

PNP General Purpose Amplifier

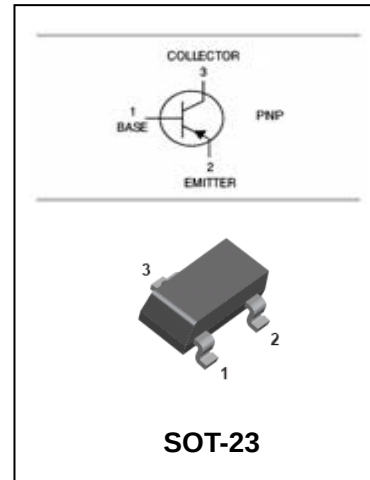
BC808-16/-25/-40

FEATURES

- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.
- Complementary types:BC818.



Lead-free



ORDERING INFORMATION

Type No.	Marking	Package Code
BC808-16	5E	SOT-23
BC808-25	5F	SOT-23
BC808-40	5G	SOT-23

MAXIMUM RATING @ Ta=25 °C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
I_{CM}	Peak collector current	-1	A
I_B	Base current	-100	mA
I_{BM}	Peak base current	-200	mA
P_D	Total Device Dissipation	330	mW
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	417	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C

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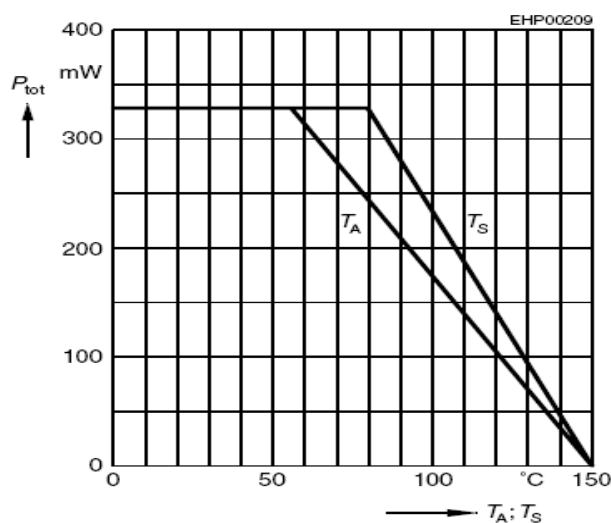
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-10\mu A$ $I_E=0$	-30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10mA$ $I_B=0$	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu A$ $I_C=0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB}=-25V$ $I_E=0$		-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{CE}=-4V$ $I_C=0$		-0.1	μA
DC current gain	h_{FE}	$V_{CE}=-1V$ $I_C=-100mA$	100	250	
			160	400	
			250	630	
DC current gain	h_{FE}	$V_{CE}=-1V$ $I_C=-300mA$	60		
			100		
			170		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500mA$ $I_B=-50mA$		-1.2	V
Output capacitance	C_{obo}	$V_{CB}=-10V, f=1.0MHz$		10	pF
Transition frequency	f_T	$V_{CE}=-5V, I_C=-50mA$ $f=100MHz$	200		MHz

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

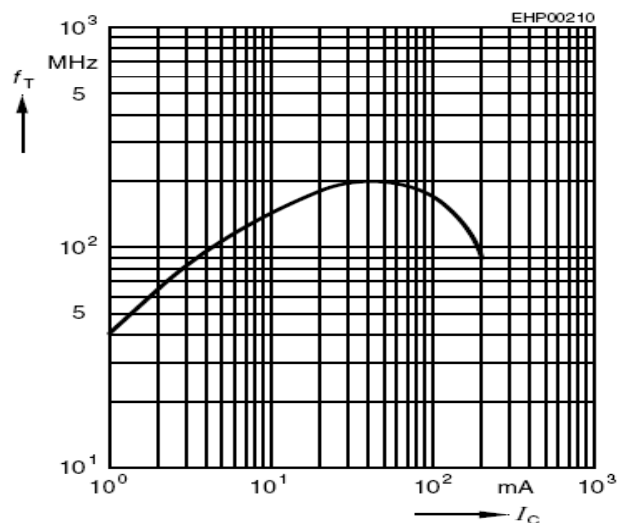
Total power dissipation $P_{tot} = f(T_A^*; T_S)$

* Package mounted on epoxy



Transition frequency $f_T = f(I_C)$

$V_{CE} = 5V$



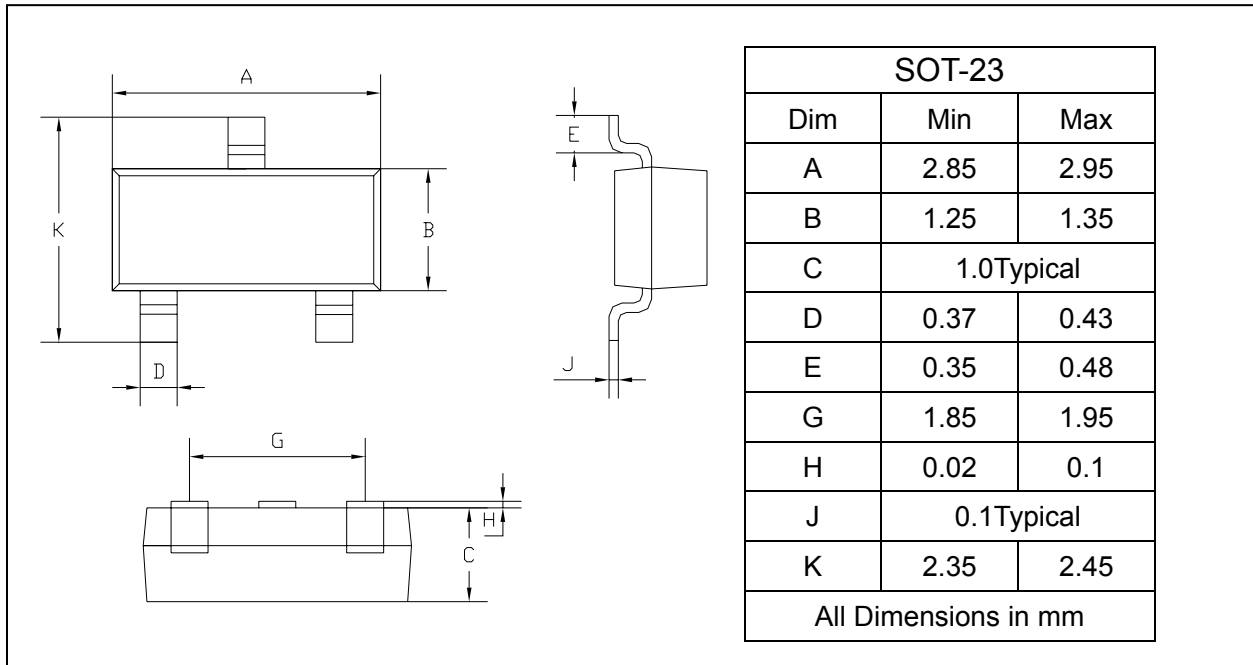
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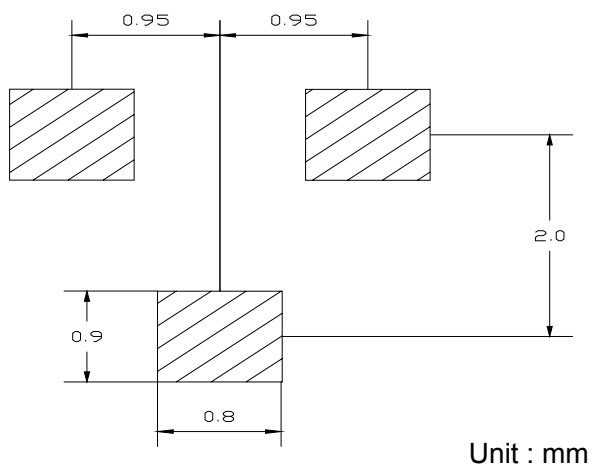
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BC808-16/-25/-40	SOT-23	3000/Tape&Reel