

Applications

- General power amplifier.

Features

- Wide ASO (Adoption of MBIT process).
- Low saturation voltage.
- High reliability.
- High breakdown voltage.
- Micaless package facilitating mounting.

Specifications

(): 2SB1274

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|-----------|------------------------|-------------|------------------|
| Collector-to-Base Voltage | V_{CB0} | | (-)60 | V |
| Collector-to-Emitter Voltage | V_{CEO} | | (-)60 | V |
| Emitter-to-Base Voltage | V_{EBO} | | (-)6 | V |
| Collector Current | I_C | | (-)3 | A |
| Collector Current (Pulse) | I_{CP} | | (-)8 | A |
| Collector Dissipation | P_C | | 2 | W |
| | | $T_c=25^\circ\text{C}$ | 20 | W |
| Junction Temperature | T_J | | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ\text{C}$ |

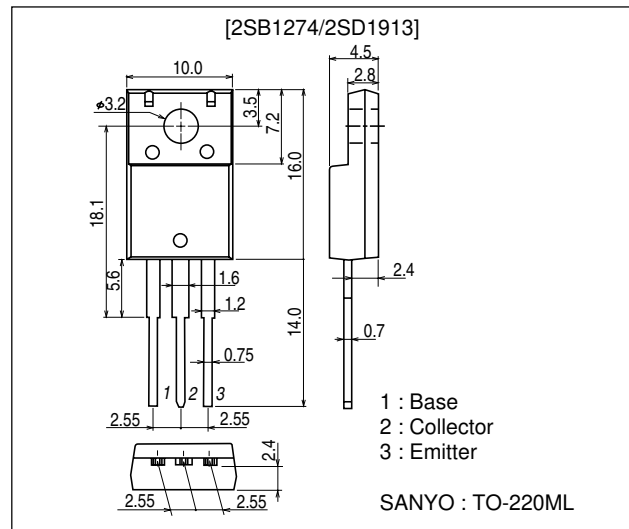
Electrical Characteristics at $T_a=25^\circ\text{C}$

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------------|-----------|-----------------------------|---------|-----|--------|---------------|
| | | | min | typ | max | |
| Collector Cutoff Current | I_{CBO} | $V_{CB}=-40\text{V}, I_E=0$ | | | (-)100 | μA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB}=-4\text{V}, I_C=0$ | | | (-)100 | μA |

Continued on next page.

Package Dimensions

unit : mm
2041A



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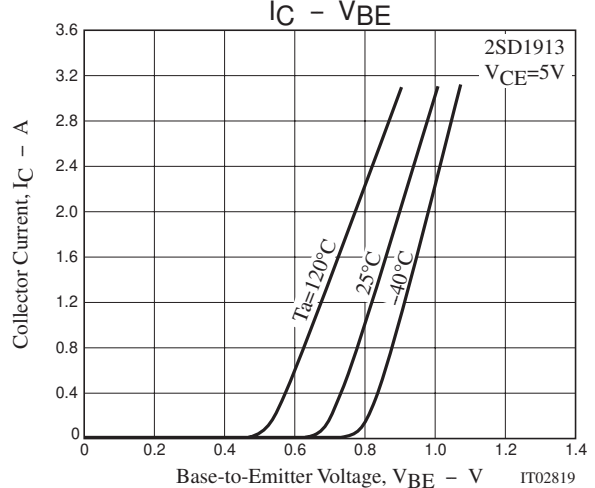
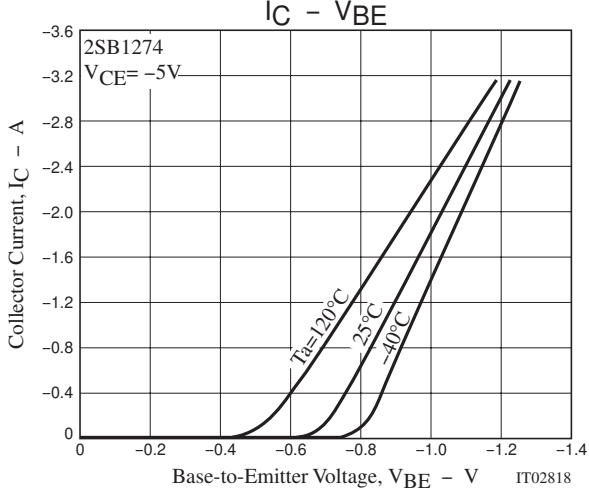
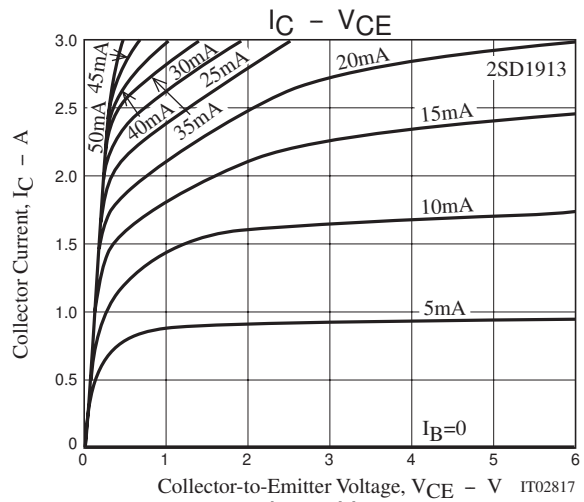
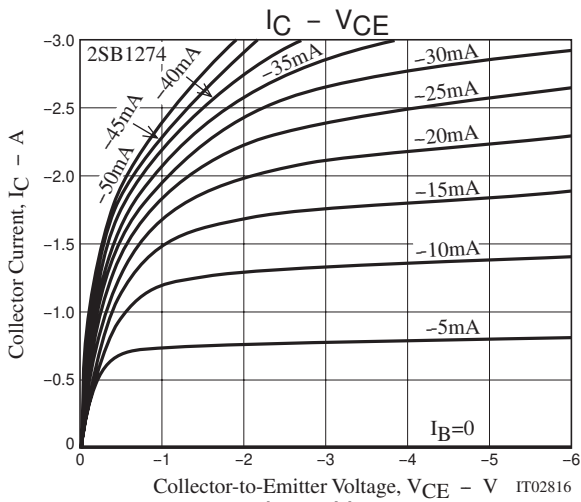
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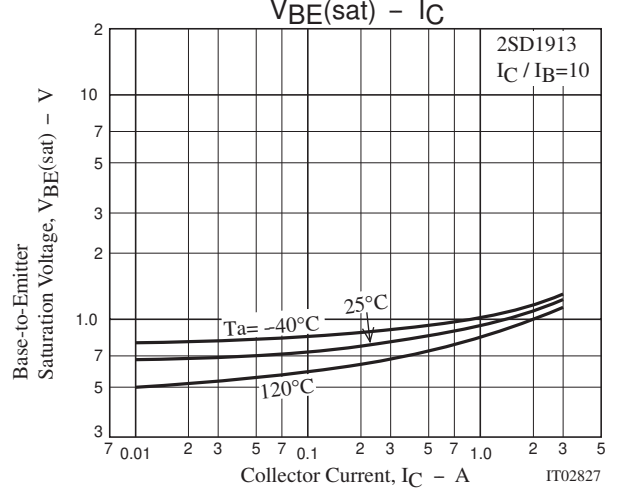
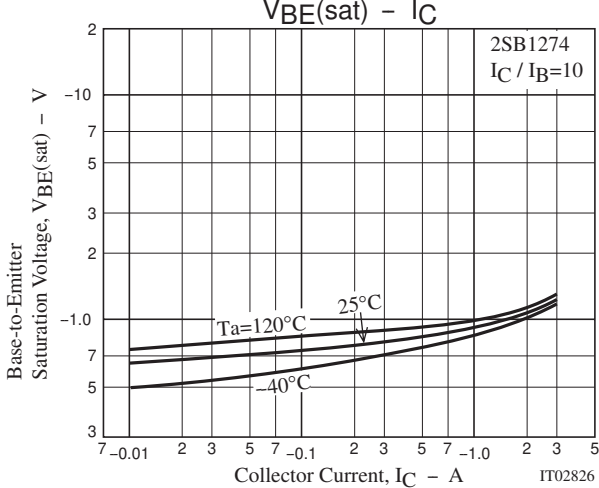
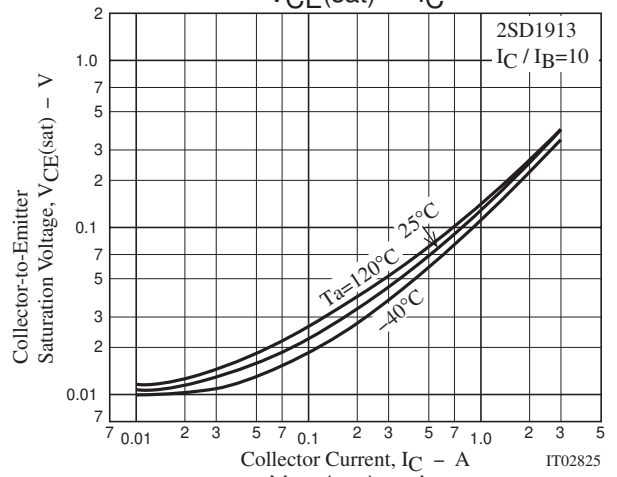
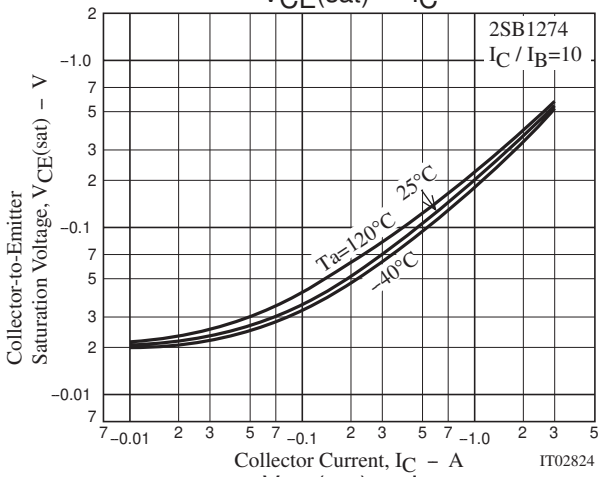
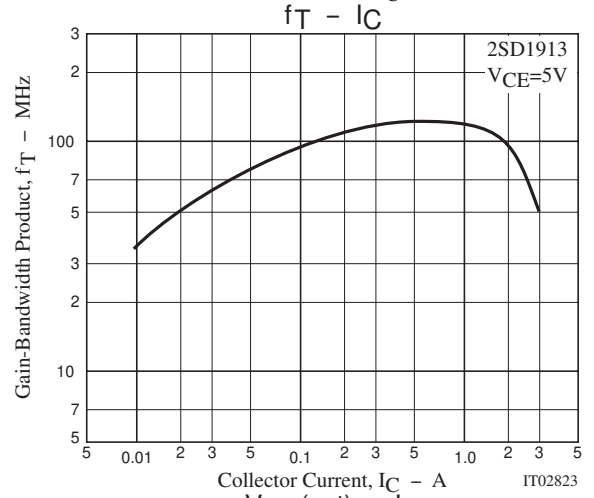
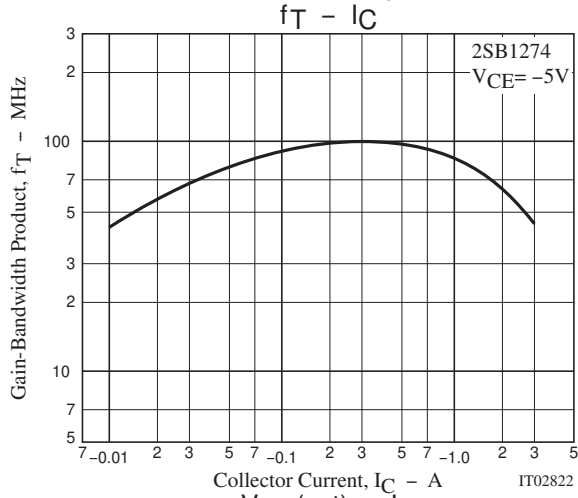
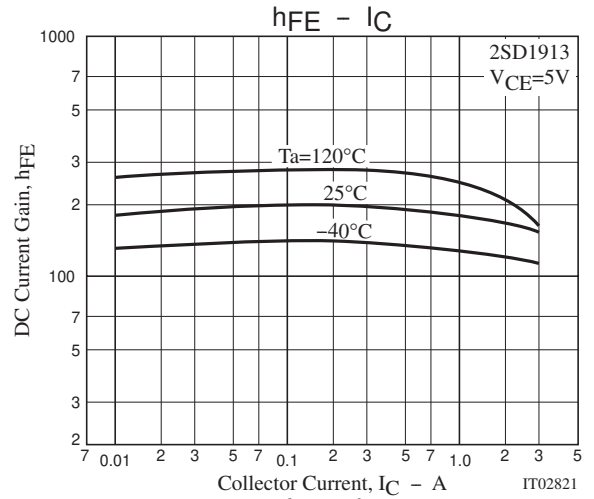
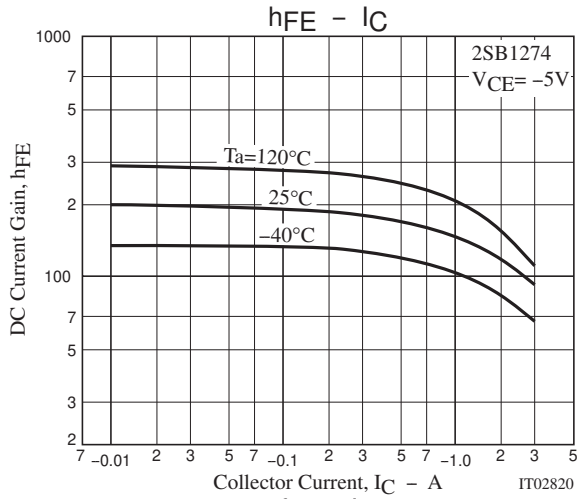
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|-----------------------------------------|---------------|-----------------------------|---------|--------|------|------|
| | | | min | typ | max | |
| DC Current Gain | h_{FE1} | $V_{CE}=(-)5V, I_C=(-)0.5A$ | 70* | | 280* | |
| | h_{FE2} | $V_{CE}=(-)5V, I_C=(-)3A$ | 20 | | | |
| Gain-Bandwidth Product | f_T | $V_{CE}=(-)5V, I_C=(-)0.5A$ | | 100 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB}=(-)10V, f=1MHz$ | | (60)40 | | pF |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)2A, I_B=(-)0.2A$ | | (-)0.4 | (-)1 | V |
| Base-to-Emitter Voltage | V_{BE} | $V_{CE}=(-)5V, I_C=(-)0.5A$ | | (-)0.8 | (-)1 | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=(-)1mA, I_E=0$ | (-)60 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=5mA, R_{BE}=\infty$ | (-)60 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=(-)1mA, I_C=0$ | (-)6 | | | V |

* : The 2SBB1274 / 2SD1913 are classified by 0.5A h_{FE} as follows :

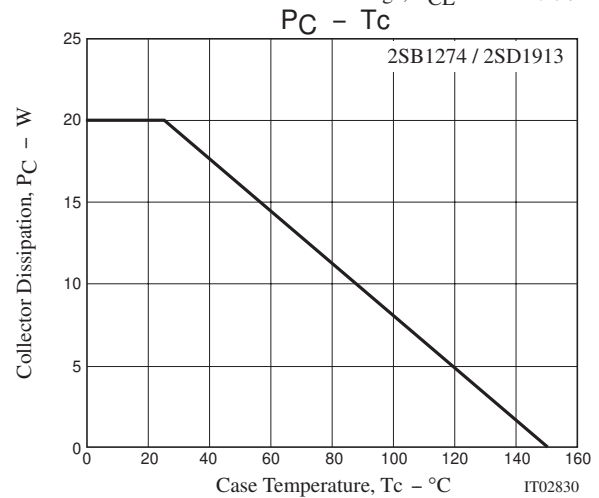
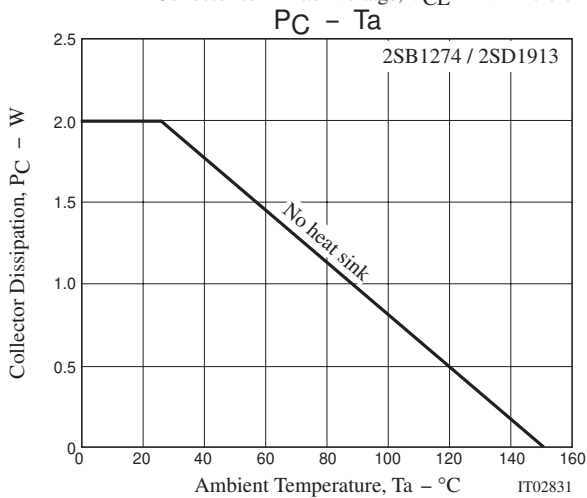
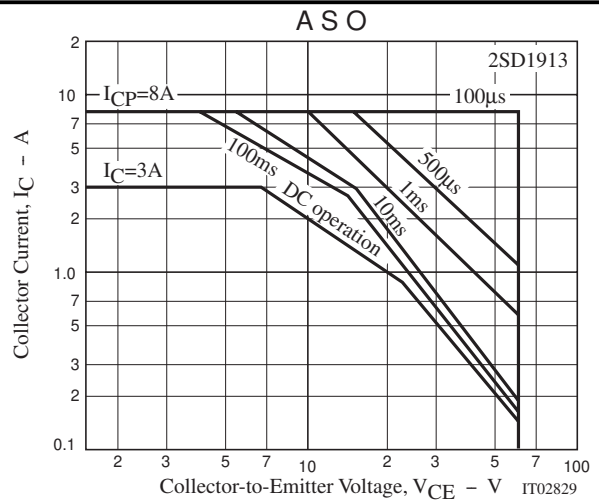
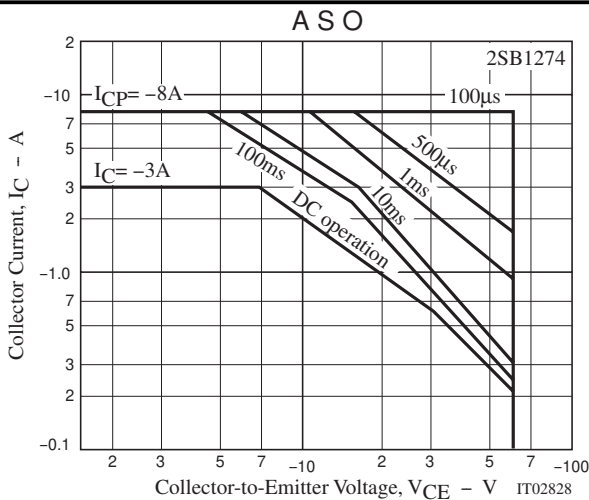
| Rank | Q | R | S |
|----------|-----------|------------|------------|
| h_{FE} | 70 to 140 | 100 to 200 | 140 to 280 |



2SB1274/2SD1913



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