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[Fairchild Semiconductor](#)  
[ZTX749A](#)

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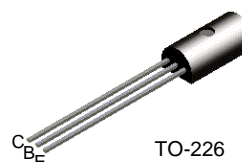
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



## ZTX749A

### PNP Low Saturation Transistor

- This device are designed with high current gain and low saturation voltage with collector currents up to 2A continuous.



### Absolute Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	-35	V
$V_{CBO}$	Collector-Base Voltage	-45	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current - Continuous	-2	A
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	-55 ~ +150	$^\circ\text{C}$

\* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

#### NOTES:

- These ratings are based on a maximum junction temperature of  $150^\circ\text{C}$ .
- These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
<b>Off Characteristics</b>					
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}$	-35		V
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -100\mu\text{A}$	-45		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -100\mu\text{A}$	-5		V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -30\text{V}$ $V_{CB} = -30\text{V}, T_A = 100^\circ\text{C}$		-100 -10	nA $\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -4\text{V}$		-100	nA
<b>On Characteristics*</b>					
$h_{FE}$	DC Current Gain	$I_C = -50\text{mA}, V_{CE} = -2\text{V}$ $I_C = -1\text{A}, V_{CE} = -2\text{V}$ $I_C = -2\text{A}, V_{CE} = -2\text{V}$ $I_C = -6\text{A}, V_{CE} = -2\text{V}$	70 100 75 15	300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -100\text{mA}$ $I_C = -2\text{A}, I_B = -200\text{mA}$		-300 -500	mV
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -1\text{A}, I_B = -100\text{mA}$		-1.25	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -1\text{A}, V_{CE} = -2\text{V}$		-1	V
<b>Small-Signal Characteristics</b>					
$C_{obo}$	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		100	PF
$f_T$	Transition Frequency	$I_C = -100\text{mA}, V_{CE} = -5\text{V}$ $f = 100\text{MHz}$	100		

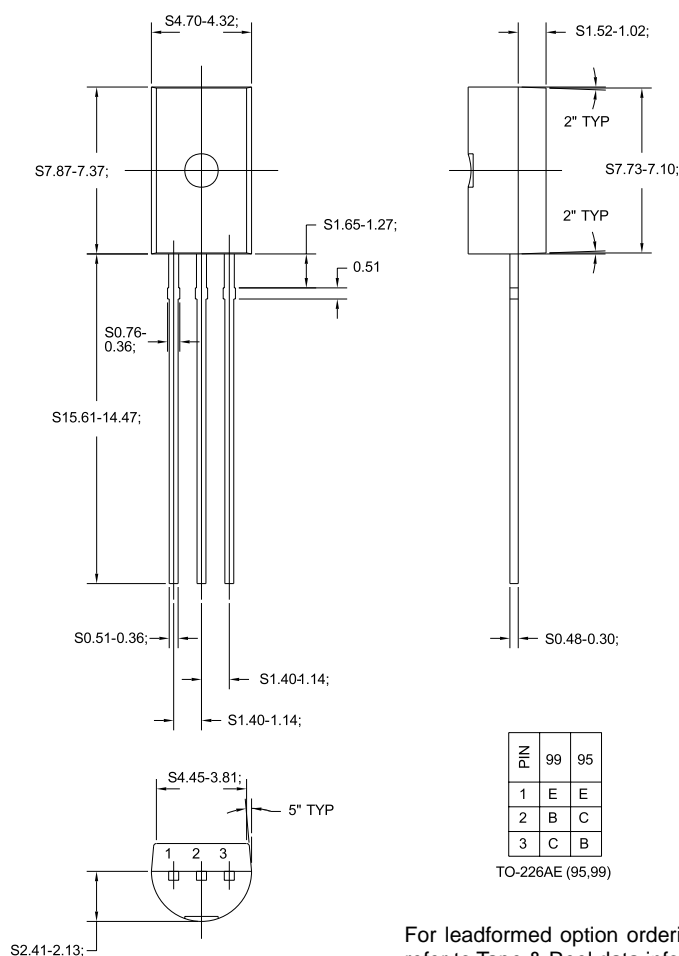
\* Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

### Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
$P_D$	Total Device Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	125	$^\circ\text{C/W}$

## Package Dimensions

### TO-226



For leadformed option ordering,  
refer to Tape & Reel data information.

Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET®	SuperSOT™-8
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EnSigna™	I <sup>2</sup> C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Datasheet Identification	Product Status	Definition
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