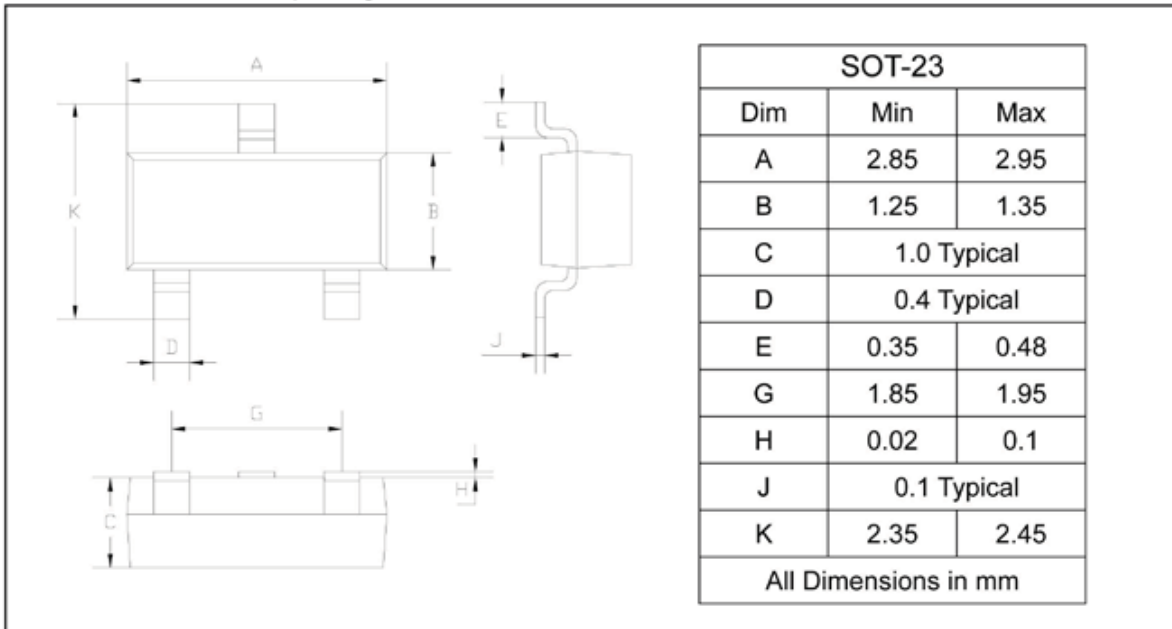
Ratings & Characteristic Curves



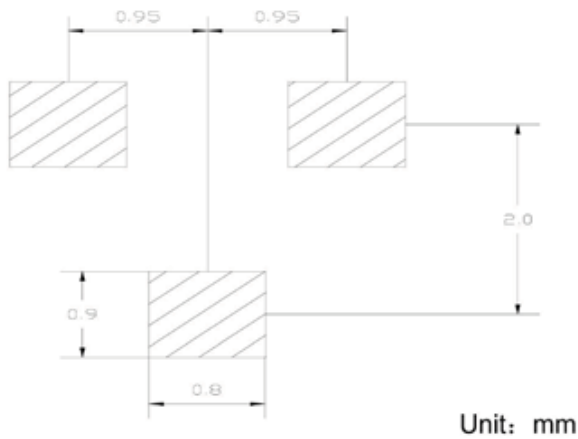
Package Outline

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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