

ZTX752
ZTX753

PNP SILICON PLANAR
MEDIUM POWER TRANSISTORS

ISSUE 2 – JULY 94

ZTX752
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ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

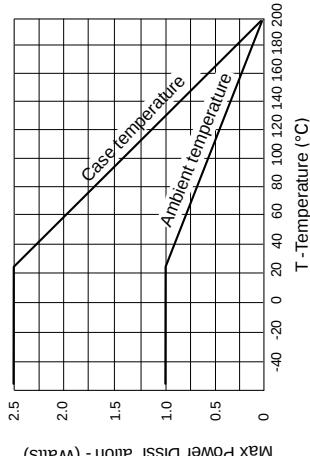
PARAMETER	SYMBOL	ZTX752		ZTX753		UNIT	CONDITIONS.
		MIN.	TYP.	MAX.	TYP.	MAX.	
Transition Frequency	f _T	100	140		140		I _C =-100mA, V _{CE} =-5V f=100MHz
Switching Times	t _{on}		40		40		I _C =-500mA, V _{CE} =-10V I _{B1} =I _{B2} =-50mA
	t _{off}		600		600		
Output Capacitance	C _{obo}			30		30	V _{CE} =-10V f=1MHz

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

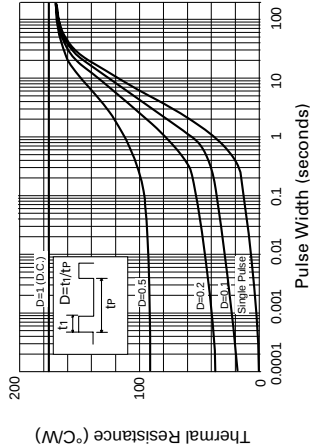
THERMAL CHARACTERISTICS

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

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



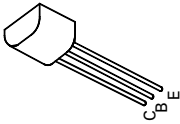
Derating curve



Maximum transient thermal impedance

FEATURES

- * 100 Volt V_{CE0}
- * 2 Amp continuous current
- * Low saturation voltage
- * P_{tot}=1 Watt



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

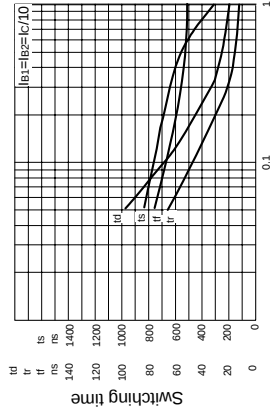
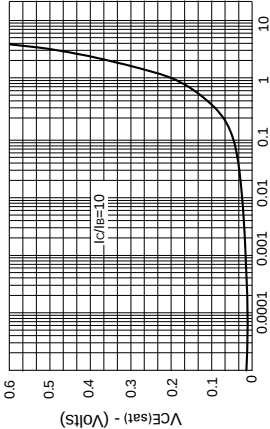
PARAMETER	SYMBOL	ZTX752	ZTX753	UNIT
Collector-Base Voltage	V _{CB0}	-100	-120	V
Collector-Emitter Voltage	V _{CE0}	-80	-100	V
Emitter-Base Voltage	V _{EB0}	-5	-5	V
Peak Pulse Current	I _{CM}	-6	-6	A
Continuous Collector Current	I _C	-2	-2	A
Power Dissipation at T _{amb} =25°C derate above 25°C	P _{tot}	1	5.7	W mW/°C
Operating and Storage Temperature Range	T _J ; T _{stg}	-55 to +200	-55 to +200	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated).

PARAMETER	SYMBOL	ZTX752		ZTX753		UNIT	CONDITIONS.
		MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
Collector-Base Breakdown Voltage	V _{(BR)CBO}	-100			-120		V I _C =-100μA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	-80			-100		V I _C =-10mA*
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	-5			-5		V I _E =-100μA
Collector Cut-Off Current	I _{CBO}			-0.1			V _{CE} =-80V V _{CB} =-100V
				-10			V _{CE} =-80V, T _{amb} =100°C
							V _{CB} =-100V, T _{amb} =100°C
							V _{CB} =-100V, T _{amb} =100°C
Emitter Cut-Off Current	I _{EBO}			-0.1			V _{EB} =-4V
Collector-Emitter Saturation Voltage	V _{CE(sat)}	-0.17 -0.30		-0.3 -0.5	-0.17 -0.30		V I _C =-1A, I _B =-100mA*
Base-Emitter Saturation Voltage	V _{BE(sat)}	-0.9		-1.25	-0.9		V I _C =-2A, I _B =-200mA*
Base-Emitter Turn-On Voltage	V _{BE(on)}	-0.8		-1	-0.8		V I _C =-1A, V _{CE} =-2V*

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TYPICAL CHARACTERISTICS

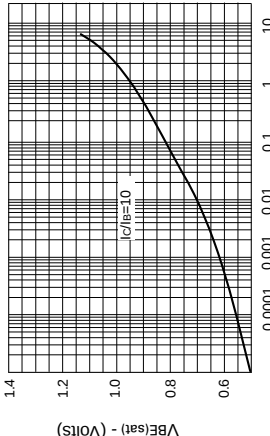
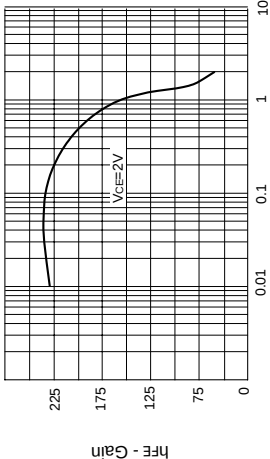


IC - Collector Current (Amps)

IC - Collector Current (Amps)

VCE(sat) v IC

Switching Speeds

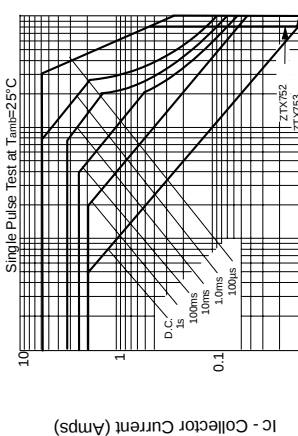
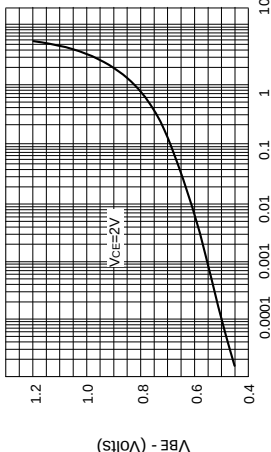


IC - Collector Current (Amps)

IC - Collector Current (Amps)

hFE v IC

VBE(sat) v IC



IC - Collector Current (Amps)

VCE - Collector Voltage (Volts)

VBE(on) v IC

Safe Operating Area