

isc Silicon PNP Power Transistor

2SA1301

DESCRIPTION

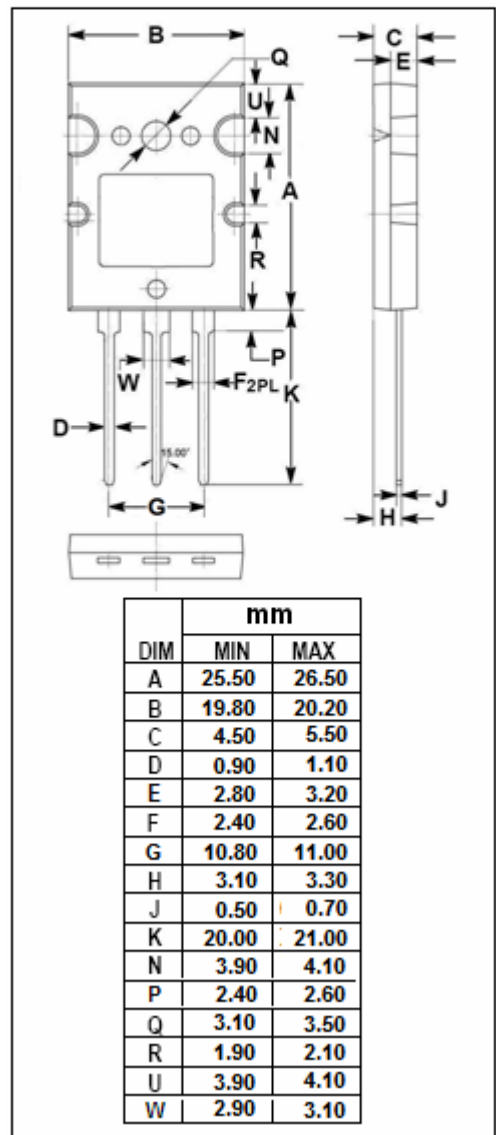
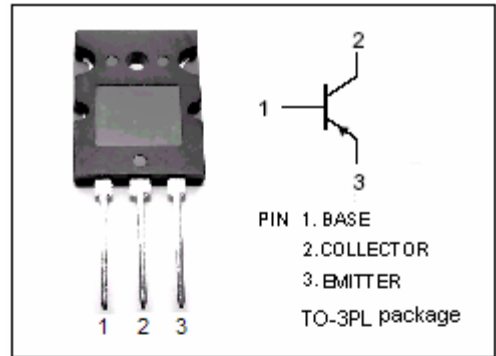
- High Power Dissipation
- Collector-Emitter Breakdown Voltage:
: $V_{(BR)CEO} = -160V(\text{Min})$
- Complement to Type 2SC3280

APPLICATIONS

- Power amplifier applications
- Recommend for 80W high fidelity audio frequency amplifier output stage applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -160 | V |
| V_{CEO} | Collector-Emitter Voltage | -160 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -12 | A |
| I_B | Base Current-Continuous | -1.2 | 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 | $^\circ\text{C}$ |



isc Silicon PNP Power Transistor**2SA1301****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 | $I_C = -50\text{mA}; I_B = 0$ | -160 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -8.0\text{A}; I_B = -0.8\text{A}$ | | | -2.5 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C = -6\text{A}; V_{CE} = -5\text{V}$ | | | -1.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB} = -160\text{V}; I_E = 0$ | | | -5 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB} = -5\text{V}; I_C = 0$ | | | -5 | μA |
| h_{FE-1} | DC Current Gain | $I_C = -1\text{A}; V_{CE} = -5\text{V}$ | 55 | | 160 | |
| h_{FE-2} | DC Current Gain | $I_C = -6\text{A}; V_{CE} = -5\text{V}$ | 35 | | | |
| C_{OB} | Output Capacitance | $I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$ | | 480 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_C = -1\text{A}; V_{CE} = -5\text{V}$ | | 30 | | MHz |

◆ **h_{FE-1} Classifications**

| | |
|--------|--------|
| R | O |
| 55-110 | 80-160 |