



ZTX796A

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$)

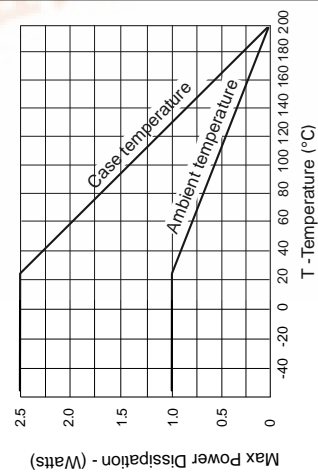
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Transition Frequency	f_T	100			MHz	$I_C=50mA, V_{CE}=5V, f=50MHz$
Input Capacitance	C_{ibo}		225		pF	$V_{EB}=-0.5V, f=1MHz$
Output Capacitance	C_{obo}		12		pF	$V_{CB}=-10V, f=1MHz$
Switching Times	t_{on}		100		ns	$I_C=100mA, I_B=10mA$
	t_{off}		3200		ns	$I_B=-10mA, V_{CC}=-50V$

Measured under pulsed conditions. Pulse width=300us. Duty cycle $\leq 2\%$

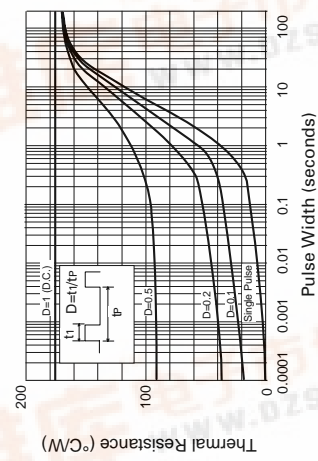
HERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance: Junction to Ambient ₁	$R_{th(j-amb)1}$	175	$^{\circ}C/W$
Junction to Ambient ₂	$R_{th(j-amb)2}$	116	$^{\circ}C/W$
Junction to Case	$R_{th(j-case)}$	70	$^{\circ}C/W$

Device mounted on P.C.B. with copper equal to 1 sq. Inch minimum.



Derating curve



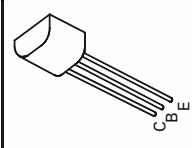
Maximum transient thermal impedance

PNP SILICON PLANAR MEDIUM POWER HIGH GAIN TRANSISTOR

ISSUE 1 - APRIL 94

FEATURES

- * 200 Volt V_{CEO}
- * Gain of 250 at $I_C=0.3$ Amps
- * Very low saturation voltage



E-Line
TO92 Compatible

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查询ZTX796A供应商

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	-200	V
Collector-Emitter Voltage	V_{CEO}	-200	V
Emitter-Base Voltage	V_{EBO}	-5	V
Peak Pulse Current	I_{CM}	-1	A
Continuous Collector Current	I_C	-0.5	A
Practical Power Dissipation*	P_{totp}	1.5	W
Power Dissipation at $T_{amb}=25^{\circ}C$ derate above $25^{\circ}C$	P_{tot}	1	W
	T_j, T_{stg}	5.7	$mW/^{\circ}C$
Operating and Storage Temperature Range		-55 to +200	$^{\circ}C$

*The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 1 inch square minimum

ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^{\circ}C$)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-200			V	$I_C=100\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-200			V	$I_C=10mA^*$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E=100\mu A$
Collector Cut-Off Current	I_{CBO}		-0.1		μA	$V_{CB}=-150V$
Emitter Cut-Off Current	I_{EBO}		-0.1		μA	$V_{EB}=-4V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2		V	$I_C=50mA, I_B=2mA^*$
			-0.3		V	$I_C=100mA, I_B=5mA^*$
			-0.3		V	$I_C=200mA, I_B=20mA^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.95		V	$I_C=200mA, I_B=20mA^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.67		V	$I_C=200mA, V_{CE}=10V^*$
Static Forward Current Transfer Ratio	h_{FE}	300		800		$I_C=10mA, V_{CE}=10V^*$
		300				$I_C=100mA, V_{CE}=10V^*$
		250				$I_C=300mA, V_{CE}=10V^*$
		100				$I_C=400mA, V_{CE}=10V^*$

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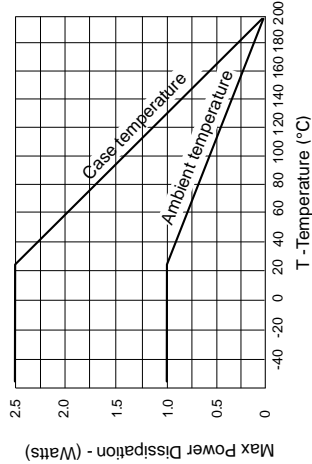
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Output Capacitance	C_{obo}		12		pF	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$
Switching Times	t_{on}		100		ns	$I_C=100\text{mA}$, $I_B=10\text{mA}$
	t_{off}		3200		ns	$I_B=10\text{mA}$, $V_{CC}=-50\text{V}$

Measured under pulsed conditions. Pulse width=300 μ s. Duty cycle $\leq 2\%$

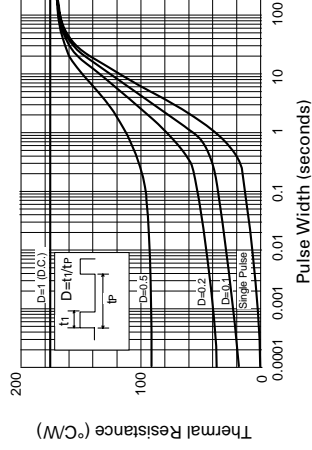
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Derating curve



Maximum transient thermal impedance

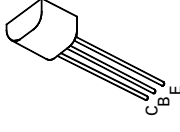
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Practical Power Dissipation*	P_{totp}	1.5	W
Power Dissipation at $T_{amb}=25^{\circ}\text{C}$ derate above 25°C	P_{tot}	1 5.7	W mW/ $^{\circ}\text{C}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 to +200	$^{\circ}\text{C}$

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Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5			V	$I_E=100\mu\text{A}$
Collector Cut-Off Current	I_{CBO}			-0.1	μA	$V_{CB}=-150\text{V}$
Emitter Cut-Off Current	I_{EBO}			-0.1	μA	$V_{EB}=-4\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$		-0.2		V	$I_C=50\text{mA}$, $I_B=2\text{mA}^*$
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			-0.3		V	$I_C=200\text{mA}$, $I_B=20\text{mA}^*$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$			-0.95	V	$I_C=200\text{mA}$, $I_B=20\text{mA}^*$
Base-Emitter Turn-On Voltage	$V_{BE(on)}$		-0.67		V	$I_C=200\text{mA}$, $V_{CE}=10\text{V}^*$
Static Forward Current Transfer Ratio	h_{FE}	300		800		$I_C=10\text{mA}$, $V_{CE}=10\text{V}^*$
		300				$I_C=100\text{mA}$, $V_{CE}=10\text{V}^*$
		250				$I_C=300\text{mA}$, $V_{CE}=10\text{V}^*$
		100				$I_C=400\text{mA}$, $V_{CE}=10\text{V}^*$

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