TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT process)

2SA1832

Audio Frequency General Purpose Amplifier Applications

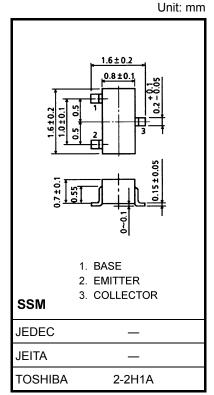
High voltage and high current: $V_{\rm CEO}$ = –50 V, $I_{\rm C}$ = –150 mA (max)

- Excellent hFE linearity: hFE (IC = –0.1 mA)/ hFE (IC = –2 mA)
- = 0.95 (typ.) • High hFE: hFE = 70~400
- High hFE: hFE = $70 \sim 400$
- Complementary to 2SC4738
- Small package

Absolute 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 | ΙC | -150 | mA | |
| Base current | Ι _Β | -30 | mA | |
| Collector power dissipation | P _C | 100 | mW | |
| Junction temperature | Tj | 125 | °C | |
| Storage temperature range | T _{stg} | -55~125 | °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: 2.4 mg (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).

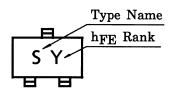
Electrical Characteristics (Ta = 25°C)

| Characteristics | Symbol | Test Condition | Min | Тур. | Max | Unit |
|--------------------------------------|---------------------------|--|-----|------|------|------|
| Collector cut-off current | I _{CBO} | $V_{CB} = -50 \text{ V}, I_E = 0$ | — | _ | -0.1 | μA |
| Emitter cut-off current | I _{EBO} | $V_{EB}=-5~V,~I_C=0$ | | _ | -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 | $V_{CE} = -10 \text{ V}, I_{C} = -1 \text{ mA}$ | 80 | — | — | MHz |
| Collector output capacitance | Cob | $V_{CB} = -10 \text{ V}, \text{ I}_{E} = 0, \text{ f} = 1 \text{ MHz}$ | _ | 4 | 7 | рF |

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

() marking symbol

Marking



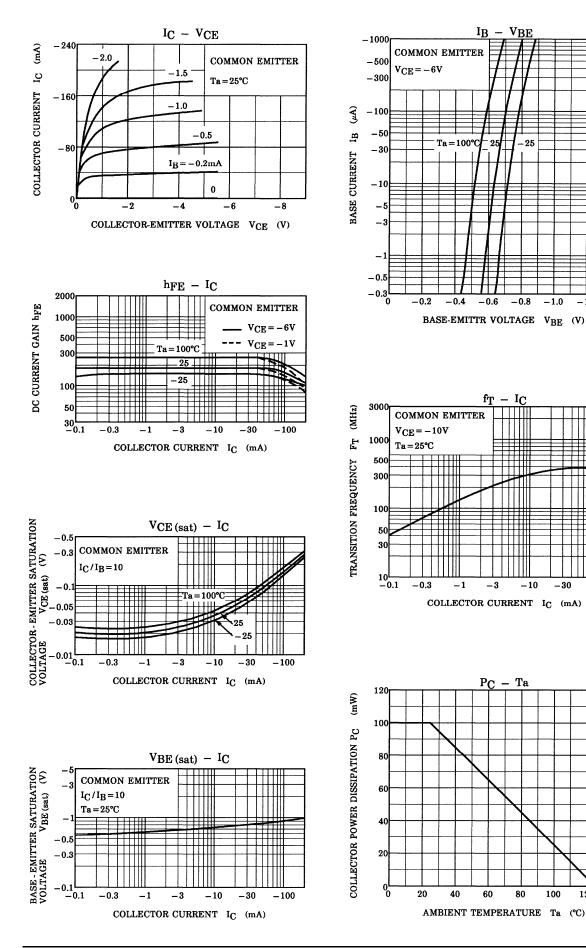
TOSHIBA

-1.2

-30

-100

-1.4



140

120

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