

isc Silicon PNP Power Transistor
2SA1107
DESCRIPTION

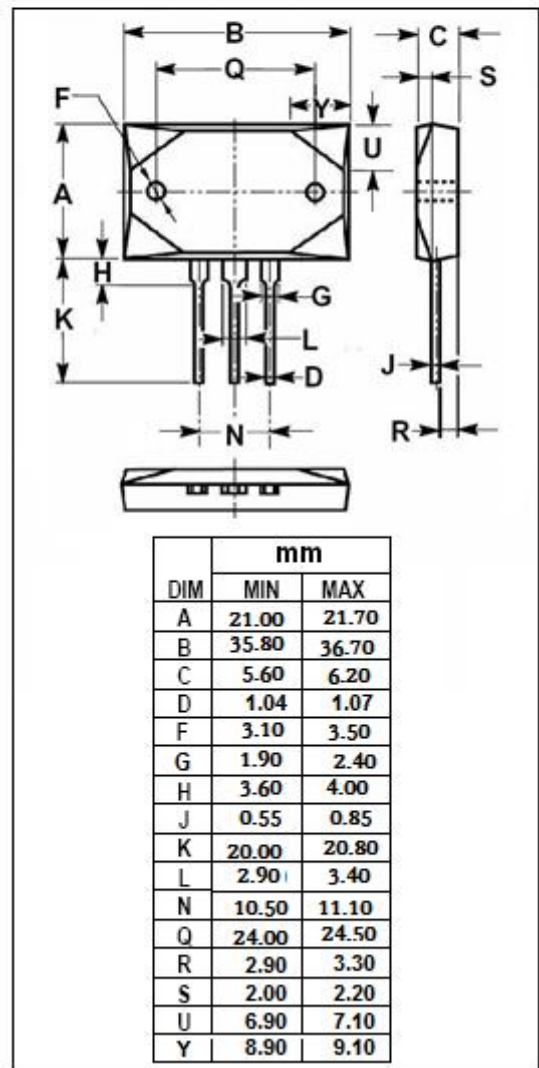
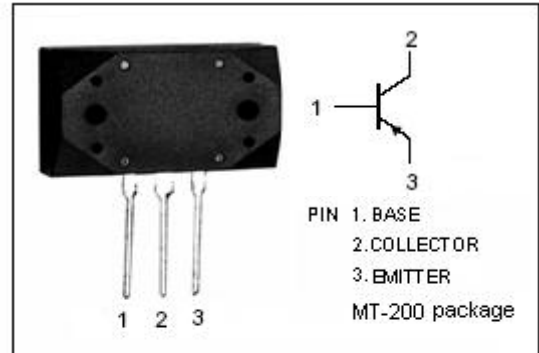
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -150V(\text{Min})$
- Good Linearity of h_{FE}
- High Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- For audio and general purpose applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -150 | V |
| V_{CEO} | Collector-Emitter Voltage | -150 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -10 | A |
| P_C | Collector Power Dissipation @ $T_c=25^\circ\text{C}$ | 120 | 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°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|------|------|------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = -25mA; I _B = 0 | -150 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = -1mA; I _C = 0 | -5 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -5A; I _B = -0.5A | | | -2.0 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = -5A; V _{CE} = -5V | | | -2.0 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -150V; I _E = 0 | | | -10 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -5V; I _C = 0 | | | -10 | μ A |
| h _{FE-1} | DC Current Gain | I _C = -1A; V _{CE} = -5V | 55 | | 160 | |
| h _{FE-2} | DC Current Gain | I _C = -5A; V _{CE} = -5V | 35 | | | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = -10V; f _{test} = 1.0MHz | | 250 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C = -0.5A; V _{CE} = -10V | | 50 | | MHz |

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