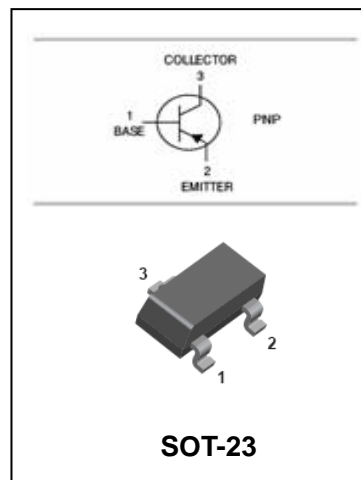


PNP General Purpose Amplifier

BC808-16/-25/-40

FEATURES

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



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 |



PNP General Purpose Amplifier

BC808-16/-25/-40

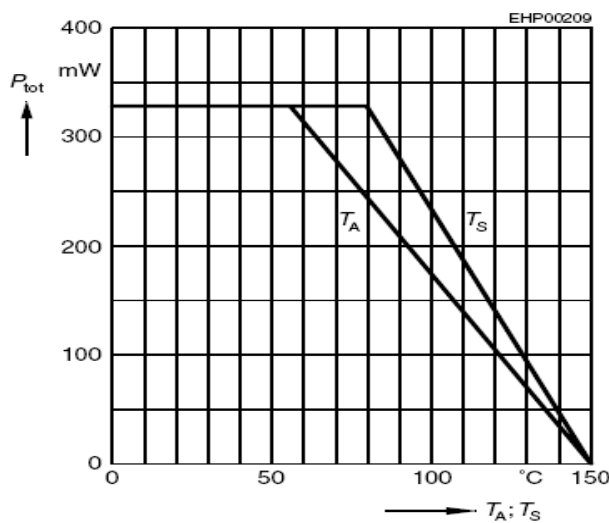
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| 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} | $V_{CE}=-1V, I_C=-100mA$ | 808-16 | 100 | 250 |
| | | | 808-25 | 160 | 400 |
| | | | 808-40 | 250 | 630 |
| DC current gain | h_{FE} | $V_{CE}=-1V, I_C=-300mA$ | 808-16 | 60 | |
| | | | 808-25 | 100 | |
| | | | 808-40 | 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

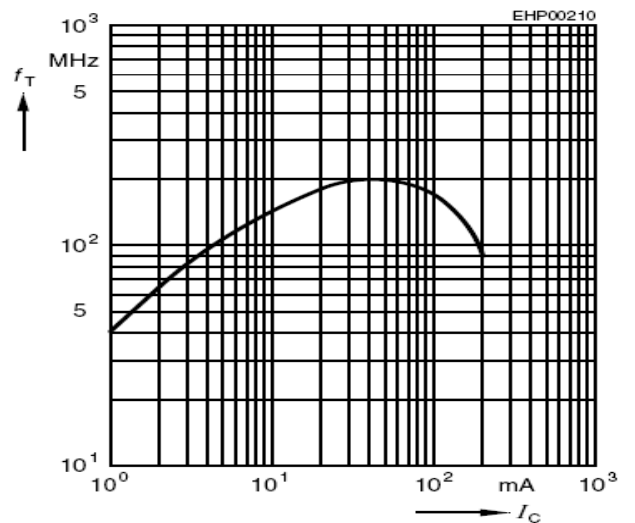
Total power dissipation $P_{tot} = f(T_A^*; T_S)$

* Package mounted on epoxy



Transition frequency $f_T = f(I_C)$

$V_{CE} = 5V$



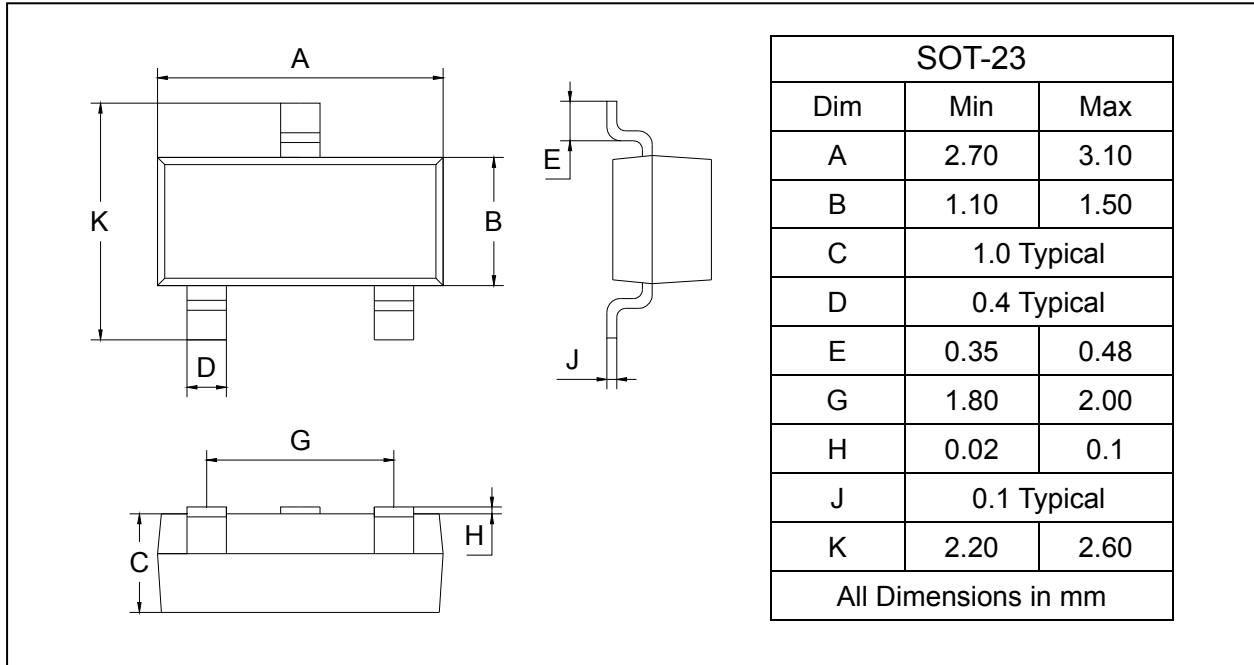
PNP General Purpose Amplifier

BC808-16/-25/-40

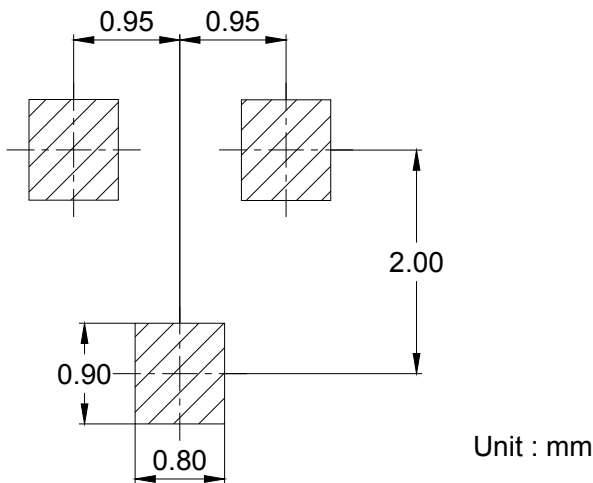
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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