

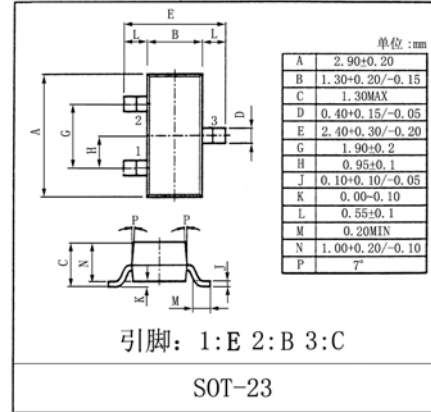
用途:用于音频放大输出,电压调节器,电源转换和继电器驱动。

Purpose: Output stage of audio amplifier, voltage regulator, DC-DC converter and relay driver.

特点:饱和压降小,  $h_{FE}$  高且线性好/Features: Low saturation voltage, excellent  $h_{FE}$  linearity and high  $h_{FE}$ .

极限参数/Absolute maximum ratings ( $T_a=25^\circ\text{C}$ )

| 参数符号<br>Symbol | 数值<br>Rating | 单位<br>Unit       |
|----------------|--------------|------------------|
| $V_{CB0}$      | -40          | V                |
| $V_{CE0}$      | -30          | V                |
| $V_{EB0}$      | -5           | V                |
| $I_C$          | -3           | A                |
| $I_{CP}$       | -7           | A                |
| $P_C$          | 0.35         | W                |
| $T_j$          | 150          | $^\circ\text{C}$ |
| $T_{stg}$      | -55~150      | $^\circ\text{C}$ |



电性能参数/Electrical characteristics ( $T_a=25^\circ\text{C}$ )

| 参数符号<br>Symbol | 测试条件<br>Test condition |                    | 数值<br>Rating    |            |            | 单位<br>Unit    |
|----------------|------------------------|--------------------|-----------------|------------|------------|---------------|
|                |                        |                    | 最小值<br>Min      | 典型值<br>Typ | 最大值<br>Max |               |
| $BV_{CB0}$     | $I_C=-100\mu\text{A}$  | $I_E=0$            | -40             |            |            | V             |
| $BV_{CE0}$     | $I_C=-1\text{mA}$      | $I_B=0$            | -30             |            |            | V             |
| $BV_{EB0}$     | $I_E=-100\mu\text{A}$  | $I_C=0$            | -5              |            |            | V             |
| $I_{CB0}$      | $V_{CB}=-30\text{V}$   | $I_E=0$            |                 |            | -1         | $\mu\text{A}$ |
| $I_{CE0}$      | $V_{CE}=-30\text{V}$   | $I_B=0$            |                 |            | -1         | $\mu\text{A}$ |
| $I_{EB0}$      | $V_{EB}=-3\text{V}$    | $I_C=0$            |                 |            | -1         | $\mu\text{A}$ |
| $*h_{FE(1)}$   | $V_{CE}=-2\text{V}$    | $I_C=-1\text{A}$   | 100             | 150        | 400        |               |
| $h_{FE(2)}$    | $V_{CE}=-2\text{V}$    | $I_C=-20\text{mA}$ | 30              | 200        |            |               |
| $V_{CE(sat)}$  | $I_C=-2\text{A}$       | $I_B=-0.2\text{A}$ |                 | -0.3       | -0.5       | V             |
| $V_{BE(sat)}$  | $I_C=-2\text{A}$       | $I_B=-0.2\text{A}$ |                 | -1         | -2         | V             |
| $f_T$          | $V_{CE}=-5\text{V}$    | $I_C=-0.1\text{A}$ |                 | 80         |            | MHz           |
| $C_{ob}$       | $V_{CB}=-10\text{V}$   | $I_E=0$            | $f=1\text{MHz}$ | 45         |            | pF            |

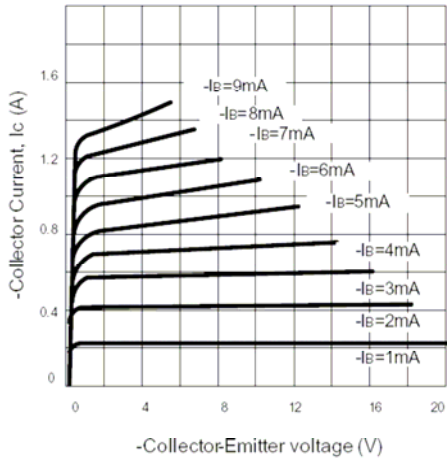
\*脉冲测试: 脉宽 $\leq 300\mu\text{S}$ , 占空比 $\leq 2.0\%$ /pulse test: pulse width $\leq 300\mu\text{S}$ , duty cycle $\leq 2.0\%$ .

| $h_{FE(1)}$ 分档<br>$h_{FE(1)}$ Classifications | Q       | P       | E       |
|---|---------|---------|---------|
| $h_{FE(1)}$ 范围<br>$h_{FE(1)}$ Range           | 100-200 | 160-320 | 200-400 |
| 印章<br>Marking                                 | H72Q    | H72P    | H72E    |

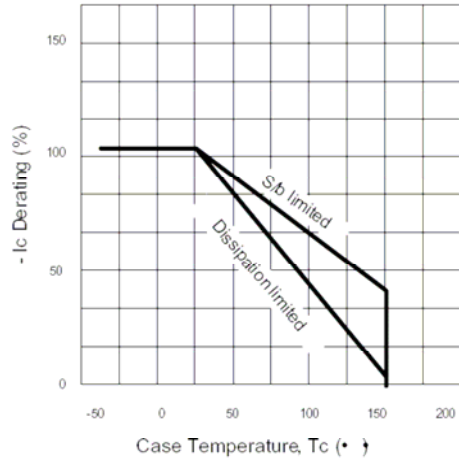


# 2SB772M (3CA772M)

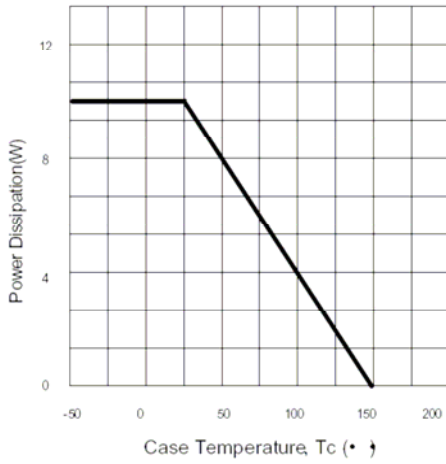
### Static Characteristics



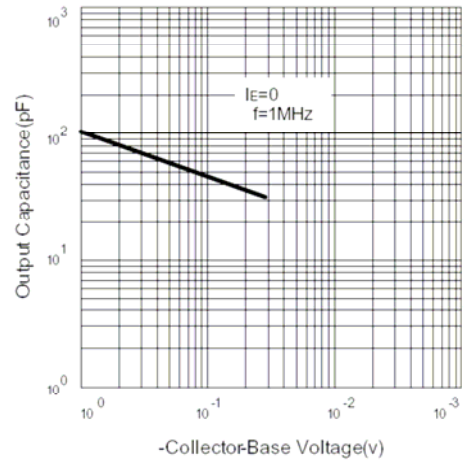
### Derating Curve of Safe Operating Areas



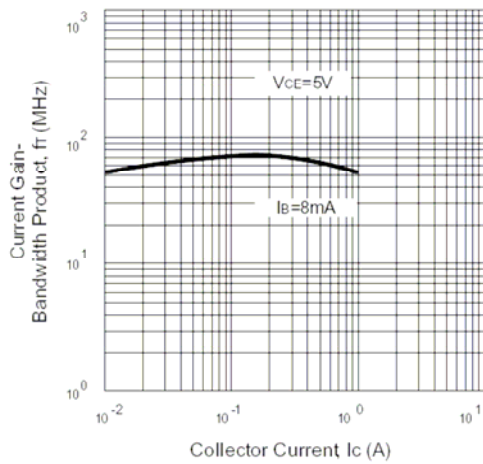
### Power Derating



### Collector Output Capacitance



### Current Gain - Bandwidth Product



### Safe Operating Area

