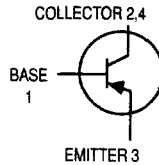


# High Voltage Transistor

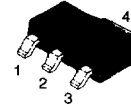
## PNP Silicon



# PZTA96T1

Motorola Preferred Device

**SOT-223 PACKAGE**  
**PNP SILICON**  
**HIGH VOLTAGE TRANSISTOR**  
**SURFACE MOUNT**



**CASE 318E-04, STYLE 1**  
**TO-261AA**

### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CEO}$	-450	Vdc
Collector-Base Voltage	$V_{CBO}$	-450	Vdc
Emitter-Base Voltage	$V_{EBO}$	-5.0	Vdc
Collector Current	$I_C$	-500	mAdc
Total Power Dissipation up to $T_A = 25^\circ\text{C}^{(1)}$	$P_D$	1.5	Watts
Storage Temperature Range	$T_{stg}$	-65 to +150	$^\circ\text{C}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$

### DEVICE MARKING

ZTA96

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance from Junction to Ambient <sup>(1)</sup>	$R_{\theta JA}$	83.3	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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### OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ( $I_C = -1.0$ mAdc, $I_B = 0$ )	$V_{(BR)CEO}$	-450	—	Vdc
Collector-Emitter Breakdown Voltage ( $I_C = -100$ $\mu\text{Adc}$ , $I_E = 0$ )	$V_{(BR)CBO}$	-450	—	Vdc
Emitter-Base Breakdown Voltage ( $I_E = -10$ $\mu\text{Adc}$ , $I_C = 0$ )	$V_{(BR)EBO}$	-5.0	—	Vdc
Collector-Base Cutoff Current ( $V_{CB} = -400$ Vdc, $I_E = 0$ )	$I_{CBO}$	—	-0.1	$\mu\text{Adc}$
Emitter-Base Cutoff Current ( $V_{BE} = -4.0$ Vdc, $I_C = 0$ )	$I_{EBO}$	—	-0.1	$\mu\text{Adc}$

### ON CHARACTERISTICS

DC Current Gain <sup>(2)</sup> ( $I_C = -10$ mAdc, $V_{CE} = -10$ Vdc)	$h_{FE}$	50	150	—
Saturation Voltages ( $I_C = -20$ mAdc, $I_B = -2.0$ mAdc) ( $I_C = -20$ mAdc, $I_B = -2.0$ mAdc)	$V_{CE(sat)}$ $V_{BE(sat)}$	—	-0.6 -1.0	Vdc

- Device mounted on a glass epoxy printed circuit board 1.575 in. x 1.575 in. x 0.059 in.; mounting pad for the collector lead min. 0.93 in<sup>2</sup>.
- Pulse Test: Pulse Width  $\leq 300$   $\mu\text{s}$ ; Duty Cycle = 2.0%.

Preferred devices are Motorola recommended choices for future use and best overall value.