



ON Semiconductor®

ON Semiconductor
DATA SHEET**2SB926 / 2SD1246** — PNP / NPN Epitaxial Planar Silicon Transistors
Large-Current Driving Applications**Applications**

- Power supplies, relay drivers, lamp drivers, electrical equipment.

Features

- Adoption of FBET, MBIT processes.
- Low saturation voltage.
- Large current capacity and wide ASO.

Specifications () : 2SB926

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|------------------------------|------------------|------------|-------------|------|
| Collector-to-Base Voltage | V _{CB0} | | (-)30 | V |
| Collector-to-Emitter Voltage | V _{CEO} | | (-)25 | V |
| Emitter-to-Base Voltage | V _{EBO} | | (-)6 | V |
| Collector Current | I _C | | (-)2 | A |
| Collector Current (Pulse) | I _{CP} | | (-)5 | A |
| Collector Dissipation | P _C | | 0.75 | W |
| Junction Temperature | T _J | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|--------------------------|------------------|--|---------|--------|--------|------|
| | | | min | typ | max | |
| Collector Cutoff Current | I _{CB0} | V _{CB} =(-)20V, I _E =0A | | | (-)0.1 | μA |
| Emitter Cutoff Current | I _{EBO} | V _{EB} =(-)4V, I _C =0A | | | (-)0.1 | μA |
| DC Current Gain | h _{FE1} | V _{CE} =(-)2V, I _C =(-)100mA | 100* | | 560* | |
| | h _{FE2} | V _{CE} =(-)2V, I _C =(-)1.5A, pulse | 65 | 130 | | |
| Gain-Bandwidth Product | f _T | V _{CE} =(-)10V, I _C =(-)50mA | | 150 | | MHz |
| Output Capacitance | C _{ob} | V _{CB} =(-)10V, f=1MHz | | (32)19 | | pF |

Continued on next page.

* : The 2SB926 / 2SD1246 are classified by 100mA h_{FE} as follows :

| Rank | R | S | T | U |
|-----------------|------------|------------|------------|------------|
| h _{FE} | 100 to 200 | 140 to 280 | 200 to 400 | 280 to 560 |

2SB926 / 2SD1246

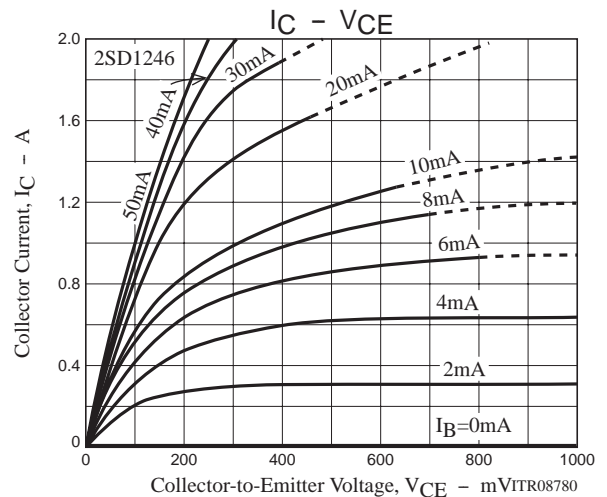
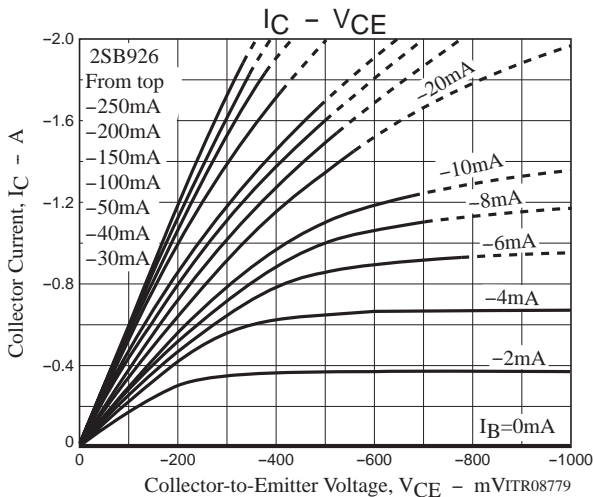
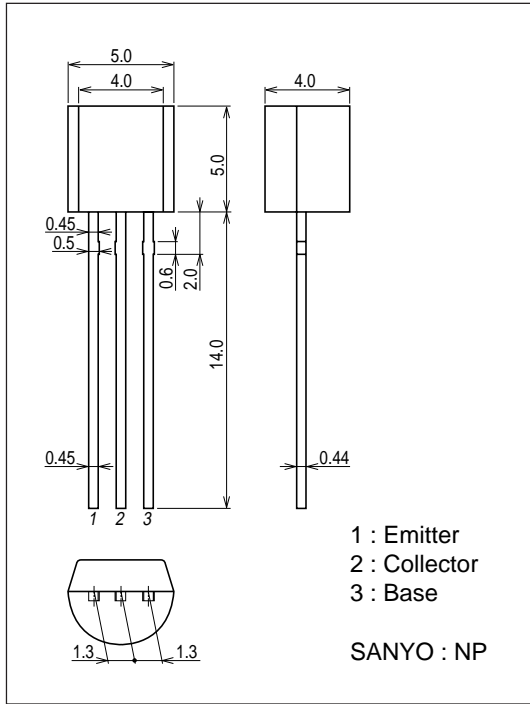
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| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---|---------------|--|---------|-------------|-----------|------|
| | | | min | typ | max | |
| Collector-to-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=(-)1.5A, I_B=(-)75mA, \text{pulse}$ | | (-0.35)0.18 | (-0.6)0.4 | V |
| Base-to-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=(-)1.5A, I_B=(-)75mA$ | | (-0.85) | (-1.2) | V |
| Collector-to-Base Breakdown Voltage | $V_{(BR)CBO}$ | $I_C=(-)10\mu A, I_E=0A$ | (-)30 | | | V |
| Collector-to-Emitter Breakdown Voltage | $V_{(BR)CEO}$ | $I_C=(-)1mA, R_{BE}=\infty$ | (-)25 | | | V |
| Emitter-to-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=(-)10\mu A, I_C=0A$ | (-)6 | | | V |

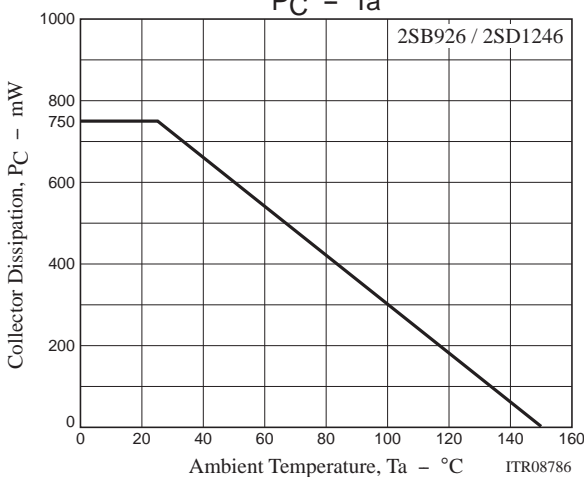
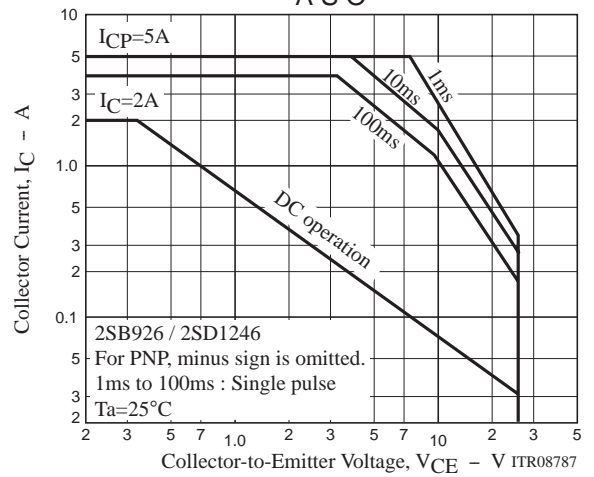
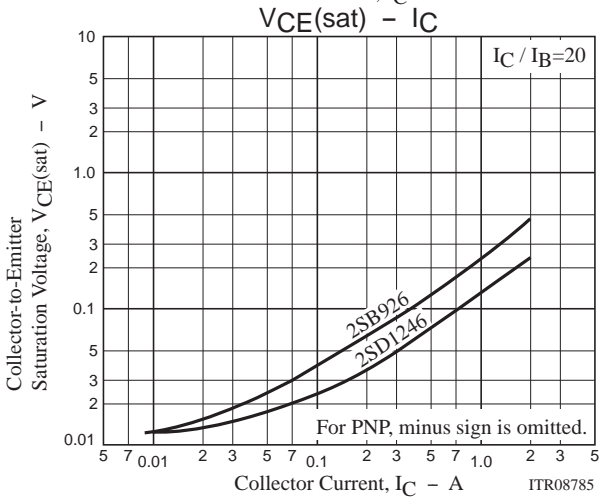
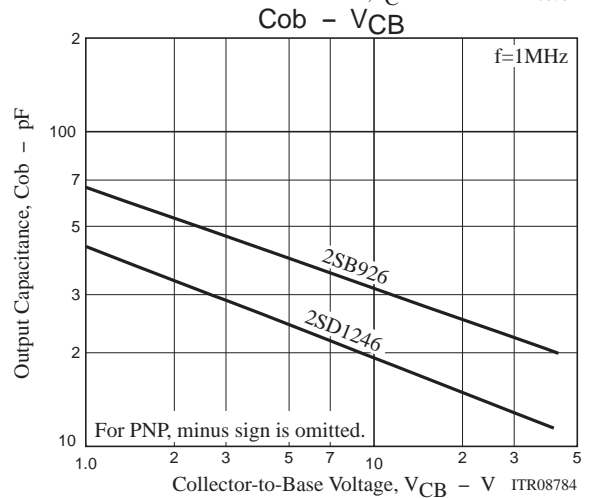
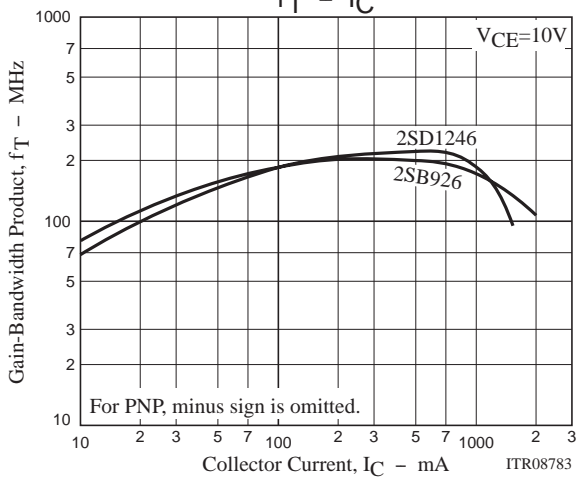
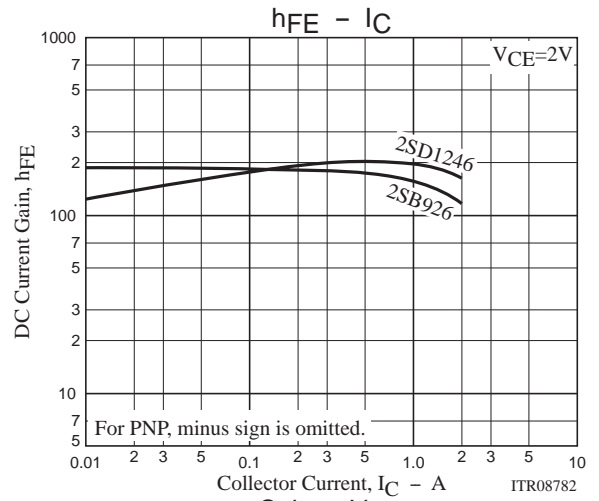
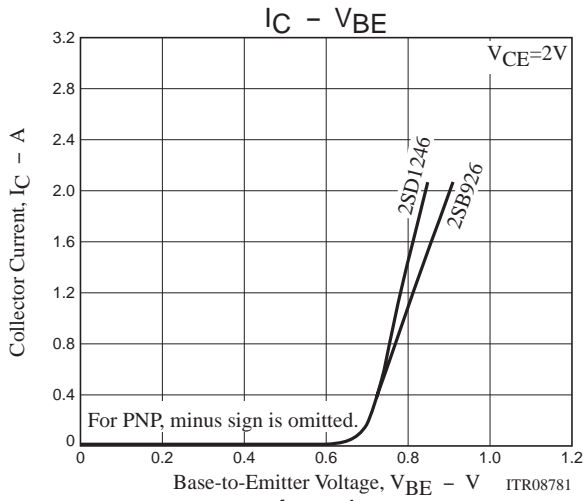
Package Dimensions

unit : mm (typ)

7522-002



2SB926 / 2SD1246



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