

N0801R

R07DS0728EJ0100

Rev.1.00

PNP SILICON EPITAXIAL TRANSISTOR

Mar 30, 2012

FEATURES

- Complements to N0801S.
- $V_{CE0} = -80$ V
- $I_{C(DC)} = -1.0$ A
- Miniature package SOT-23F (2SB804: Package variation of 3pPoMM)

PRODUCT LINEUP

| Part Number | Packing | Package Name | Package Code | Mass [TYP.] |
|--------------|-----------------|--------------|--------------|-------------|
| N0801R-T1-AT | Tape 3000p/reel | SOT-23F | PVSF0003ZA-A | 0.0126g |

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Ratings | Unit |
|------------------------------|----------------|-------------|------------------|
| Collector to Base Voltage | V_{CBO} | -100 | V |
| Collector to Emitter Voltage | V_{CEO} | -80 | V |
| Emitter to Base Voltage | V_{EBO} | -5.0 | V |
| Collector Current (DC) | $I_{C(DC)}$ | -1.0 | A |
| Collector Current (pulse) *1 | $I_{C(pulse)}$ | -1.5 | A |
| Total Power Dissipation | P_{T1} | 0.2 | W |
| Total Power Dissipation *2 | P_{T2} | 1.0 | W |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

 Note *1. $PW \leq 10$ ms, Duty Cycle $\leq 50\%$

 *2. FR-4 board size $2500\text{ mm}^2 \times 1.6\text{ mm}$, $t \leq 5$ sec

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

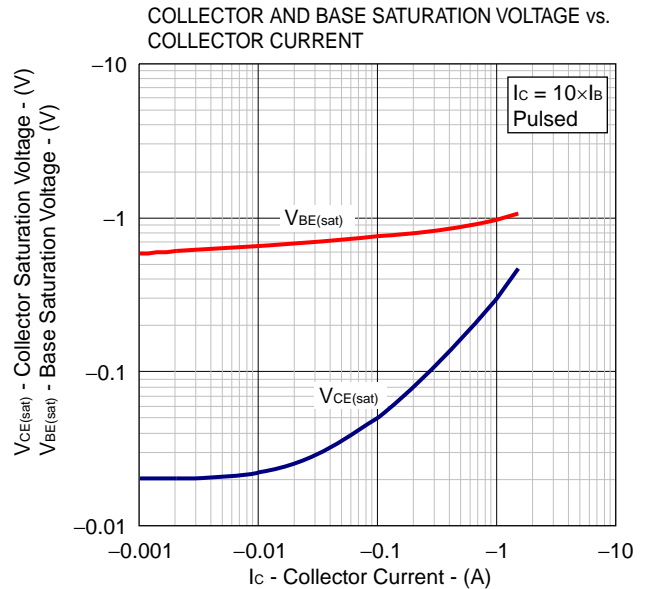
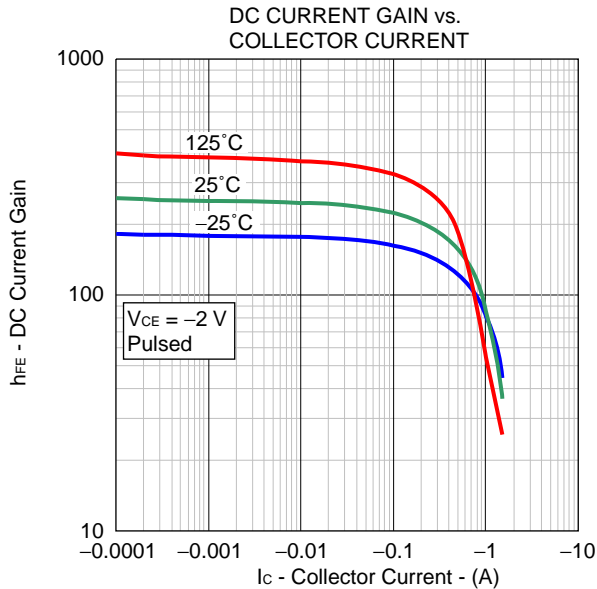
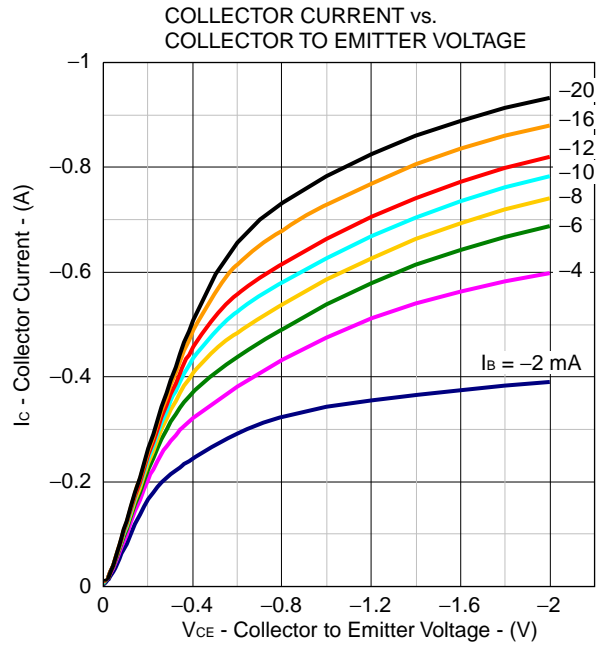
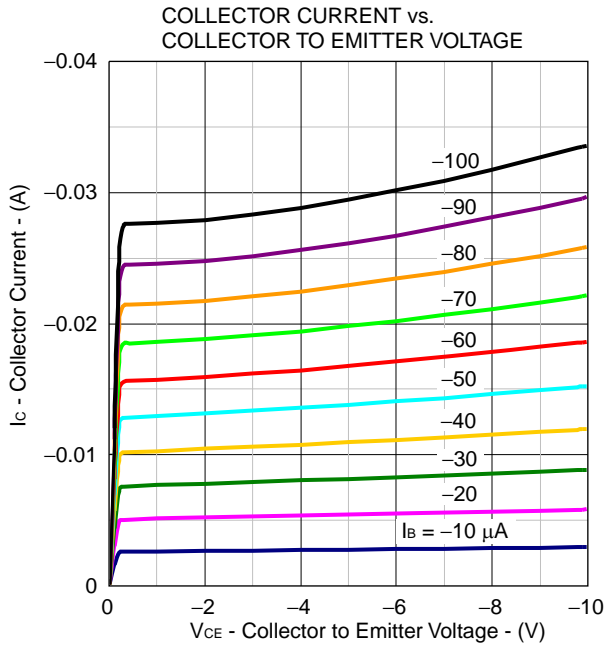
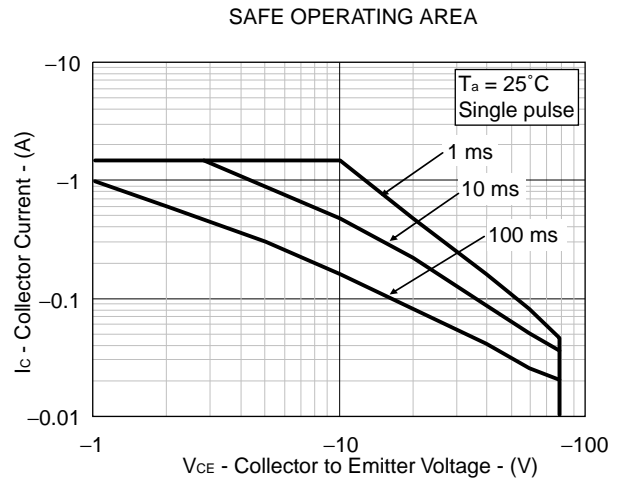
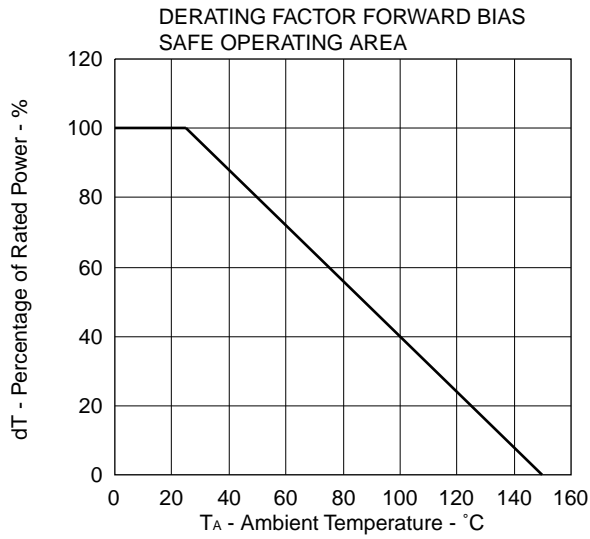
| Parameter | Symbol | Condition | MIN. | TYP. | MAX. | Unit |
|------------------------------|--------------------|--|------|-------|------|------|
| Collector Cutoff Current | I_{CBO} | $V_{CB} = -100\text{ V}$, $I_E = 0$ | | | -100 | nA |
| Emitter Cutoff Current | I_{EBO} | $V_{EB} = -5.0\text{ V}$, $I_C = 0$ | | | -100 | nA |
| DC Current Gain | h_{FE1}^{*1} | $V_{CE} = -2.0\text{ V}$, $I_C = -100\text{ mA}$ | 90 | 160 | 400 | |
| DC Current Gain | h_{FE2}^{*1} | $V_{CE} = -2.0\text{ V}$, $I_C = -500\text{ mA}$ | 25 | 65 | | |
| Collector Saturation Voltage | $V_{CE(sat)}^{*1}$ | $I_C = -500\text{ mA}$, $I_B = -50\text{ mA}$ | | -0.29 | -0.5 | V |
| Base Saturation Voltage | $V_{BE(sat)}^{*1}$ | $I_C = -500\text{ mA}$, $I_B = -50\text{ mA}$ | | -0.9 | -1.5 | V |
| Base to Emitter Voltage | V_{BE}^{*1} | $V_{CE} = -10\text{ V}$, $I_C = -10\text{ mA}$ | -600 | -640 | -700 | mV |
| Gain Bandwidth Product | f_T | $V_{CE} = -5.0\text{ V}$, $I_E = 10\text{ mA}$ | | 80 | | MHz |
| Output Capacitance | C_{ob} | $V_{CB} = -10\text{ V}$, $I_E = 0$, $f = 1.0\text{ MHz}$ | | 16 | | pF |

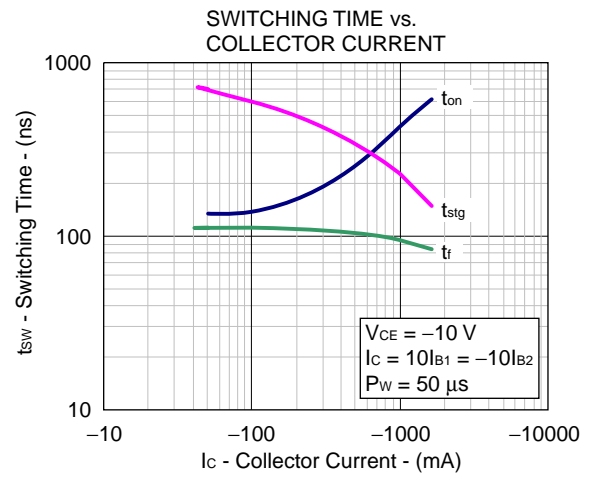
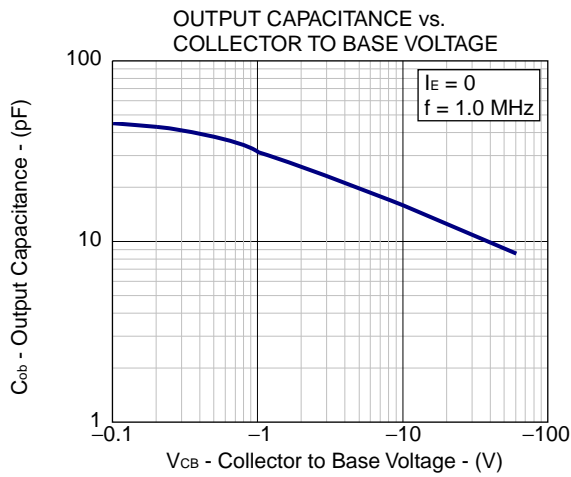
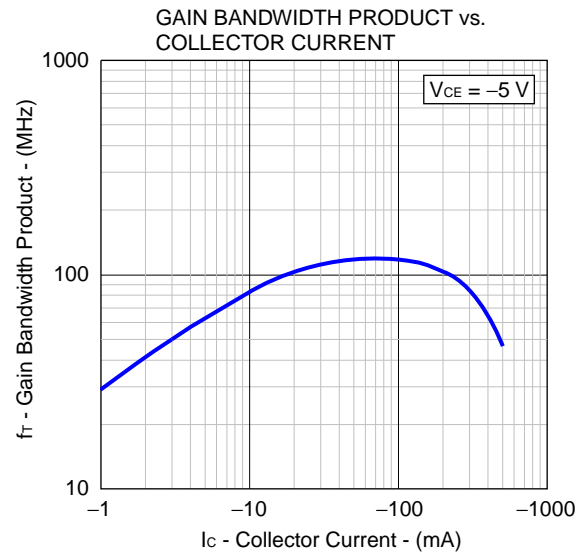
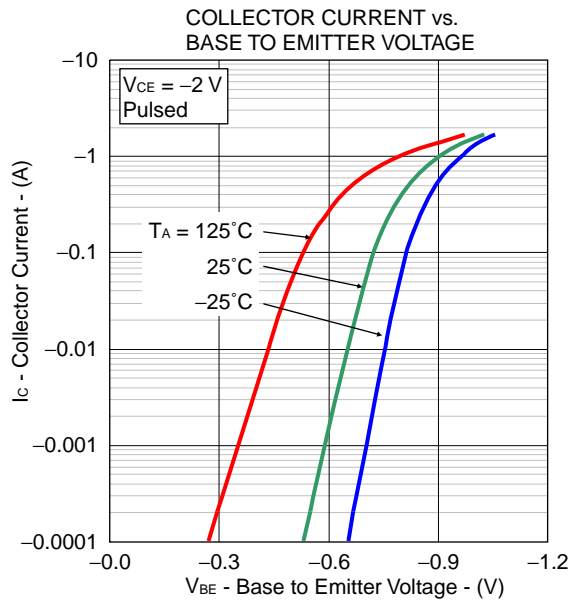
Note *1. Pulsed

h_{FE} Classification

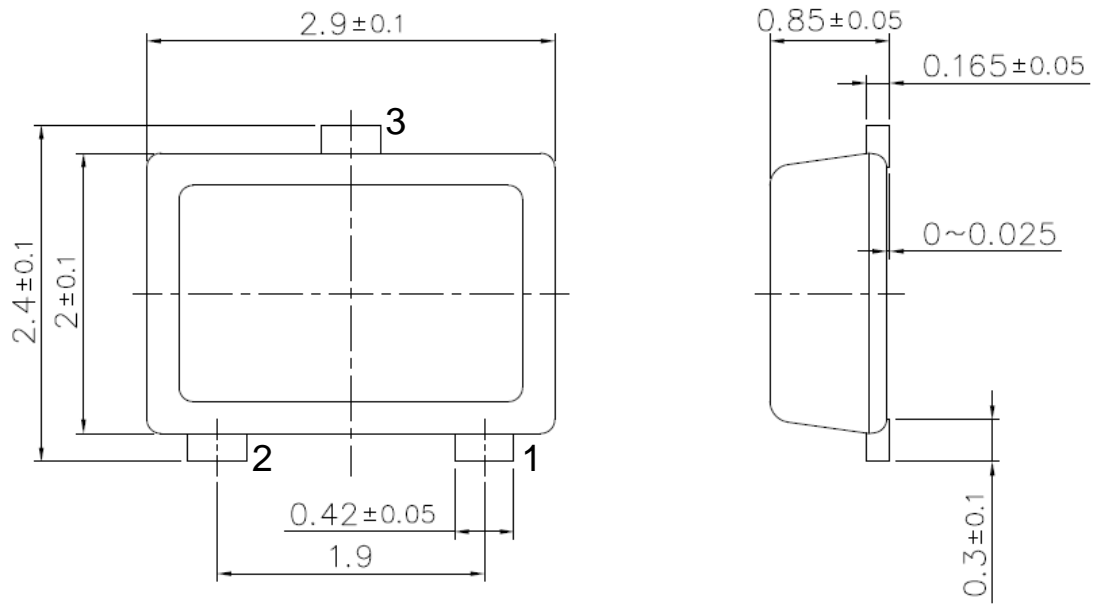
| Marking | AW | AV | AU |
|-----------|-----------|------------|------------|
| h_{FE1} | 90 to 180 | 135 to 270 | 200 to 400 |

TYPICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)





PACKAGE DRAWING (Unit: mm)



- 1: Emitter
- 2: Base
- 3: Collector

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