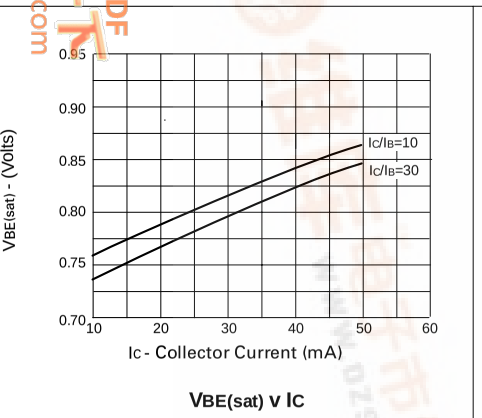
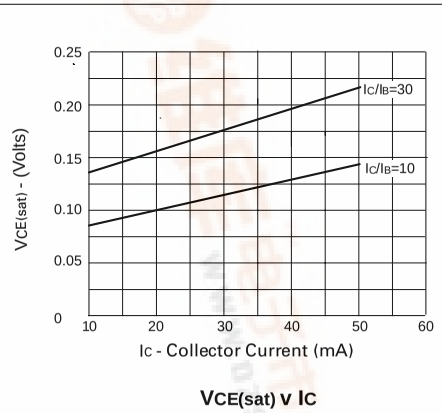
ZTX300

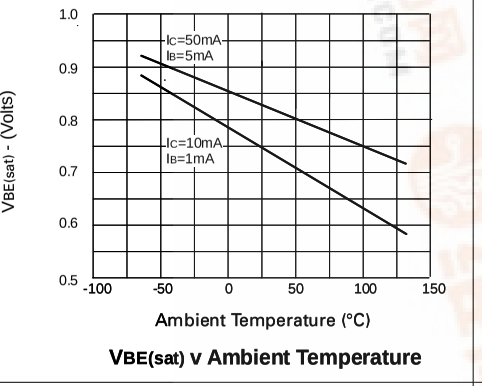
TYPICAL CHARACTERISTICS



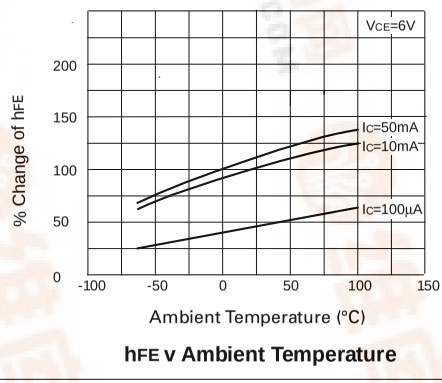
VBE(sat) v IC



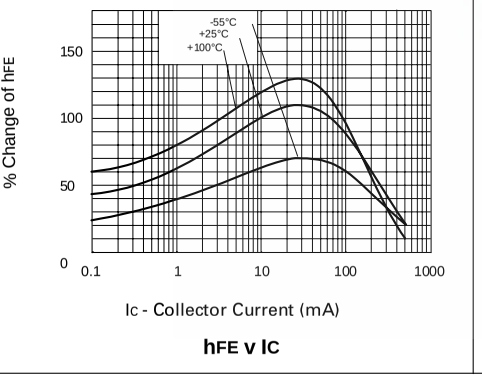
VCE(sat) v IC



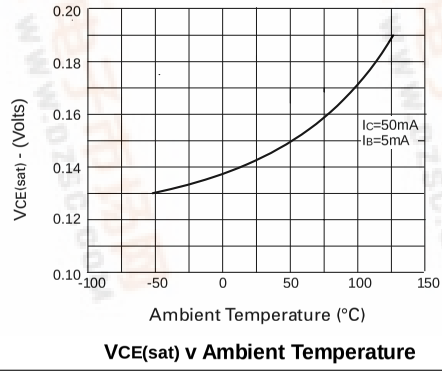
VBE(sat) v Ambient Temperature



hFE v Ambient Temperature



hFE v IC



VCE(sat) v Ambient Temperature

NPN SILICON PLANAR SMALL SIGNAL TRANSISTOR

ZTX300

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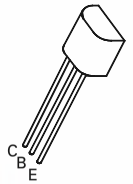

E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Continuous Collector Current	I_C	500	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	300	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +175	°C

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

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	25			V	I_C=10µA, I_E=0
Collector-Emitter Sustaining Voltage	$V_{CEO(sus)}$	25			V	I_C=5mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=10µA, I_C=0
Collector Cut-Off Current	I_{CBO}			0.2	µA	V_{CB}=25V, I_E=0
Emitter Cut-Off Current	I_{EBO}			0.2	µA	V_{EB}=4V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.35	V	I_C=50mA, I_B=5mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	0.65		1.0	V	I_C=10mA, I_B=1mA*
Static Forward Current Transfer Ratio	h_{FE}	50		300		I_C=10mA, V_{CE}=6V*
Transition Frequency	f_T	150			MHz	I_C=10mA, V_{CE}=6V f=100MHz
Output Capacitance	C_{obo}			6	pF	V_{CB}=6V, I_E=0 f=1MHz
Noise Figure	N		7		dB	V_{CE}=6V, f=1KHz R_S=1500Ω, I_C=100µA

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

NPN SILICON PLANAR SMALL SIGNAL TRANSISTOR

ZTX300

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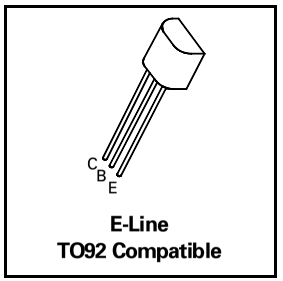

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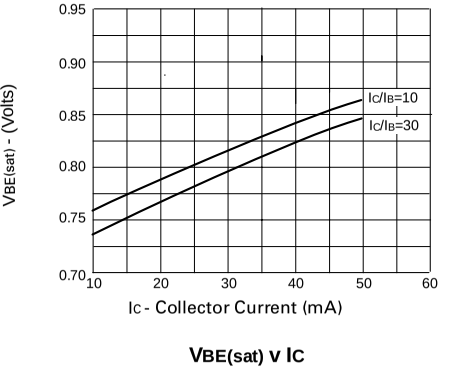
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5			V	I_E=10μA, I_C=0
Collector Cut-Off Current	I_{CBO}			0.2	μA	V_{CB}=25V, I_E=0
Emitter Cut-Off Current	I_{EBO}			0.2	μA	V_{EB}=4V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.35	V	I_C=50mA, I_B=5mA*
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	0.65		1.0	V	I_C=10mA, I_B=1mA*
Static Forward Current Transfer Ratio	h_{FE}	50		300		I_C=10mA, V_{CE}=6V*
Transition Frequency	f_T	150			MHz	I_C=10mA, V_{CE}=6V f=100MHz
Output Capacitance	C_{obo}			6	pF	V_{CB}=6V, I_E=0 f=1MHz
Noise Figure	N		7		dB	V_{CE}=6V, f=1KHz R_S=1500Ω, I_C=100μA

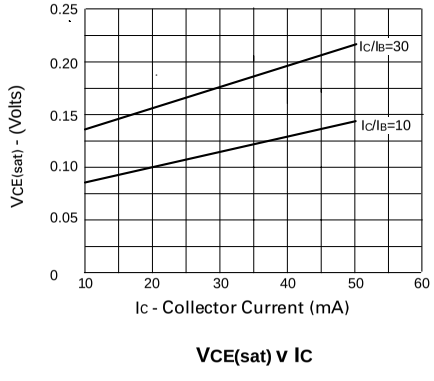
*Measured under pulsed conditions. Pulse width=300μs. Duty cycle ≤ 2%

ZTX300

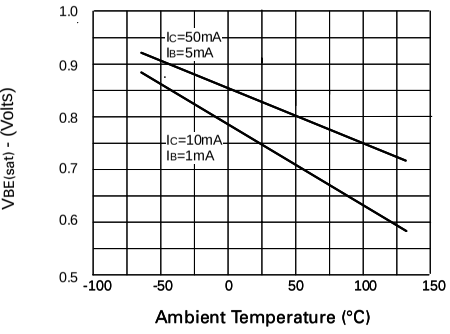
TYPICAL CHARACTERISTICS



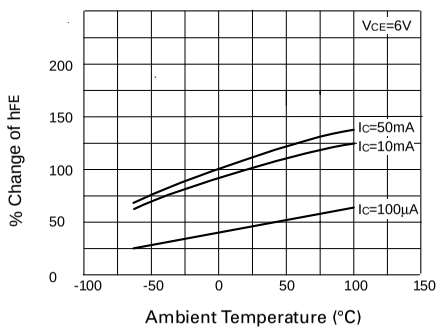
VBE(sat) v IC



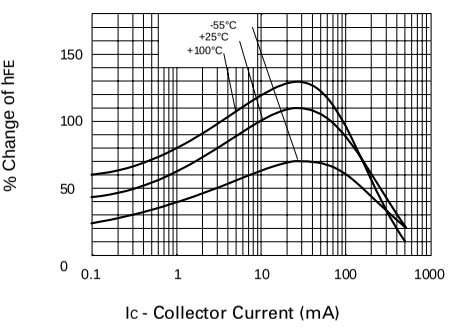
VCE(sat) v IC



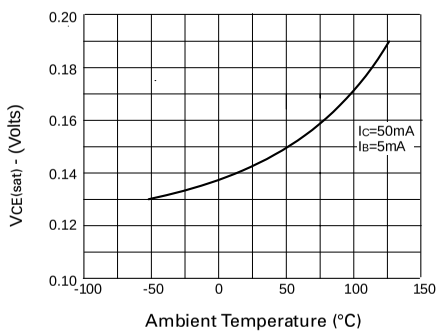
VBE(sat) v Ambient Temperature



hFE v Ambient Temperature



hFE v IC



VCE(sat) v Ambient Temperature