

ZTX795A

PNP SILICON PLANAR MEDIUM POWER
HIGH GAIN TRANSISTOR
ZTX795A

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°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}		15		pF	V _{CE} =10V, f=1MHz
Switching Times	t _{on} t _{off}		100 1900		ns	I _C =100mA, I _B =10mA I _{B2} =10mA, V _{CE} =50V

*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤2%

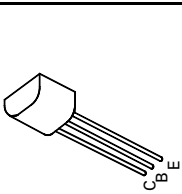
THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance Junction to Ambient ₁	R _{th(j-amb)1}	175	°C/W
Junction to Ambient ₂	R _{th(j-amb)2}	116	°C/W
Junction to Case	R _{th(j-case)}	70	°C/W

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

FEATURES

- * 140 Volt V_{CEO}
- * Gain of 250 at I_C=0.2 Amps
- * Very low saturation voltage



E-Line
TO92 Compatible

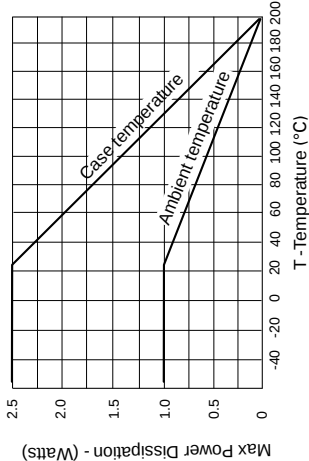
ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CBO}	-140	V
Collector-Emitter Voltage	V _{CEO}	-140	V
Emitter-Base Voltage	V _{EB0}	-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°C derate above 25°C	P _{tot}	1 5.7	W mW/°C
Operating and Storage Temperature Range	T _j , T _{sg}	-55 to +200	°C

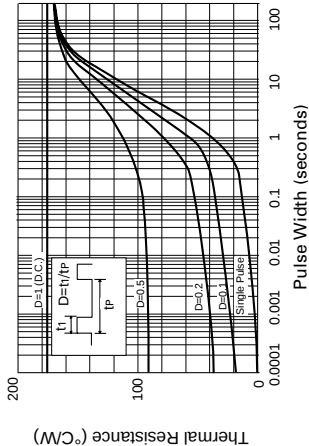
*The power which can be dissipated assuming the device is mounted in a typical manner on a P.C.B. with copper equal to 1 inch square minimum

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-140			V	I _C =100μA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-140			V	I _C =10mA*
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5			V	I _E =100μA
Collector Cut-Off Current	I _{CBO}			-0.1	μA	V _{CE} =100V
Emitter Cut-Off Current	I _{EBO}			-0.1	μA	V _{EB} =4V
Collector-Emitter Saturation Voltage	V _{CE(sat)}			-0.3 -0.3 -0.25	V V V	I _C =100mA, I _B =1mA* I _C =200mA, I _B =5mA* I _C =500mA, I _B =50mA*
Base-Emitter Saturation Voltage	V _{BE(sat)}			-0.95	V	I _C =500mA, I _B =50mA*
Base-Emitter Turn-On Voltage	V _{BE(on)}		-0.75		V	I _C =500mA, V _{CE} =2V*
Static Forward Current Transfer Ratio	h _{FE}	300 250 100		800		I _C =10mA, V _{CE} =2V* I _C =200mA, V _{CE} =2V* I _C =300mA, V _{CE} =2V*



Derating curve



Maximum transient thermal impedance

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TYPICAL CHARACTERISTICS

