



BLH4083

## 高频放大晶体管

### 描述:

硅外延 NPN 晶体管  
 高频,  $f_T$  典型值 4GHz  
 低噪声

### 应用:

高频放大, 工作频率 900 MHz

### 应用条件 (T=25°C)

| 参数       | 符号        | 最大值      | 单位 |
|----------|-----------|----------|----|
| BC 结击穿电压 | $V_{CBO}$ | 20       | V  |
| EC 结击穿电压 | $V_{CEO}$ | 12       | V  |
| EB 结击穿电压 | $V_{EBO}$ | 3        | V  |
| 集电极电流    | $I_C$     | 50       | mA |
| 功耗       | $P_C$     | 0.2      | W  |
| 结温       | $T_j$     | 150      | °C |
| 保存温度     | $T_{stg}$ | -55~+150 | °C |

### 电学特性 (T=25°C)

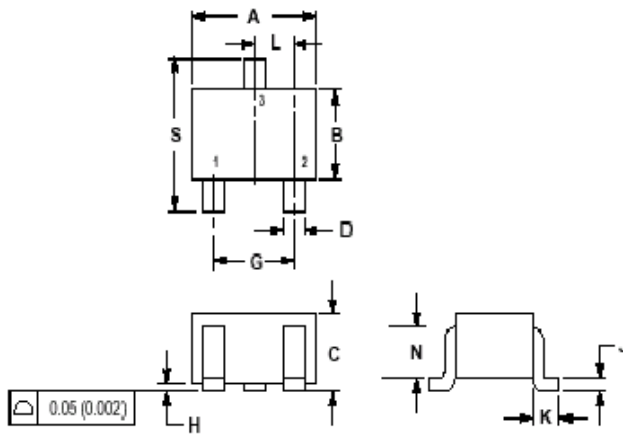
| 参数       | 符号            | 最小  | 典型  | 最大  | 单位      | 测试条件  |
|----------|---------------|-----|-----|-----|---------|---|
| BC 结击穿电压 | $BV_{CBO}$    | 20  |     |     | V       | $I_C=10\mu A$                                     |
| EC 击穿电压  | $BV_{CEO}$    | 12  |     |     | V       | $I_C=1mA$   |
| EB 结击穿电压 | $BV_{EBO}$    | 3   |     |     | V       | $I_E=10\mu A$                                     |
| BC 结漏电流  | $I_{CBO}$     |     |     | 0.5 | $\mu A$ | $V_{cb}=10V$                                      |
| EB 结漏电流  | $I_{EBO}$     |     |     | 0.5 | $\mu A$ | $V_{eb}=2V$                                       |
| CE 饱和电压  | $V_{CE(SAT)}$ |     |     | 0.5 | V       | $I_c/I_b = 10m A / 5m A$                          |
| 电流增益     | $hFE$         | 56  | 70  | 180 |         | $V_{CE}/I_C=5V/5mA$                               |
| 频率       | $f_T$         | 1.4 | 4   |     | GHz     | $V_{CE}=10V, I_C=10mA$                            |
| 输出电容     | $C_{ob}$      |     | 0.8 | 1.5 | pF      | $V_{cb}=10V, I_e=0A, f=1MHz$                      |
| 噪声因子     | NF            |     | 3.5 |     | db      | $V_{ce}=8V, I_c=2m A, f=500MHz$<br>$R_g=50\Omega$ |

**封装尺寸**

SOT323/SC70

**NOTES:**

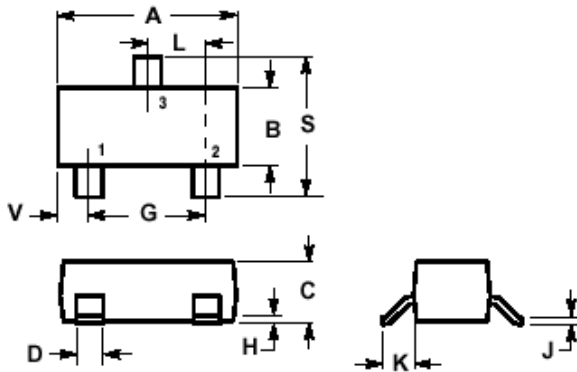
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.



| DIM | INCHES    |       | MILLIMETERS |      |
|-----|-----------|-------|-------------|------|
|     | MIN       | MAX   | MIN         | MAX  |
| A   | 0.071     | 0.087 | 1.80        | 2.20 |
| B   | 0.045     | 0.053 | 1.15        | 1.35 |
| C   | 0.032     | 0.040 | 0.80        | 1.00 |
| D   | 0.012     | 0.016 | 0.30        | 0.40 |
| G   | 0.047     | 0.055 | 1.20        | 1.40 |
| H   | 0.000     | 0.004 | 0.00        | 0.10 |
| J   | 0.004     | 0.010 | 0.10        | 0.25 |
| K   | 0.017 REF |       | 0.425 REF   |      |
| L   | 0.026 BSC |       | 0.650 BSC   |      |
| N   | 0.028 REF |       | 0.700 REF   |      |
| S   | 0.079     | 0.095 | 2.00        | 2.40 |

- PIN 1: BASE  
 2. EMITTER  
 3. COLLECTOR

SOT23


**NOTES:**

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

| DIM | INCHES |        | MILLIMETERS |       |
|-----|--------|--------|-------------|-------|
|     | MIN    | MAX    | MIN         | MAX   |
| A   | 0.1102 | 0.1197 | 2.80        | 3.04  |
| B   | 0.0472 | 0.0551 | 1.20        | 1.40  |
| C   | 0.0350 | 0.0440 | 0.89        | 1.11  |
| D   | 0.0150 | 0.0200 | 0.37        | 0.50  |
| G   | 0.0701 | 0.0807 | 1.78        | 2.04  |
| H   | 0.0005 | 0.0040 | 0.013       | 0.100 |
| J   | 0.0034 | 0.0070 | 0.085       | 0.177 |
| K   | 0.0140 | 0.0285 | 0.35        | 0.69  |
| L   | 0.0350 | 0.0401 | 0.89        | 1.02  |
| S   | 0.0830 | 0.1039 | 2.10        | 2.64  |
| V   | 0.0177 | 0.0236 | 0.45        | 0.60  |

- STYLE 8:  
 PIN 1: ANODE  
 2. NO CONNECTION  
 3. CATHODE