

Silicon PNP Power Transistor

2SA1695

DESCRIPTION

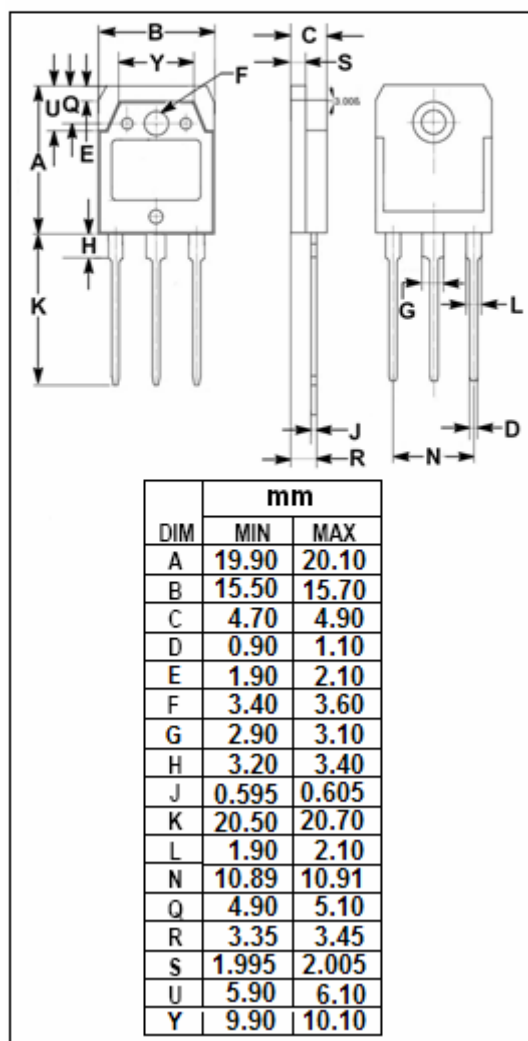
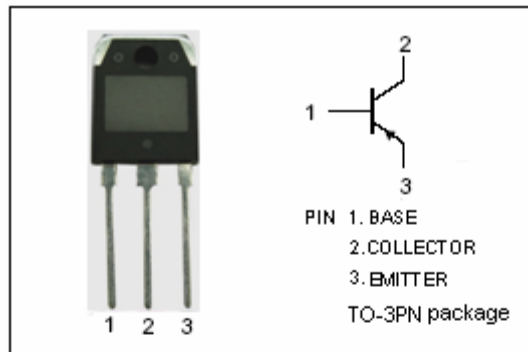
- High Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -140V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type 2SC4468

APPLICATIONS

- Designed for audio and general purpose applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -140 | V |
| V_{CEO} | Collector-Emitter Voltage | -140 | V |
| V_{EBO} | Emitter-Base Voltage | -6 | V |
| I_C | Collector Current-Continuous | -10 | A |
| I_B | Base Current-Continuous | -4 | A |
| P_C | Collector Power Dissipation @ $T_C=25^\circ\text{C}$ | 100 | W |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|------|------|------|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C = -50\text{mA}$; $I_B = 0$ | -140 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -5\text{A}$; $I_B = -0.5\text{A}$ | | | -0.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = -140\text{V}$; $I_E = 0$ | | | -10 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -6\text{V}$; $I_C = 0$ | | | -10 | μA |
| h_{FE} | DC Current Gain | $I_C = -3\text{A}$; $V_{CE} = -4\text{V}$ | 50 | | 180 | |
| C_{OB} | Output Capacitance | $I_E = 0$; $V_{CB} = -10\text{V}$; $f = 1.0\text{MHz}$ | | 400 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_E = 0.5\text{A}$; $V_{CE} = -12\text{V}$ | | 20 | | MHz |

Switching Times

| | | | | | | |
|-----------|--------------|---|--|------|--|---------------|
| t_{on} | Turn-on Time | $I_C = -5\text{A}$, $R_L = 12\ \Omega$, $I_{B1} = -I_{B2} = -0.5\text{A}$, $V_{CC} = -60\text{V}$ | | 0.17 | | μs |
| t_{stg} | Storage Time | | | 1.86 | | μs |
| t_f | Fall Time | | | 0.27 | | μs |

◆ h_{FE} Classifications

| O | P | Y |
|--------|--------|--------|
| 50-100 | 70-140 | 90-180 |