

NPN General Purpose Amplifier

BCW60

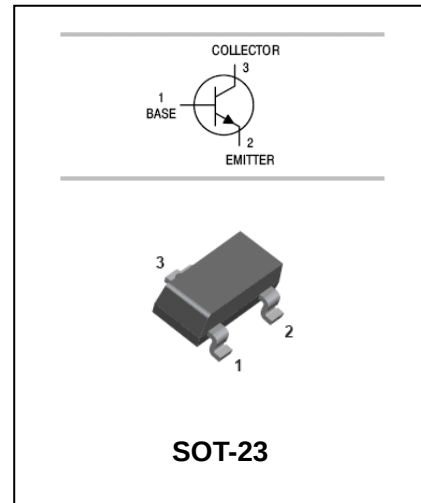
FEATURES

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



APPLICATIONS

- General purpose medium power amplifier.
- Switching application.



ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25°C unless otherwise specified

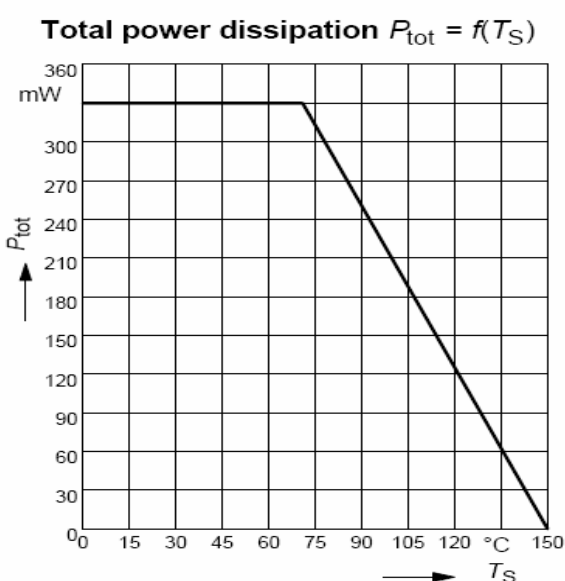
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	32	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Dissipation	250	mW
T_j, T_{stg}	Junction and Storage Temperature	-65to+150	°C

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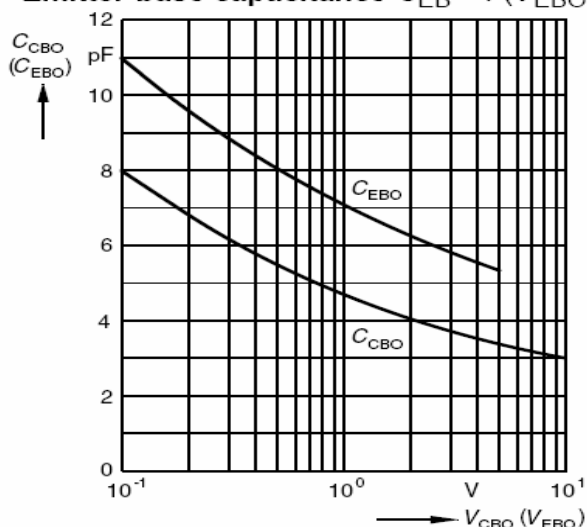
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ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}$ $I_E=0$	32		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}$ $I_B=0$	32		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\mu\text{A}$ $I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=32\text{V}$ $I_E=0$		20	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}$ $I_C=0$		20	nA
DC current gain	h_{FE}	$V_{CE}=5\text{V}$ $I_C=2\text{mA}$	180	310	
BCW60B			250	460	
BCW60C			380	630	
BCW60D					
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{mA}$ $I_B=0.25\text{mA}$ $I_C=50\text{mA}$ $I_B=1.25\text{mA}$		0.35 0.55	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10\text{mA}$ $I_B=0.25\text{mA}$ $I_C=50\text{mA}$ $I_B=1.25\text{mA}$		0.85 1.05	V
Transition frequency	f_T	$V_{CE}=5\text{V}$ $I_C=10\text{mA}$ $f=100\text{MHz}$	100	250	MHz

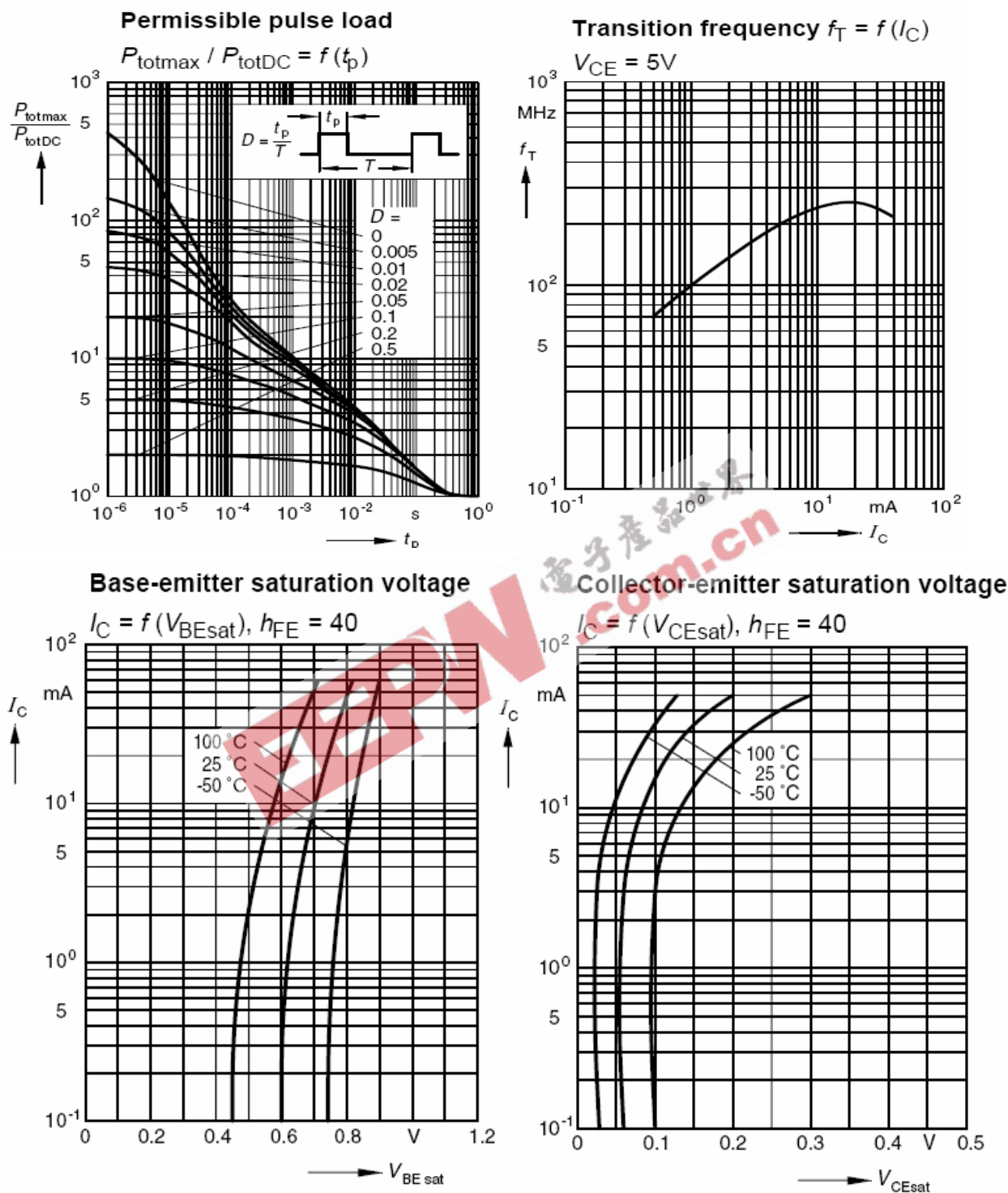
TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

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



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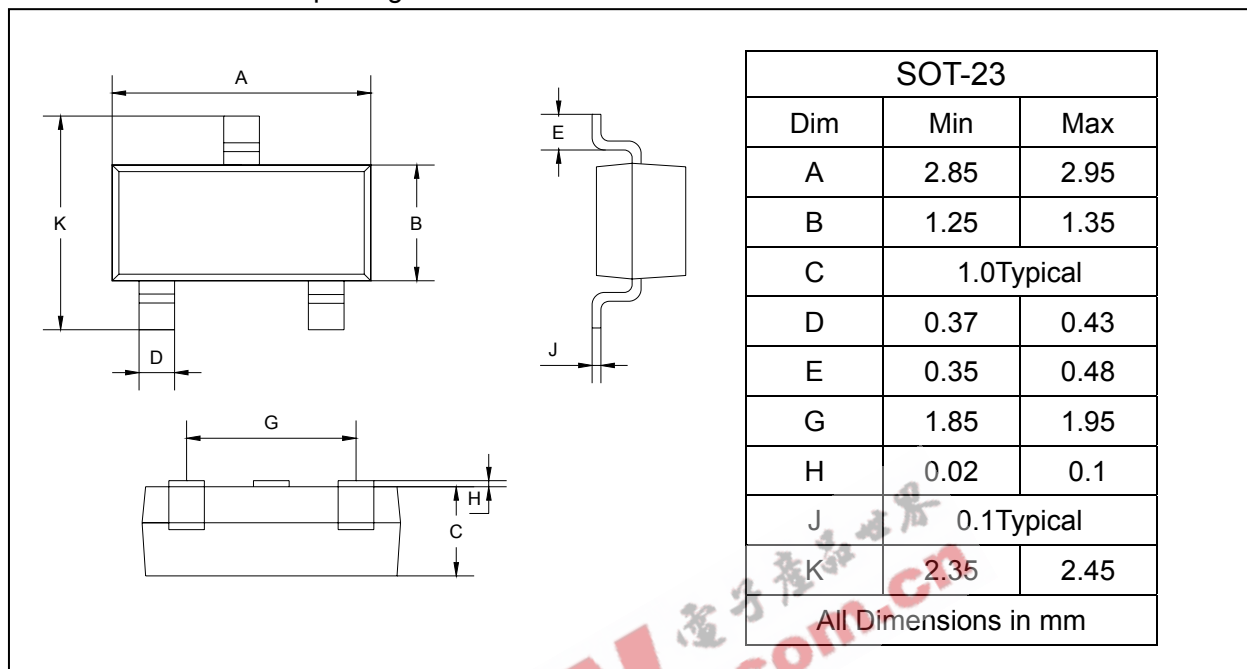
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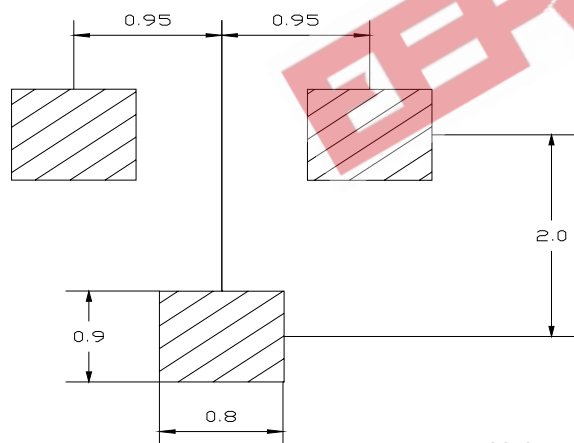
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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