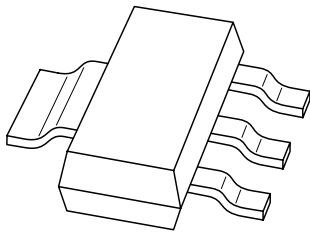


DATA SHEET



PZTA92 PNP high-voltage transistor

Product specification
Supersedes data of 1997 May 22

1999 Apr 14

PNP high-voltage transistor

PZTA92

FEATURES

- Low current (max. 100 mA)
- High voltage (max. 300 V).

APPLICATIONS

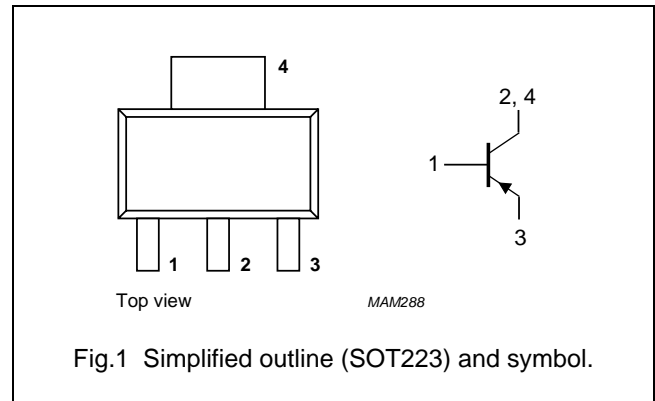
- Video equipment
- Telephony
- Professional communication equipment.

DESCRIPTION

PNP high-voltage transistor in a SOT223 plastic package.
NPN complement: PZTA42.

PINNING

| PIN | DESCRIPTION |
|------|-------------|
| 1 | base |
| 2, 4 | collector |
| 3 | emitter |



LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 134).

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|-----------|-------------------------------|--|------|------|------------------|
| V_{CBO} | collector-base voltage | open emitter | – | –300 | V |
| V_{CEO} | collector-emitter voltage | open base | – | –300 | V |
| V_{EBO} | emitter-base voltage | open collector | – | –5 | V |
| I_C | collector current (DC) | | – | –100 | mA |
| I_{CM} | peak collector current | | – | –200 | mA |
| I_{BM} | peak base current | | – | –100 | mA |
| P_{tot} | total power dissipation | $T_{amb} \leq 25\text{ }^\circ\text{C}$; note 1 | – | 1.2 | W |
| T_{stg} | storage temperature | | –65 | +150 | $^\circ\text{C}$ |
| T_j | junction temperature | | – | 150 | $^\circ\text{C}$ |
| T_{amb} | operating ambient temperature | | –65 | +150 | $^\circ\text{C}$ |

Note

1. Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm². For other mounting conditions, see “*Thermal considerations for SOT223 in the General Part of associated Handbook*”.

PNP high-voltage transistor

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THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | CONDITIONS | VALUE | UNIT |
|---------------|---|------------|-------|------|
| $R_{th\ j-a}$ | thermal resistance from junction to ambient | note 1 | 104 | K/W |
| $R_{th\ j-s}$ | thermal resistance from junction to soldering point | | 23 | K/W |

Note

1. Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm². For other mounting conditions, see "Thermal considerations for SOT223 in the General Part of associated Handbook".

CHARACTERISTICS

$T_{amb} = 25\text{ °C}$ unless otherwise specified.

| SYMBOL | PARAMETER | CONDITIONS | MIN. | MAX. | UNIT |
|-------------|--------------------------------------|--|------|------|------|
| I_{CBO} | collector cut-off current | $I_E = 0; V_{CB} = -200\text{ V}$ | – | –20 | nA |
| I_{EBO} | emitter cut-off current | $I_C = 0; V_{BE} = -5\text{ V}$ | – | –100 | nA |
| h_{FE} | DC current gain | $I_C = -1\text{ mA}; V_{CE} = -10\text{ V}; \text{note 1}$ | 25 | – | |
| | | $I_C = -10\text{ mA}; V_{CE} = -10\text{ V}; \text{note 1}$ | 40 | – | |
| | | $I_C = -30\text{ mA}; V_{CE} = -10\text{ V}; \text{note 1}$ | 25 | – | |
| V_{CEsat} | collector-emitter saturation voltage | $I_C = -20\text{ mA}; I_B = -2\text{ mA}$ | – | –500 | mV |
| V_{BEsat} | base-emitter saturation voltage | $I_C = -20\text{ mA}; I_B = -2\text{ mA}$ | – | –900 | mV |
| C_c | collector capacitance | $I_E = 0; V_{CB} = -20\text{ V}; f = 1\text{ MHz}$ | – | 6 | pF |
| f_T | transition frequency | $I_C = -10\text{ mA}; V_{CE} = -20\text{ V}; f = 100\text{ MHz}$ | 50 | – | MHz |

Note

1. Pulse test: $t_p \leq 300\text{ }\mu\text{s}$; $\delta \leq 0.02$.

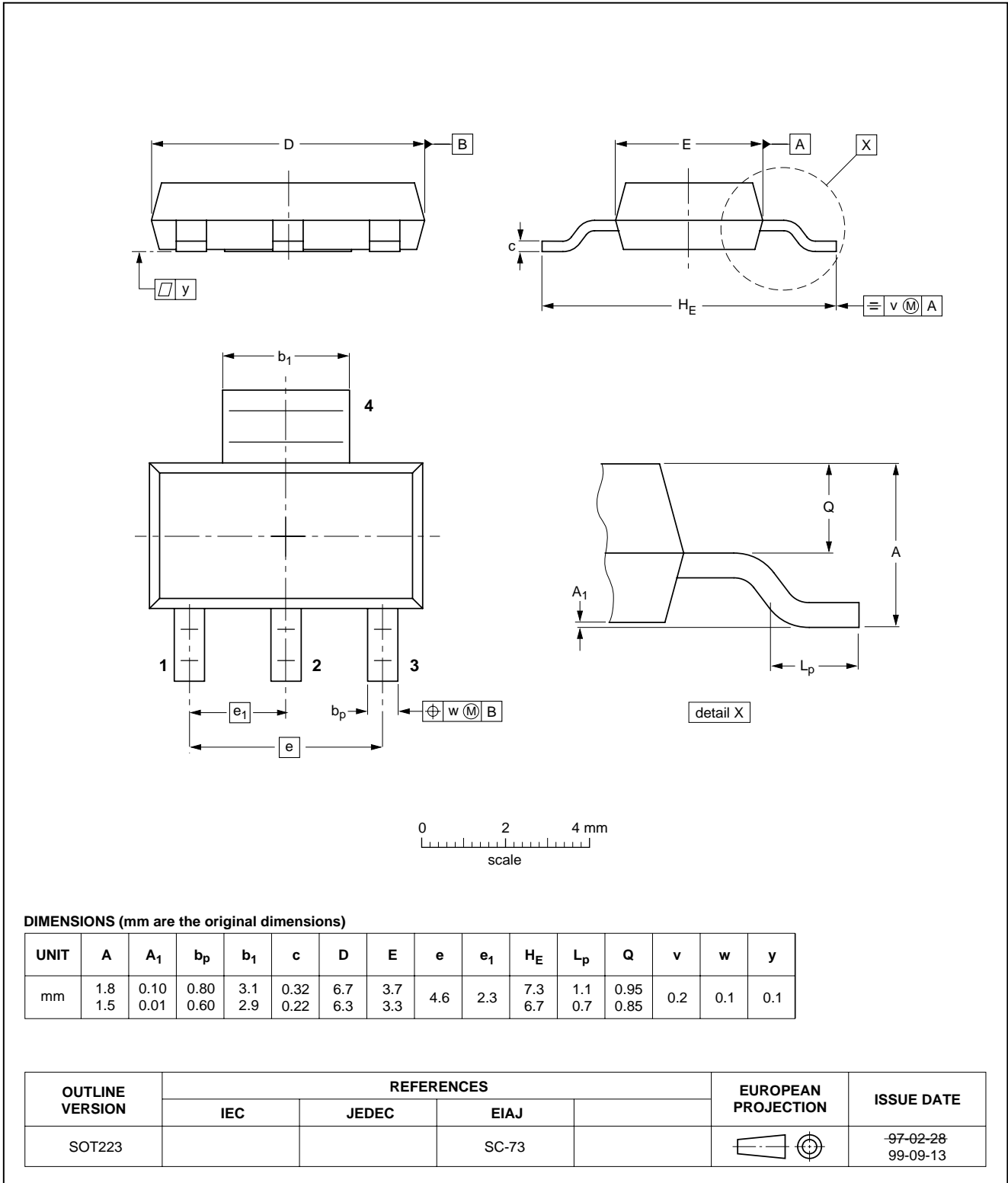
PNP high-voltage transistor

PZTA92

PACKAGE OUTLINE

Plastic surface mounted package; collector pad for good heat transfer; 4 leads

SOT223



PNP high-voltage transistor

PZTA92

DATA SHEET STATUS

| DOCUMENT STATUS ⁽¹⁾ | PRODUCT STATUS ⁽²⁾ | DEFINITION |
|--------------------------------|-------------------------------|---|
| Objective data sheet | Development | This document contains data from the objective specification for product development. |
| Preliminary data sheet | Qualification | This document contains data from the preliminary specification. |
| Product data sheet | Production | This document contains the product specification. |

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Contact information

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