

ZTX968

PNP SILICON PLANAR MEDIUM POWER
HIGH CURRENT TRANSISTOR
ZTX968

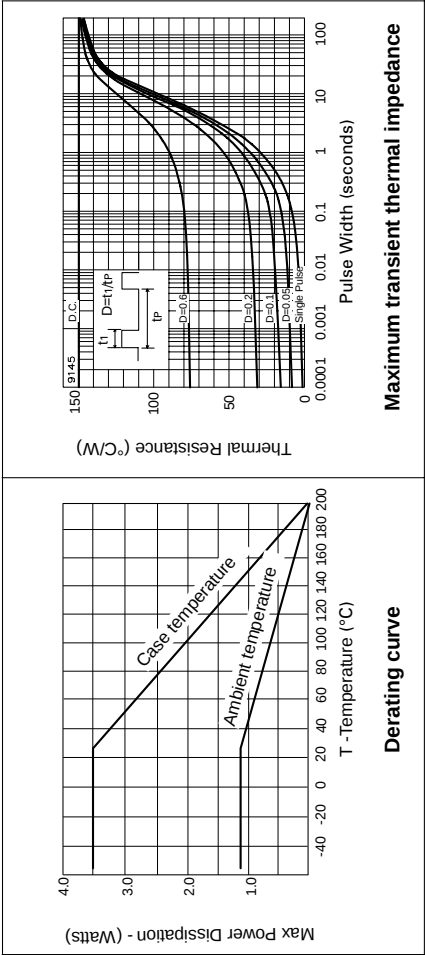
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Static Forward Current Transfer Ratio	h _{FE}	300	450	1000		I _C =10mA, V _{CE} =1V*
		300	450			I _C =500mA, V _{CE} =1V*
		200	300			I _C =5A, V _{CE} =1V*
		150	240			I _C =10A, V _{CE} =1V*
			50			I _C =20A, V _{CE} =1V*
Transition Frequency	f _T		80		MHz	I _C =100mA, V _{CE} =10V f=50MHz
Output Capacitance	C _{obo}		161		pF	V _{CE} =20V, f=1MHz
Switching Times	t _{on}		120		ns	I _C =4A, I _B =400mA
	t _{off}		116		ns	I _B =400mA, V _{CE} =10V

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

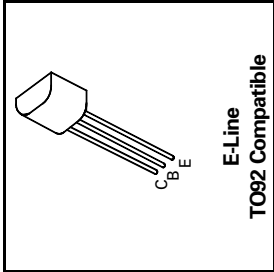
THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	MAX.	UNIT
Thermal Resistance: Junction to Ambient Junction to Case	R _{th(j-amb)}	150	°C/W
	R _{th(j-case)}	50	°C/W



FEATURES

- * 4.5 Amps continuous current
- * Up to 20 Amps peak current
- * Very low saturation voltage
- * High gain
- * Spice model available



ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CBO}	-15	V
Collector-Emitter Voltage	V _{CEO}	-12	V
Emitter-Base Voltage	V _{EB0}	-6	V
Peak Pulse Current	I _{CM}	-20	A
Continuous Collector Current	I _C	-4.5	A
Practical Power Dissipation *	P _{totp}	1.58	W
Power Dissipation at T _{amb} =25°C	P _{tot}	1.2	W
Operating and Storage Temperature Range	T _J ; T _{stg}	-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

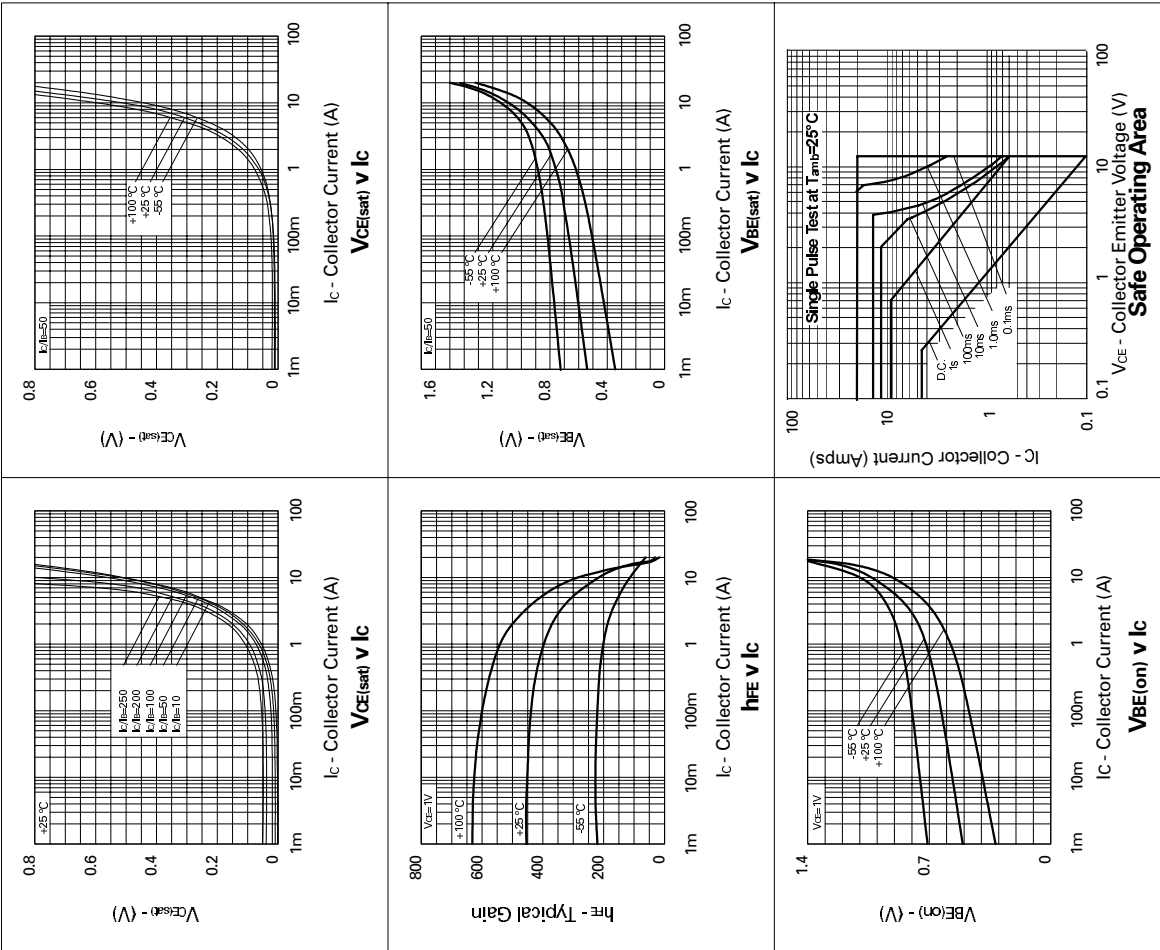
ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C unless otherwise stated)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	V _{BR(CBO)}	-15	-28		V	I _C =100µA
Collector-Emitter Breakdown Voltage	V _{BR(CEO)}	-12	-20		V	I _C =10mA*
Emitter-Base Breakdown Voltage	V _{BR(EB0)}	-6	-8		V	I _E =100µA
Collector Cut-Off Current	I _{CBO}			-50 -1	nA µA	V _{CE} =12V V _{CB} =12V, T _{amb} =100°C
Emitter Cut-Off Current	I _{EB0}			-10	nA	V _{EB} =6V
Collector-Emitter Saturation Voltage	V _{CE(sat)}		-50	-100	mV	I _C =500mA, I _B =5mA*
			-100	-150	mV	I _C =2A, I _B =50mA*
			-220	-300	mV	I _C =5A, I _B =200mA*
Base-Emitter Saturation Voltage	V _{BE(sat)}		-930	-1050	mV	I _C =5A, I _B =200mA*
Base-Emitter Turn-On Voltage	V _{BE(on)}		-830	-1000	mV	I _C =5A, V _{CE} =1V*

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TYPICAL CHARACTERISTICS



XELTZ

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