THE DATASHEET OF

ZTX749

ZTX749

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

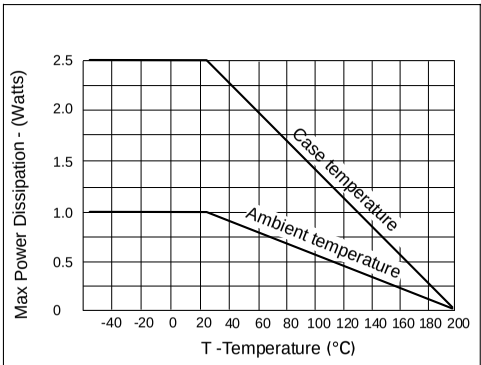
PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Transition Frequency	f_T	100	160		MHz	I_C=-100mA, V_{CE}=-5V f=100MHz
Output Cpacitance	C_{obo}		55	100	pF	V_{CB}=-10V f=1MHz
Switching Times	t_{on}		40		ns	I_C=-500mA, V_{CC}=-10V I_{B1}=I_{B2}=-50mA
	t_{off}		450		ns	

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

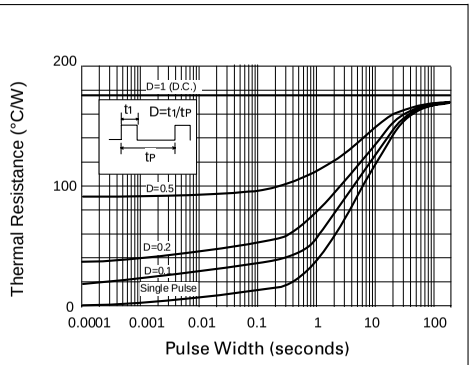
THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance:Junction to Ambient$_1$	$R_{th(j\text{-}amb)1}$	175	°C/W
Junction to Ambient$_2$	$R_{th(j\text{-}amb)2}$†	116	°C/W
Junction to Case	$R_{th(j\text{-}case)}$	70	°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 TRANSIS

ISSUE 1 – APRIL 94

FEATURES

* 25 Volt V_{CEO}
* 2 Amp continuous current
* Low saturation voltage

ABSOLUTE MAXIMUM RATINGS

PARAMETER
Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Peak Pulse Current
Continuous Collector Current
Power Dissipation at T_{amb}=25°C derate above 25°C
Operating and Storage Temperature R

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	M
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-3
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-2
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5
Collector Cut-Off Current	I_{CBO}	
Emitter Cut-Off Current	I_{EBO}	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	
Static Forward Current Transfer Ratio	h_{FE}	70 10 75 15

*Measured under pulsed conditions. Pulse

ZTX749

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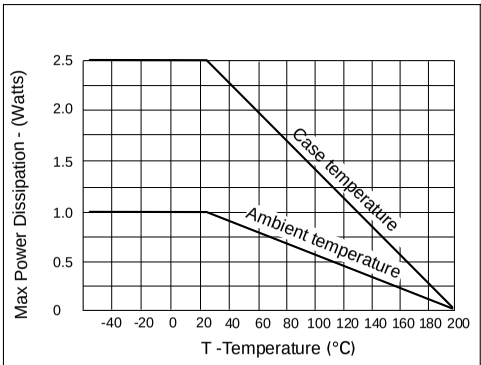
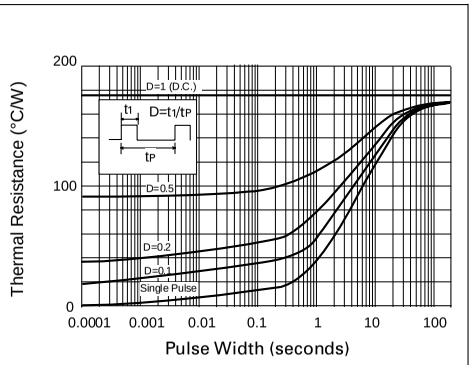


Derating curve



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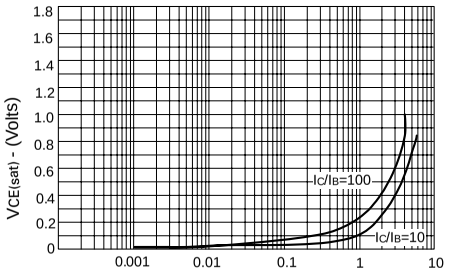
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	
Static Forward Current Transfer Ratio	h_{FE}	70 10 75 15

*Measured under pulsed conditions. Pulse

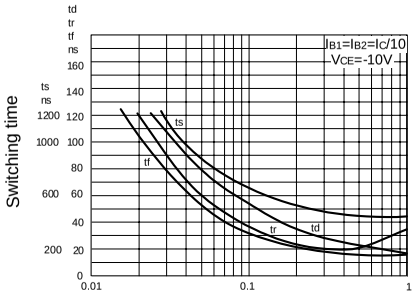
ZTX749

TYPICAL CHARACTERISTICS



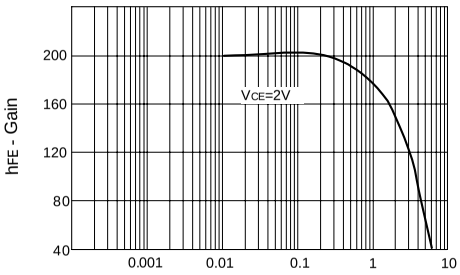
IC - Collector Current (Amps)

VCE(sat) v IC



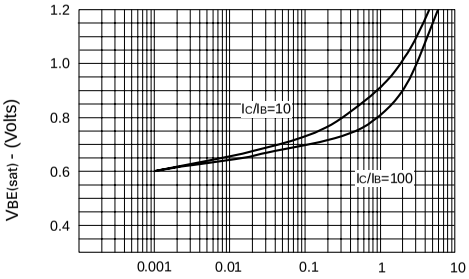
IC - Collector Current (Amps)

Switching Speeds



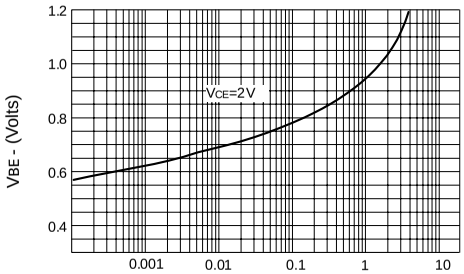
IC - Collector Current (Amps)

hFE v IC



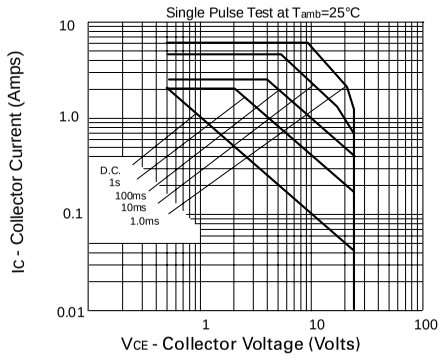
IC - Collector Current (Amps)

VBE(sat) v IC



IC - Collector Current (Amps)

VBE(on) v IC



Safe Operating Area

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