

2SA2028G

Silicon PNP epitaxial planar type

For DC-DC converter

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High-speed switching
- S-Mini type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

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

| Parameter | Symbol | Rating | Unit |
|---------------------------------------|-----------|-------------|------------------|
| Collector-base voltage (Emitter open) | V_{CBO} | -20 | V |
| Collector-emitter voltage (Base open) | V_{CEO} | -20 | V |
| Emitter-base voltage (Collector open) | V_{EBO} | -5 | V |
| Collector current | I_C | -1 | A |
| Peak collector current | I_{CP} | -3 | A |
| Collector power dissipation | P_C | 150 | mW |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

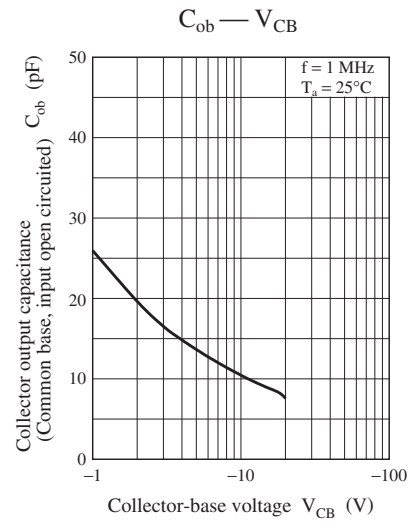
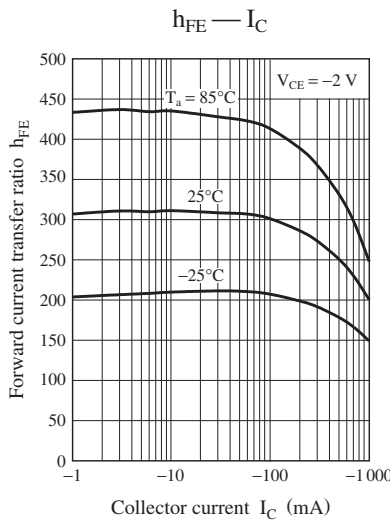
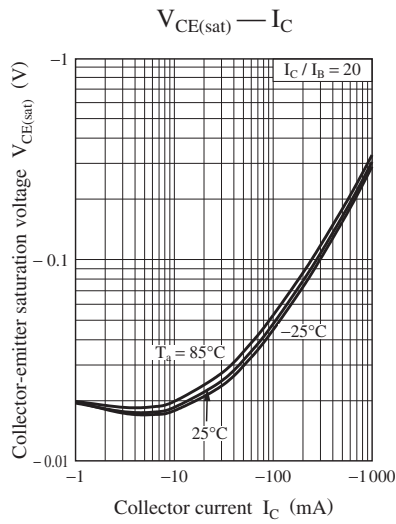
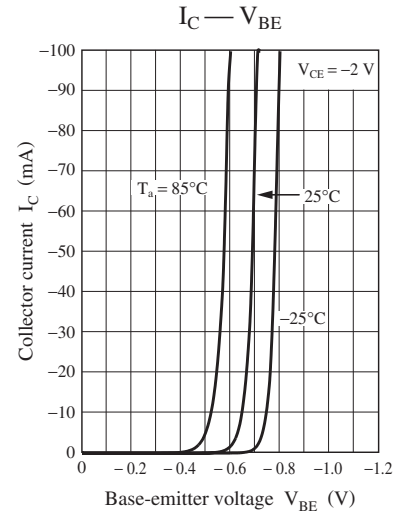
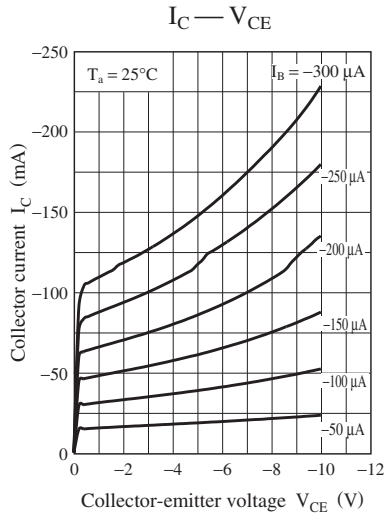
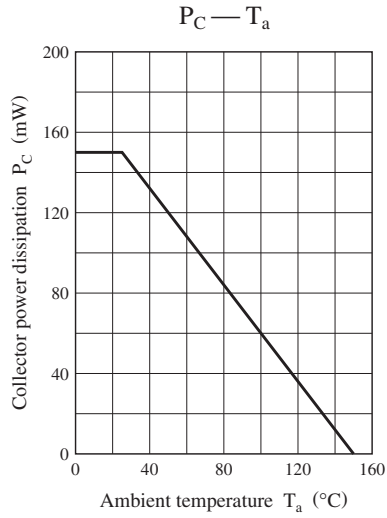
■ Package

- Code
SMini3-F2
- Marking Symbol: AT
- Pin Name
 1. Base
 2. Emitter
 3. Collector

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

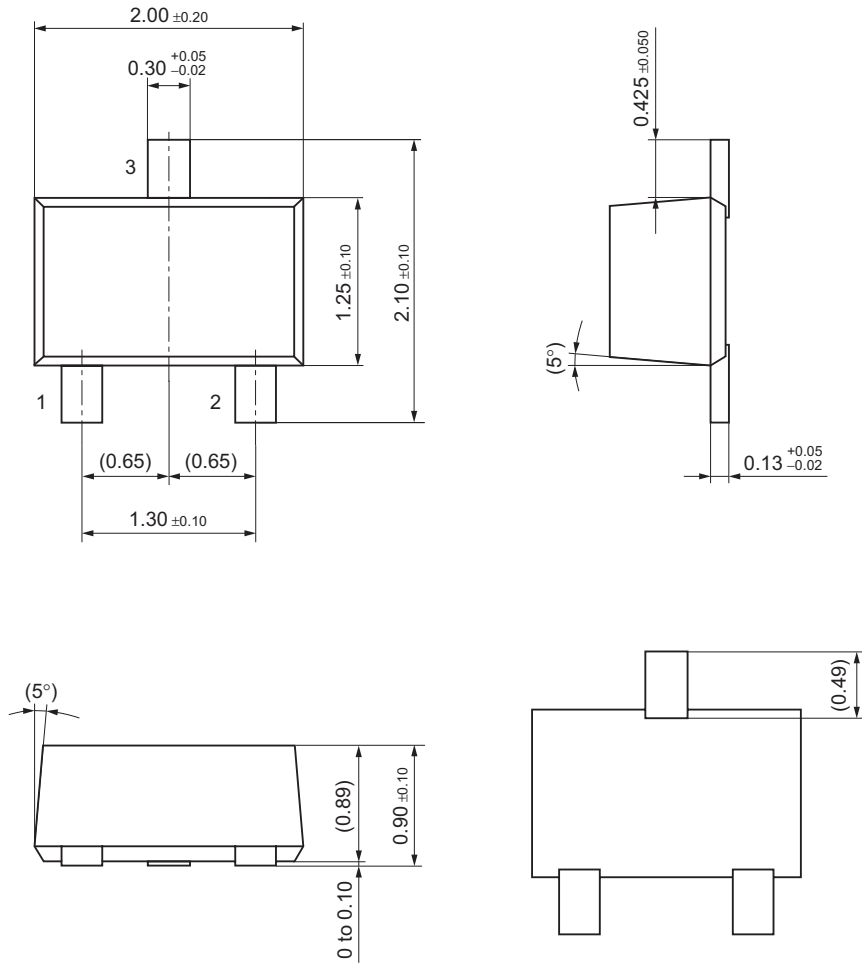
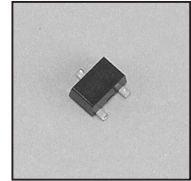
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---------------|--|-----|-----|------|------|
| Collector-base voltage (Emitter open) | V_{CBO} | $I_C = -10 \mu\text{A}$, $I_E = 0$ | -20 | | | V |
| Collector-emitter voltage (Base open) | V_{CEO} | $I_C = -1 \text{ mA}$, $I_B = 0$ | -20 | | | V |
| Emitter-base voltage (Collector open) | V_{EBO} | $I_E = -10 \mu\text{A}$, $I_C = 0$ | -5 | | | V |
| Forward current transfer ratio | h_{FE} | $V_{CE} = -2 \text{ V}$, $I_C = -100 \text{ mA}$ | 160 | | 560 | — |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -200 \text{ mA}$, $I_B = -10 \text{ mA}$ | | -40 | -100 | mV |
| Transition frequency | f_T | $V_{CB} = -10 \text{ V}$, $I_E = 10 \text{ mA}$, $f = 200 \text{ MHz}$ | | 170 | | MHz |
| Collector output capacitance (Common base, input open circuited) | C_{ob} | $V_{CB} = -10 \text{ V}$, $I_E = 0$, $f = 1 \text{ MHz}$ | | 20 | 30 | pF |

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.



SMini3-F2

Unit: mm



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