

isc Silicon PNP Power Transistor

2SA1301

DESCRIPTION

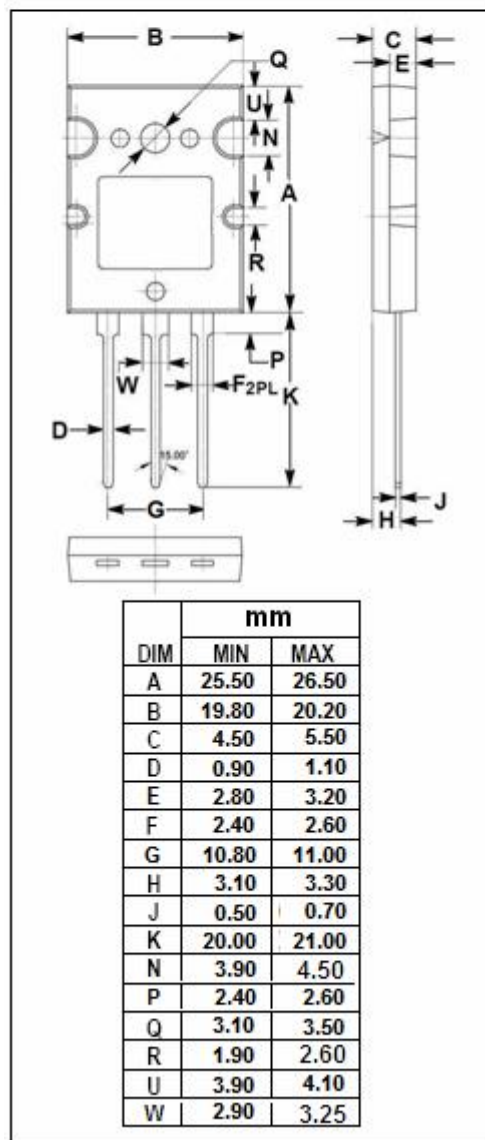
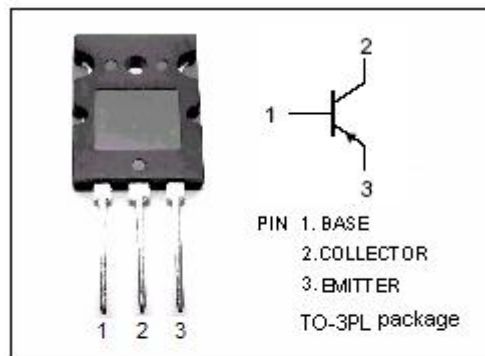
- High Power Dissipation
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -160V(\text{Min})$
- Complement to Type 2SC3280
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

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°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|------|------|------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = -50mA; I _B = 0 | -160 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -8.0A; I _B = -0.8A | | | -2.5 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = -6A; V _{CE} = -5V | | | -1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -160V; I _E = 0 | | | -5 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -5V; I _C = 0 | | | -5 | μ A |
| h _{FE-1} | DC Current Gain | I _C = -1A; V _{CE} = -5V | 55 | | 160 | |
| h _{FE-2} | DC Current Gain | I _C = -6A; V _{CE} = -5V | 35 | | | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = -10V; f= 1.0MHz | | 480 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C =-1A; V _{CE} = -5V | | 30 | | MHz |

◆ h_{FE-1} Classifications

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

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