

**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

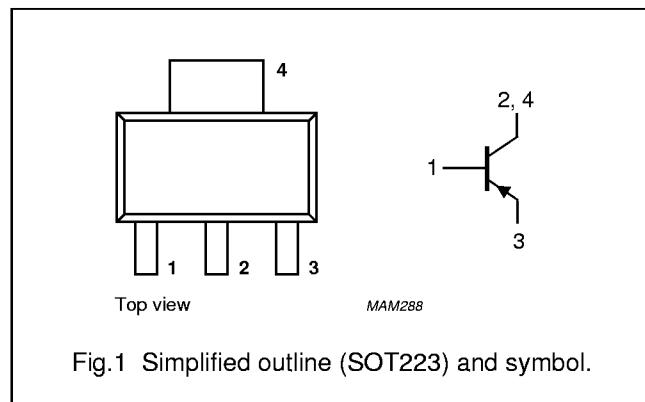


Fig.1 Simplified outline (SOT223) and symbol.

**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	$T_{amb} \leq 25^\circ\text{C}$ ; note 1	—	1.2	W
$T_{stg}$	storage temperature		-65	+150	°C
$T_j$	junction temperature		—	150	°C
$T_{amb}$	operating ambient temperature		-65	+150	°C

**Note**

1. Device mounted on a printed-circuit board, single-sided copper, tinplated, mounting pad for collector 1 cm<sup>2</sup>.  
For other mounting conditions, see "Thermal considerations for SOT223 in the General Part of associated Handbook".

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**THERMAL CHARACTERISTICS**

<b>SYMBOL</b>	<b>PARAMETER</b>	<b>CONDITIONS</b>	<b>VALUE</b>	<b>UNIT</b>
$R_{th\ j-a}$	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 cm<sup>2</sup>.  
For other mounting conditions, see "Thermal considerations for SOT223 in the General Part of associated Handbook".

**CHARACTERISTICS** $T_{amb} = 25^\circ C$  unless otherwise specified.

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

**Note**

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

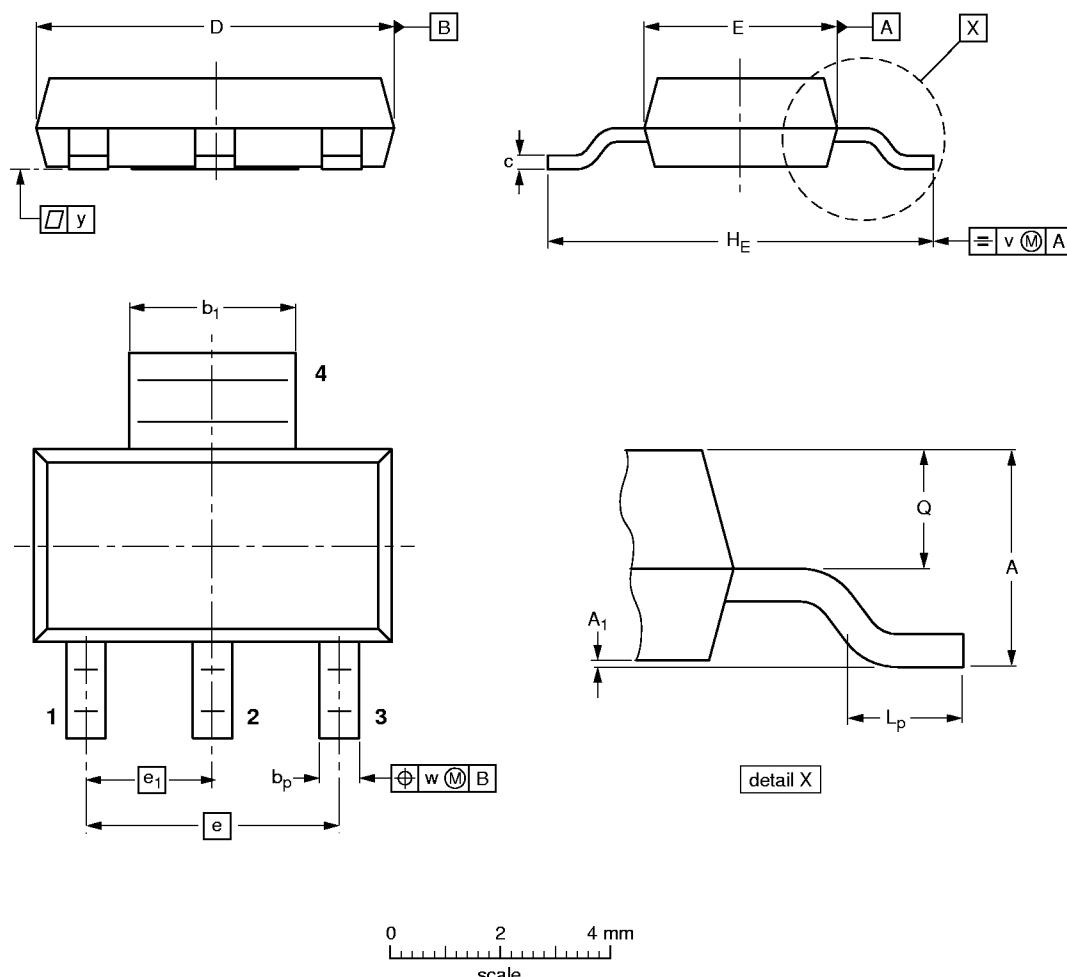
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## PACKAGE OUTLINE

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

SOT223



## DIMENSIONS (mm are the original dimensions)

UNIT	A	A <sub>1</sub>	b <sub>p</sub>	b <sub>1</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	Q	v	w	y
mm	1.8	0.10	0.80	3.1	0.32	6.7	3.7	4.6	2.3	7.3	1.1	0.95	0.2	0.1	0.1
	1.5	0.01	0.60	2.9	0.22	6.3	3.3			6.7	0.7	0.85			

OUTLINE VERSION	REFERENCES				EUROPEAN PROJECTION	ISSUE DATE
	IEC	JEDEC	EIAJ			
SOT223						96-11-11 97-02-28