



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°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
Off Characteristics					
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 μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}$		-100	nA
On Characteristics*					
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
Small-Signal Characteristics					
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		

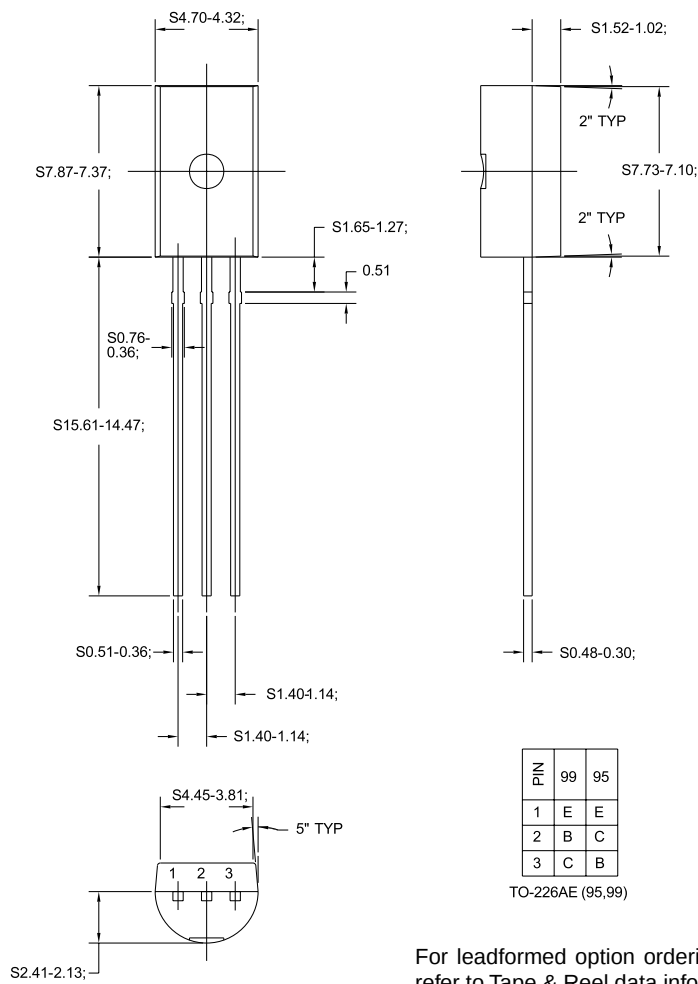
* Pulse Test: Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

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



Dimensions in Millimeters

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