TOSHIBA Transistor Silicon PNP Triple Diffused Type

2SA2120

Power Amplifier Applications

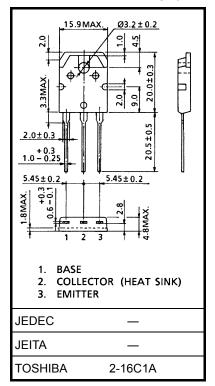
Unit: mm

- Complementary to 2SC5948
- Recommended for audio frequency amplifier output stage.

Absolute Maximum Ratings (Ta = 25°C)

| Characteristic | Symbol | Rating | Unit |
|--|------------------|---------|------|
| Collector-base voltage | VCBO | -200 | V |
| Collector-emitter voltage | VCEO | -200 | V |
| Emitter-base voltage | VEBO | -5 | V |
| Collector current | IC | -12 | Α |
| Base current | ΙΒ | -1.2 | Α |
| Collector power dissipation (T _C =25°C) | PC | 200 | W |
| Junction temperature | Tj | 150 | °C |
| Storage temperature range | T _{stg} | -55~150 | °C |

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.



Weight: 4.7 g (typ.)

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

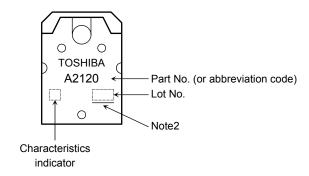


Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Conditions | Min | Тур. | Max | Unit |
|--------------------------------------|--------------------------------|--|------|------|------|------|
| Collector cut-off current | I _{CBO} | $V_{CB} = -200 \text{ V}, I_{E} = 0$ | _ | _ | -5.0 | μΑ |
| Emitter cut-off current | I _{EBO} | $V_{EB} = -5 \text{ V}, I_C = 0$ | _ | _ | -5.0 | μΑ |
| Collector-emitter breakdown voltage | V (BR) CEO | $I_C = -50 \text{ mA}, I_B = 0$ | -200 | _ | _ | V |
| DC current gain | h _{FE (1)} (Note1) | V _{CE} = -5 V, I _C = -1 A | 55 | _ | 160 | |
| | h _{FE (2)} | V _{CE} = -5 V, I _C = -7 A | 35 | 80 | _ | |
| Collector-emitter saturation voltage | V _{CE} (sat) | I _C = -8 A, I _B = -0.8 A | _ | -1.5 | -3.0 | V |
| Base-emitter voltage | V_{BE} | V _{CE} = -5 V, I _C = -7 A | _ | -1.0 | -1.5 | V |
| Transition frequency | f _T | V _{CE} = -5 V, I _C = -1 A | _ | 25 | _ | MHz |
| Collector output capacitance | C _{ob} | V _{CB} = −10 V, I _E = 0, f = 1 MHz | _ | 470 | _ | pF |

Note1: hFE (1) classification R: 55~110, O: 80~160

Marking



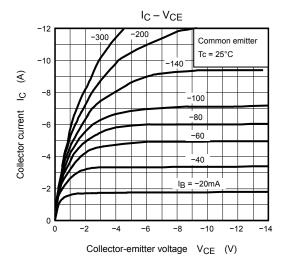
Note2: A line under a Lot No. identifies the indication of product Labels.

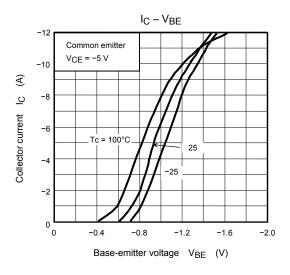
Not underlined: [[Pb]]/INCLUDES > MCV

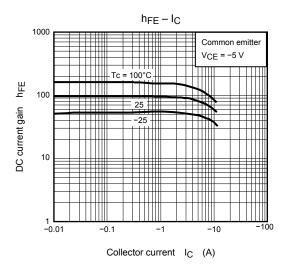
Underlined: [[G]]/RoHS COMPATIBLE or [[G]]/RoHS [[Pb]]

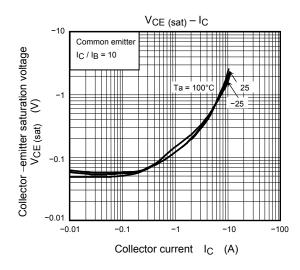
Please contact your TOSHIBA sales representative for details as to environmental matters such as the RoHS compatibility of Product. The RoHS is the Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

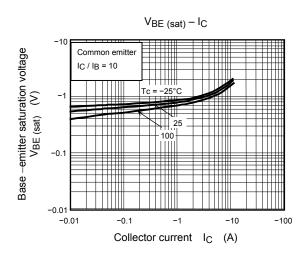
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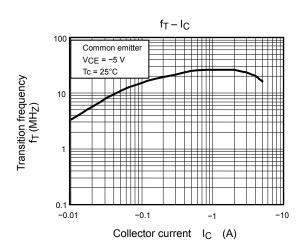


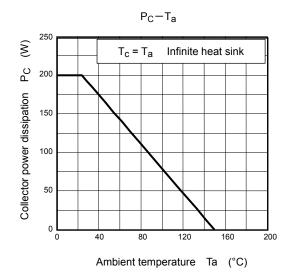


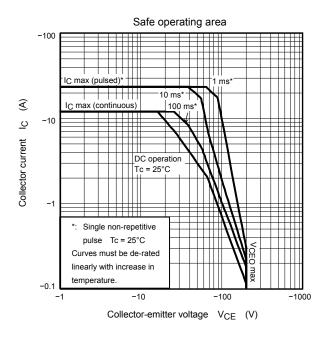


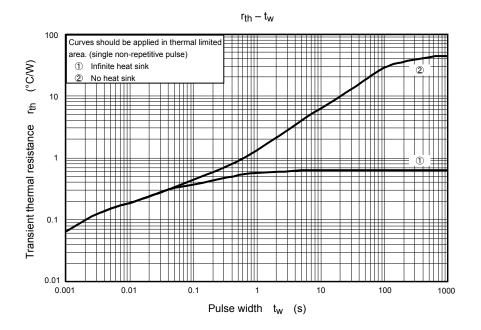












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