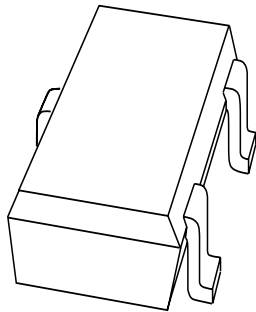


# DATA SHEET



## **PMSTA92** PNP high-voltage transistor

Product data sheet  
Supersedes data of 1999 Jun 01

2001 Feb 20

# PNP high-voltage transistor

# PMSTA92

### FEATURES

- S-mini package
- High voltage.

### APPLICATIONS

- Primarily intended for use in telephony and professional communication equipment.

### DESCRIPTION

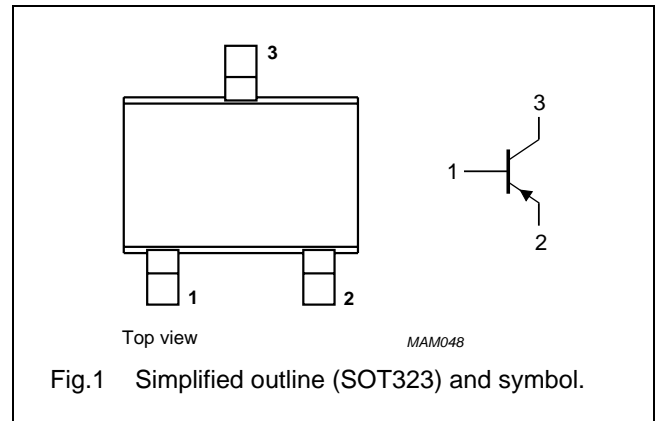
PNP transistor in a microminiature (SMD) plastic package intended for surface mounted applications.

### MARKING

TYPE NUMBER	MARKING CODE
PMSTA92	tD2

### PINNING

PIN	DESCRIPTION
1	base
2	emitter
3	collector



### LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{CB0}$	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	$T_{amb} \leq 25\text{ °C}$ ; note 1	–	200	mW
$T_{stg}$	storage temperature		–65	+150	°C
$T_j$	junction temperature		–	150	°C
$T_{amb}$	operating ambient temperature		–65	+150	°C

### Note

1. Refer to SOT323 (SC-70) standard mounting conditions.

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$R_{th\ j-a}$	thermal resistance from junction to ambient	in free air; note 1	625	K/W

### Note

1. Refer to SOT323 (SC-70) standard mounting conditions.

## PNP high-voltage transistor

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**CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN.	TYP.	MAX.	UNIT
$I_{CBO}$	collector cut-off current	$V_{CB} = -200\text{ V}$ ; $I_E = 0$	–	–	–100	nA
$I_{EBO}$	emitter cut-off current	$V_{BE} = -3\text{ V}$ ; $I_C = 0$	–	–	–100	nA
$h_{FE}$	DC current gain	$I_C = -1\text{ mA}$ ; $V_{CE} = -10\text{ V}$	40	–	–	
		$I_C = -10\text{ mA}$ ; $V_{CE} = -10\text{ V}$	40	–	–	
		$I_C = -30\text{ mA}$ ; $V_{CE} = -10\text{ V}$	30	–	–	
$V_{CEsat}$	saturation voltage	$I_C = -20\text{ mA}$ ; $I_B = -2\text{ mA}$ ; note 1	–	–	–250	mV
$V_{BEsat}$	saturation voltage	$I_C = -20\text{ mA}$ ; $I_B = -2\text{ mA}$ ; note 1	–	–	–900	mV
$C_c$	collector-base capacitance	$V_{CB} = -20\text{ V}$ ; $I_E = i_e = 0$ ; $f = 1\text{ MHz}$	–	1.9	3.5	pF
$C_e$	emitter-base capacitance	$V_{EB} = -5\text{ V}$ ; $I_C = i_c = 0$ ; $f = 1\text{ MHz}$	–	20	–	pF
$f_T$	transition frequency	$V_{CE} = -20\text{ V}$ ; $I_C = -10\text{ mA}$ ; $f = 100\text{ MHz}$	50	–	–	MHz

**Note**

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

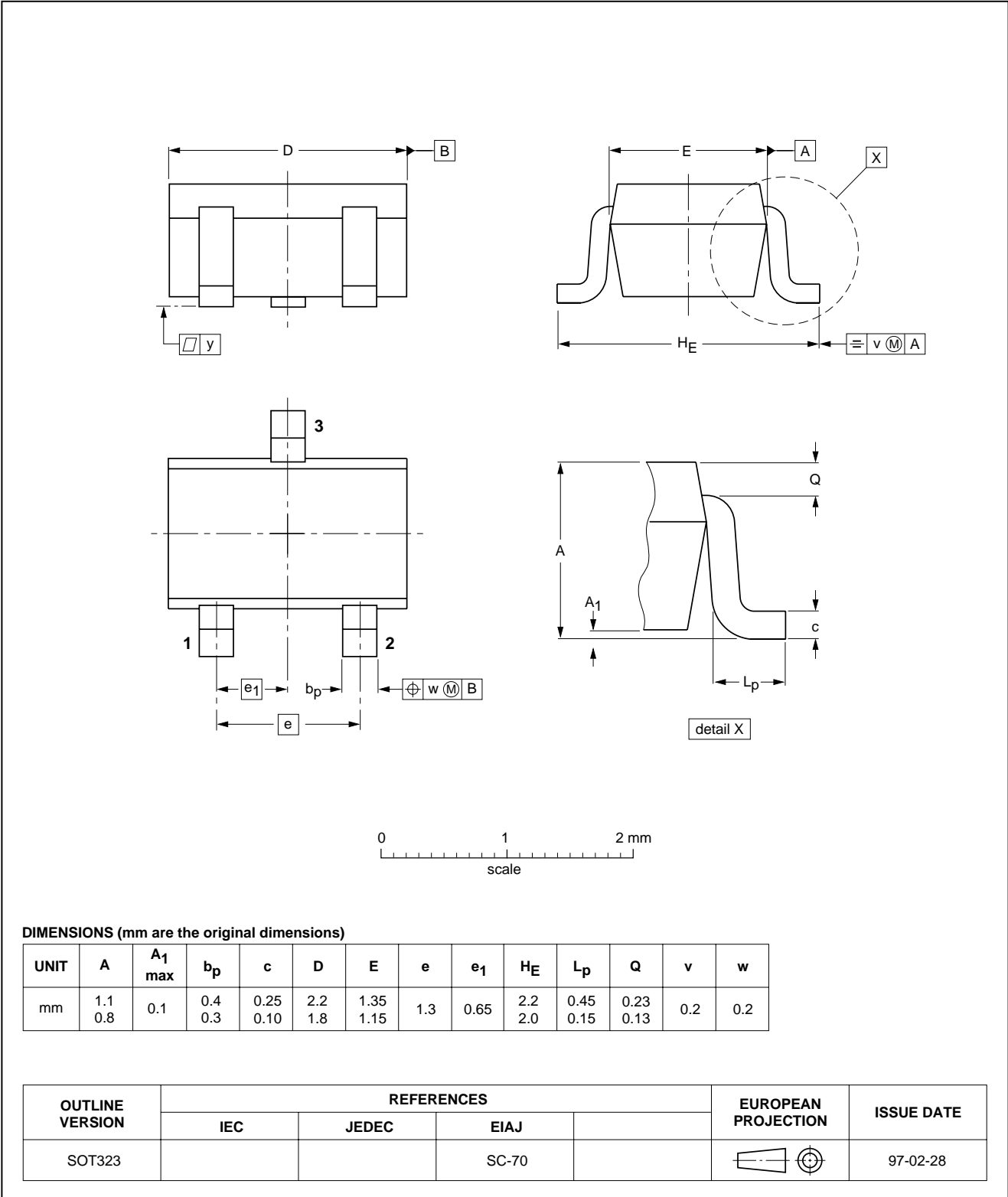
PNP high-voltage transistor

PMSTA92

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT323



## PNP high-voltage transistor

## PMSTA92

## DATA SHEET STATUS

DOCUMENT STATUS <sup>(1)</sup>	PRODUCT STATUS <sup>(2)</sup>	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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