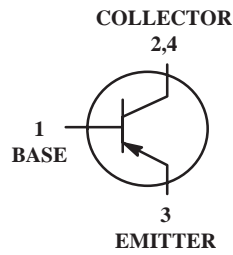
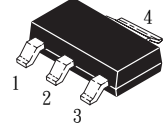


### High-Voltage PNP Transistor Surface Mount

 Lead(Pb)-Free



1.BASE  
2.COLLECTOR  
3.EMITTER  
4.COLLECTOR



**SOT-223**

### Maximum Ratings

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	-400	V <sub>dc</sub>
Collector-Base Voltage	V <sub>CBO</sub>	-400	V <sub>dc</sub>
Emitter-Base Voltage	V <sub>EBO</sub>	-6.0	V <sub>dc</sub>
Collector Current-Continuous	I <sub>C</sub>	-300	mA <sub>dc</sub>
Total Device Dissipation	P <sub>D</sub>	2.0	W
Junction and Storage, Temperature	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C

### Device Marking

PZTA94 = A94, 4Z

### Electrical Characteristics (T<sub>A</sub>=25°C Unless Otherwise noted)

Characteristics	Symbol	Min	Max	Unit
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### Off Characteristics

Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1.0mA <sub>dc</sub> , I <sub>B</sub> =0)	V <sub>(BR)CEO</sub>	-400	-	V <sub>dc</sub>
Collector-Base Breakdown Voltage (I <sub>C</sub> =-100 μA <sub>dc</sub> , I <sub>E</sub> =0)	V <sub>(BR)CBO</sub>	-400	-	V <sub>dc</sub>
Emitter-Base Breakdown Voltage (I <sub>E</sub> =-100 μA <sub>dc</sub> , I <sub>C</sub> =0)	V <sub>(BR)EBO</sub>	-6.0	-	V <sub>dc</sub>
Collect Cutoff Current (V <sub>CB</sub> = -400V <sub>dc</sub> , I <sub>E</sub> =0)	I <sub>CBO</sub>	-	-100	nA <sub>dc</sub>
Emitte Cutoff Current (V <sub>EB</sub> =-6V, I <sub>C</sub> =0)	I <sub>EBO</sub>	-	-100	nA <sub>dc</sub>

## Electrical Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Max	Unit
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### On Characteristics<sup>1</sup>

DC Current Gain ( $I_C = -1.0\text{ mAdc}$ , $V_{CE} = -10\text{ Vdc}$ )	$H_{FE(1)}$	40	-	-
( $I_C = -10\text{ mAdc}$ , $V_{CE} = -10\text{ Vdc}$ )	$H_{FE(2)}$	50	300	-
( $I_C = -50\text{ mAdc}$ , $V_{CE} = -10\text{ Vdc}$ )	$H_{FE(3)}$	45	-	-
( $I_C = -100\text{ mAdc}$ , $V_{CE} = -10\text{ Vdc}$ )	$H_{FE(4)}$	20	-	-
Collector-Emitter Saturation Voltage ( $I_C = -1.0\text{ mAdc}$ , $I_B = -0.1\text{ mAdc}$ )	$V_{CE(sat)}$	-	0.35	Vdc
( $I_C = -10\text{ mAdc}$ , $I_B = -1.0\text{ mAdc}$ )			0.50	
( $I_C = -50\text{ mAdc}$ , $I_B = -5.0\text{ mAdc}$ )			0.75	
Base-Emitter Saturation Voltage ( $I_C = -10\text{ mAdc}$ , $I_B = -1.0\text{ mAdc}$ )	$V_{BE(sat)}$	-	0.75	Vdc

Note: 1. Pulse Test : Pulse Width  $\leq 380\mu\text{s}$ , Duty Cycle  $\leq 2\%$ .

## Characteristics Curve

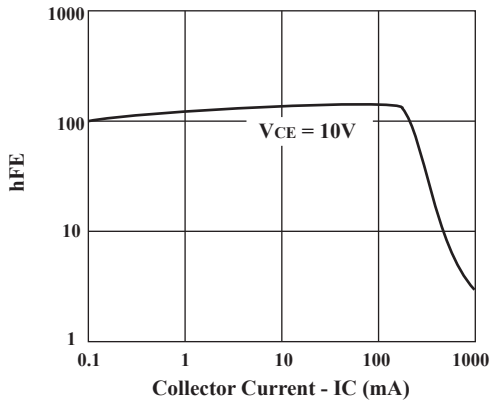


Fig.1 Current Gain & Collector Current

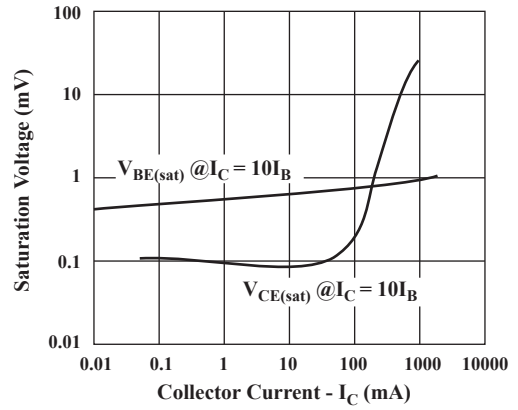


Fig.2 Saturation Voltage & Collector Current

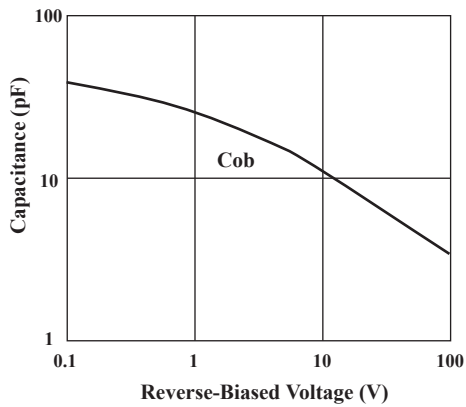
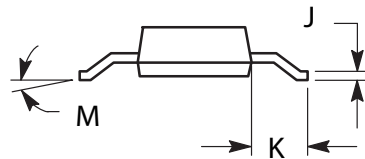
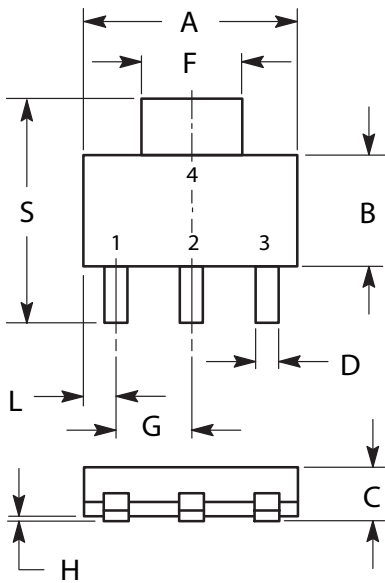


Fig.3 Capacitance & Reverse-Biased Voltage

**SOT-223 Outline Dimensions**

unit:mm



DIM	MILLIMETERS	
	MIN	MAX
A	6.30	6.70
B	3.30	3.70
C	1.50	1.75
D	0.60	0.89
F	2.90	3.20
G	2.20	2.40
H	0.020	0.100
J	0.24	0.35
K	1.50	2.00
L	0.85	1.05
M	0°	10°
S	6.70	7.30