TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

2SA1162

Audio Frequency General Purpose Amplifier Applications

Unit: mm

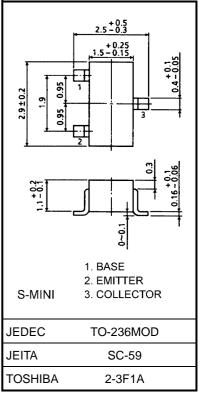
- High voltage and high current: $V_{CEO} = -50 \text{ V}$, $I_C = -150 \text{ mA}$ (max)
- Excellent hFE linearity: $hFE (I_C = -0.1 \text{ mA})/hFE (I_C = -2 \text{ mA})$

= 0.95 (typ.)

- High hFE: hFE = 70~400
- Low noise: NF = 1dB (typ.), 10dB (max)
- Complementary to 2SC2712
- Small package

Maximum Ratings (Ta = 25°C)

| Characteristics | Symbol | Rating | Unit |
|-----------------------------|------------------|---------|------|
| Collector-base voltage | V _{CBO} | -50 | V |
| Collector-emitter voltage | V _{CEO} | -50 | V |
| Emitter-base voltage | V _{EBO} | -5 | V |
| Collector current | Ι _C | -150 | mA |
| Base current | Ι _Β | -30 | mA |
| Collector power dissipation | PC | 150 | mW |
| Junction temperature | Тj | 125 | °C |
| Storage temperature range | T _{stg} | -55~125 | °C |



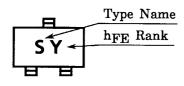
Weight: 0.012 g (typ.)

Electrical Characteristics (Ta = 25°C)

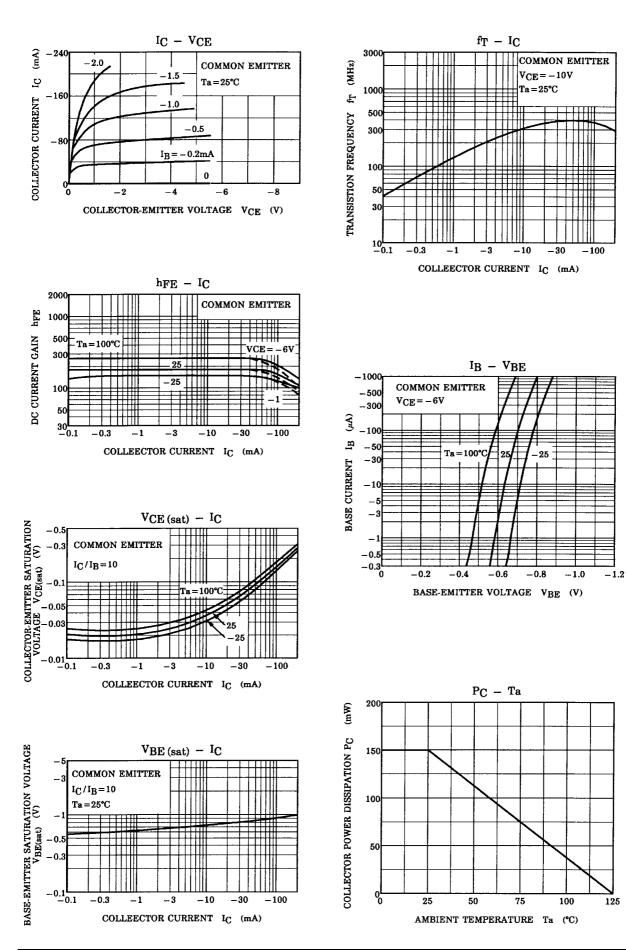
| Characteristics | Symbol | Test Condition | Min | Тур. | Max | Unit |
|--------------------------------------|---------------------------|--|-----|------|------|------|
| Collector cut-off current | I _{CBO} | $V_{CB} = -50 \text{ V}, \text{ I}_{E} = 0$ | | | -0.1 | μA |
| Emitter cut-off current | I _{EBO} | $V_{EB} = -5 \text{ V}, \text{ I}_{C} = 0$ | | — | -0.1 | μA |
| DC current gain | h _{FE} (Note) | $V_{CE} = -6 \text{ V}, \text{ I}_{C} = -2 \text{ mA}$ | 70 | _ | 400 | |
| Collector-emitter saturation voltage | V _{CE (sat)} | $I_{C} = -100 \text{ mA}, I_{B} = -10 \text{ mA}$ | _ | -0.1 | -0.3 | V |
| Transition frequency | f _T | $V_{CE} = -10 \text{ V}, \text{ I}_{C} = -1 \text{ mA}$ | 80 | _ | _ | MHz |
| Collector output capacitance | C _{ob} | $V_{CB} = -10 \text{ V}, \text{ I}_{E} = 0, \text{ f} = 1 \text{ MHz}$ | _ | 4 | 7 | pF |
| Noise figure | NF | V_{CE} = -6 V, I_{C} = -0.1 mA, f = 1 kHz, Rg = 10 k\Omega, | | 1.0 | 10 | dB |

Note: hFE classification O (O): 70~140, Y (Y): 120~240, GR (G): 200~400, () marking symbol

Marking



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Handbook" etc.,

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