

NJW0281G

Rev.F Mar.-2016

/ Descriptions

TO-3P NPN Silicon NPN transistor in a TO-3P Plastic Package.

/ Features

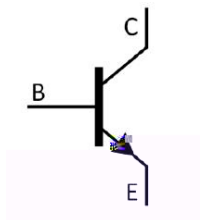
100W NJW0302G

Recommend for 100W high fidelity audio frequency amplifier output stage, Complementary to NJW0302G.

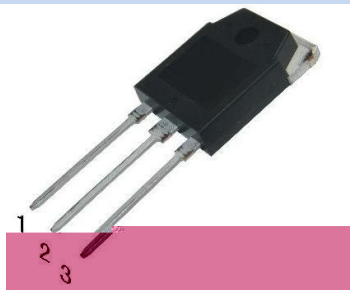
/ Applications

Power amplifier applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

/ h_{FE} Classifications & Marking

See Marking Instructions.

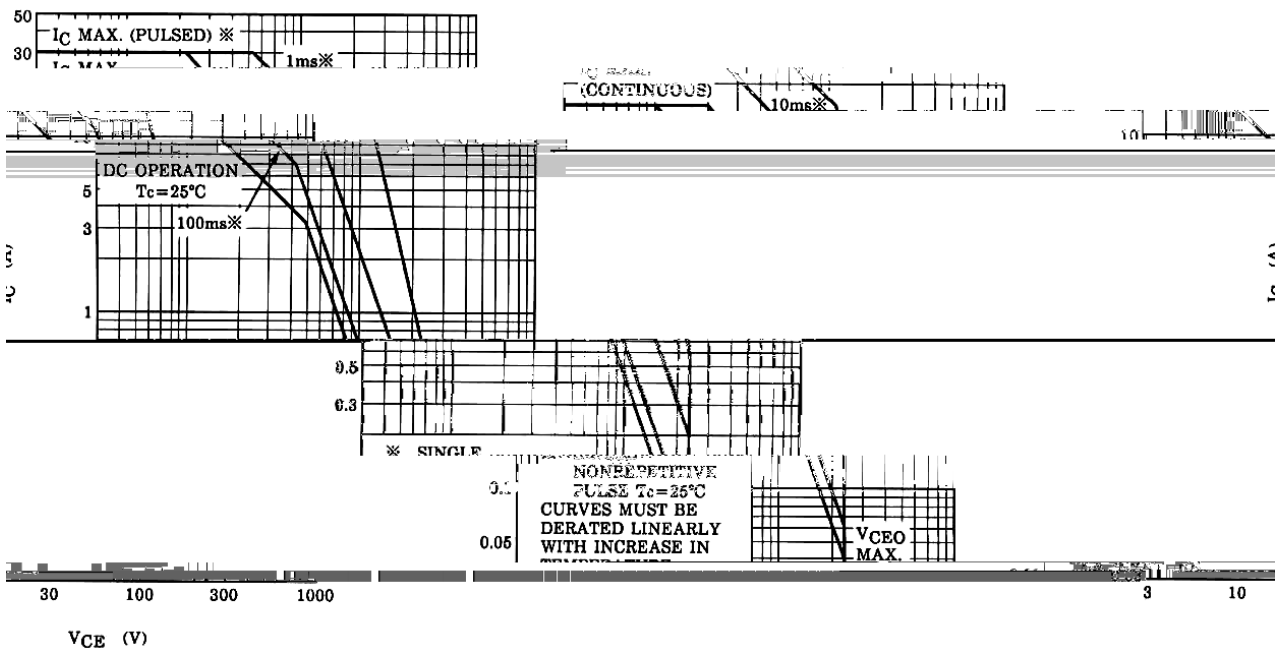
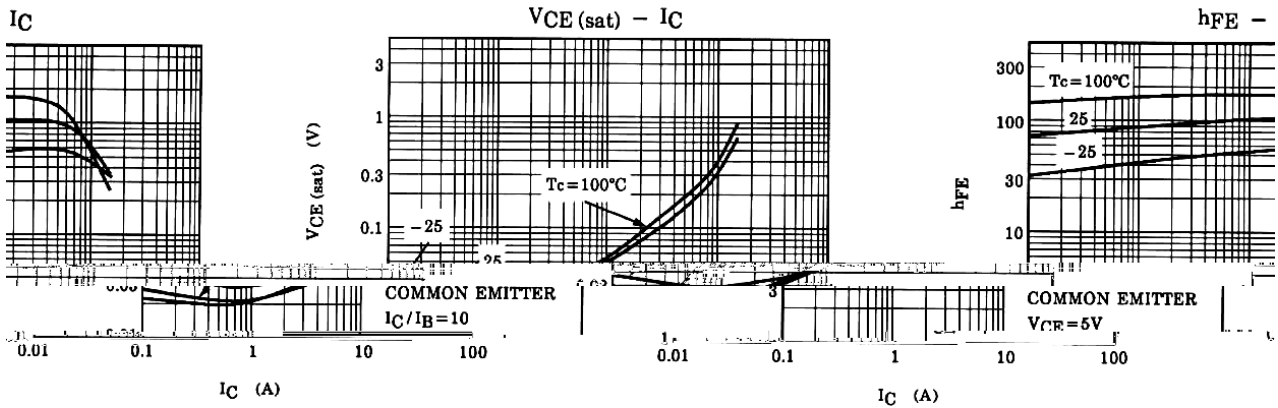
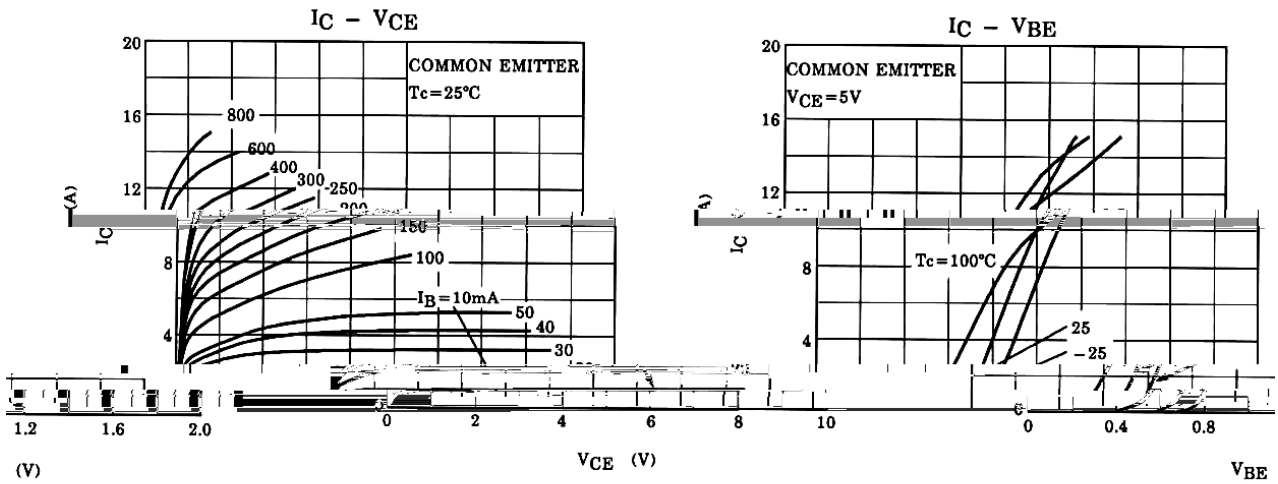
/ Absolute Maximum Ratings(Ta=25)

| Parameter | Symbol | Rating | Unit |
|--------------------------------|-----------|---------|------|
| Collector to Base Voltage | V_{CBO} | 230 | V |
| Collector to Emitter Voltage | V_{CEO} | 230 | V |
| Emitter to Base Voltage | V_{EBO} | 5 | V |
| Collector Current - Continuous | I_C | 15 | A |
| Peak Collector Current | I_{Cp} | 30 | A |
| Base Current | I_B | 1.5 | A |
| Collector Power Dissipation | P_C | 150 | W |
| Junction Temperature | T_j | 150 | °C |
| Storage Temperature Range | T_{stg} | -55 150 | °C |

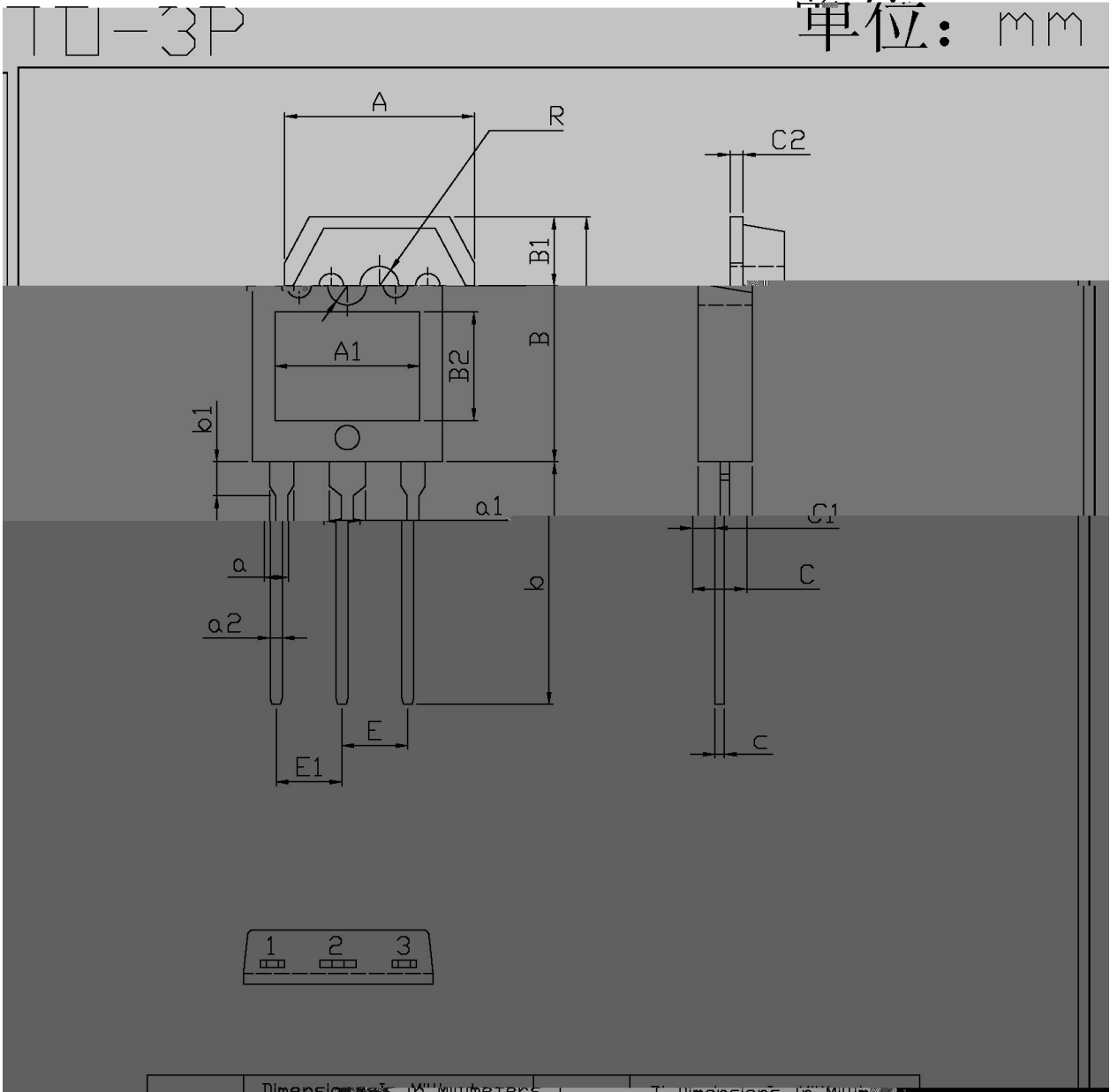
/ Electrical Characteristics(Ta=25)

| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---------------|---------------------------------|-----|-----|-----|------|
| Collector to Emitter Breakdown Voltage | V_{CEO} | $I_C=50mA$ $I_E=0$ | 230 | | | V |
| Collector Cut-Off Current | I_{CBO} | $V_{CB}=230V$ $I_E=0$ | | | 5 | A |
| Emitter Cut-Off Current | I_{EBO} | $V_{EB}=5.0V$ $I_C=0$ | | | 5 | A |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=5.0V$ $I_C=1.0A$ | 55 | | 160 | |
| | $h_{FE(2)}$ | $V_{CE}=5.0V$ $I_C=7.0A$ | 35 | 60 | | |
| Collector to Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=8.0A$ $I_B=0.8A$ | | 0.4 | 3.0 | V |
| Base to Emitter Voltage | V_{BE} | $V_{CE}=5.0V$ $I_C=7.0A$ | | 1.0 | 1.5 | V |
| Transition Frequency | f_T | $I_C=1.0A$ $V_{CE}=5.0V$ | | 30 | | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=10V$ $f=1.0MHz$ $I_E=0$ | | 200 | | pF |

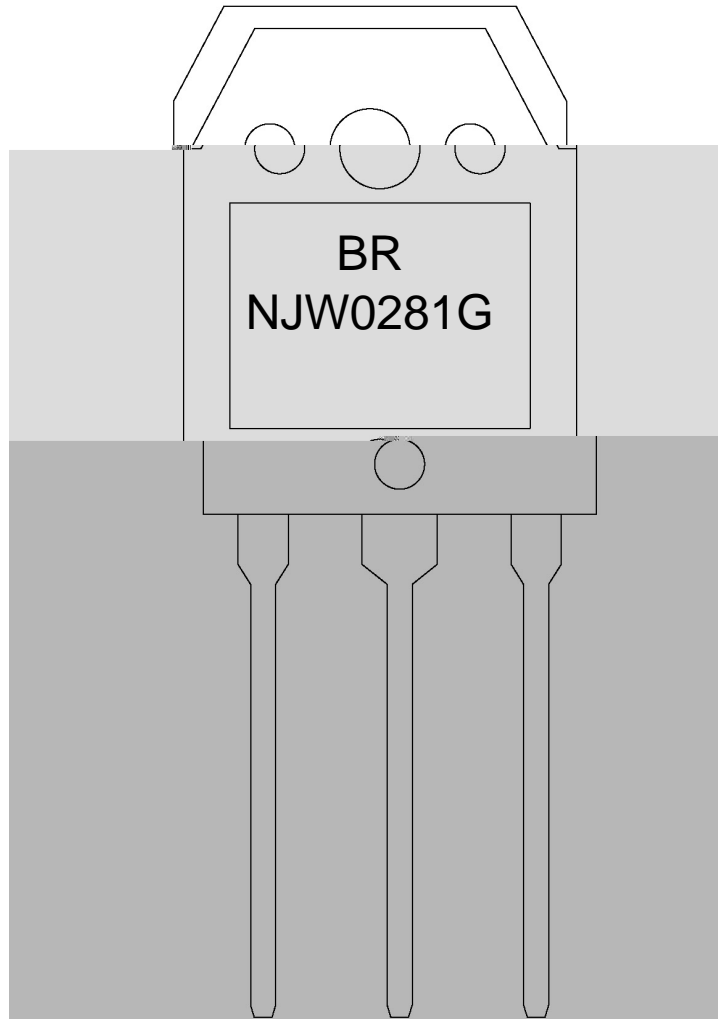
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

NJW0281G

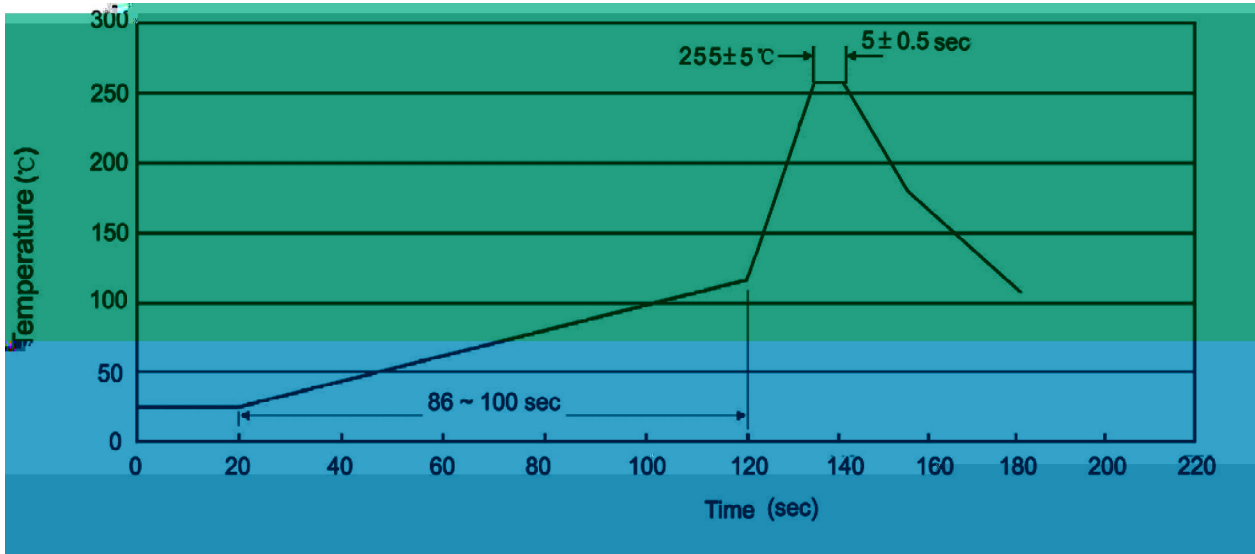
Note:

BR: Company Code.

NJW0281G: Product Type.

****: Lot No. Code, code change with Lot No.

() / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- | | | | | | |
|---|-------|-----|-----------|----------|---|
| 1 | 25 | 150 | 60 | 90sec; | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 | | 5±0.5sec; | | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

270±5 10±1 sec. Temp.:270±5°C Time:10±1 sec

/ Packaging SPEC.

/ TUBE

| Package Type | Units | | | | Dimension | | | (unit mm ³) |
|--------------|-------|--|--|--|-----------|--|--|-------------------------|
| | | | | | | | | |
| | | | | | | | | |

/ Notices