



THE DATASHEET OF ZTX325



ZTX325

NPN SILICON PLANAR RF TRANSISTOR

ISSUE 2 – MARCH 94

FEATURES

- * High f_T , 1.3GHz
- * Low noise < 5dB at 500MHz
- * Power output at 500MHz >175mW

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Noise Figure	N		5.0		dB	$f=500\text{MHz}$, $V_{CE}=5\text{V}$, $I_C=2\text{mA}$, $R_S=50\Omega$
Intermodulation Distortion	d_{im}		-53		dB	$I_C=14\text{mA}$, $V_{CE}=6\text{V}$, $f=217\text{MHz}$ $V_0=100\text{mV}$, $R_1=37.5\Omega$, $f_1=183\text{MHz}$, $f_2=200\text{MHz}$
Output Power (at $T_{case}=25^\circ\text{C}$)*	P_O	175			mW	$V_{CE}=13.5\text{V}$, $I_C=22.5\text{mA}$ $P_{in}=25\text{mW}$, $f=500\text{MHz}$

*It is essential that care be taken to reduce steady state current when no h.f. signal is applied.

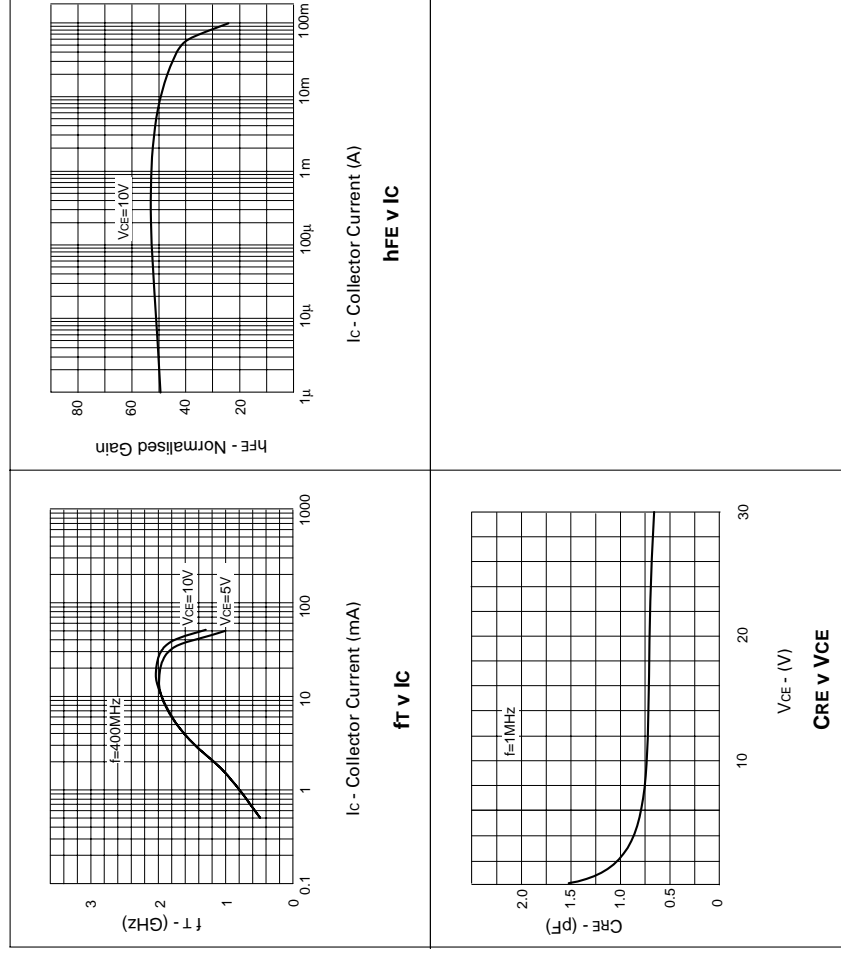
ABSOLUTE MAXIMUM RATINGS

PARAMETER	MAXIMUM RATING
Collector-Base Voltage	V_{CB}
Collector-Emitter Voltage	V_{CE}
Emitter-Base Voltage	V_{EB}
Mean Collector Current (Averaged over 1 sec)	$I_{C(av)}$
Collector Current	I_C
Power Dissipation at $T_{amb}=25^\circ\text{C}$	P_{tot}
Operating and Storage Temperature Range	T_{stg}

ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	MAXIMUM RATING
Collector-Emitter Sustaining Voltage	$V_{CE(sus)}$	15
Emitter-Base Breakdown Voltage	$V_{(BR)EB}$	5
Collector Cut-Off Current	I_{CBO}	1
Emitter Cut-Off Current	I_{CES}	2
Static Forward Current Transfer Ratio	h_{FE}	20
Transition Frequency	f_T	1.3
Capacitance, Collector Depletion Layer	C_{TC}	1
Capacitance, Emitter Depletion Layer	C_{TE}	1
Feedback Capacitance	$-C_{re}$	1
Feedback Time Constant	$r_{bb}'C_{b,c}$	2

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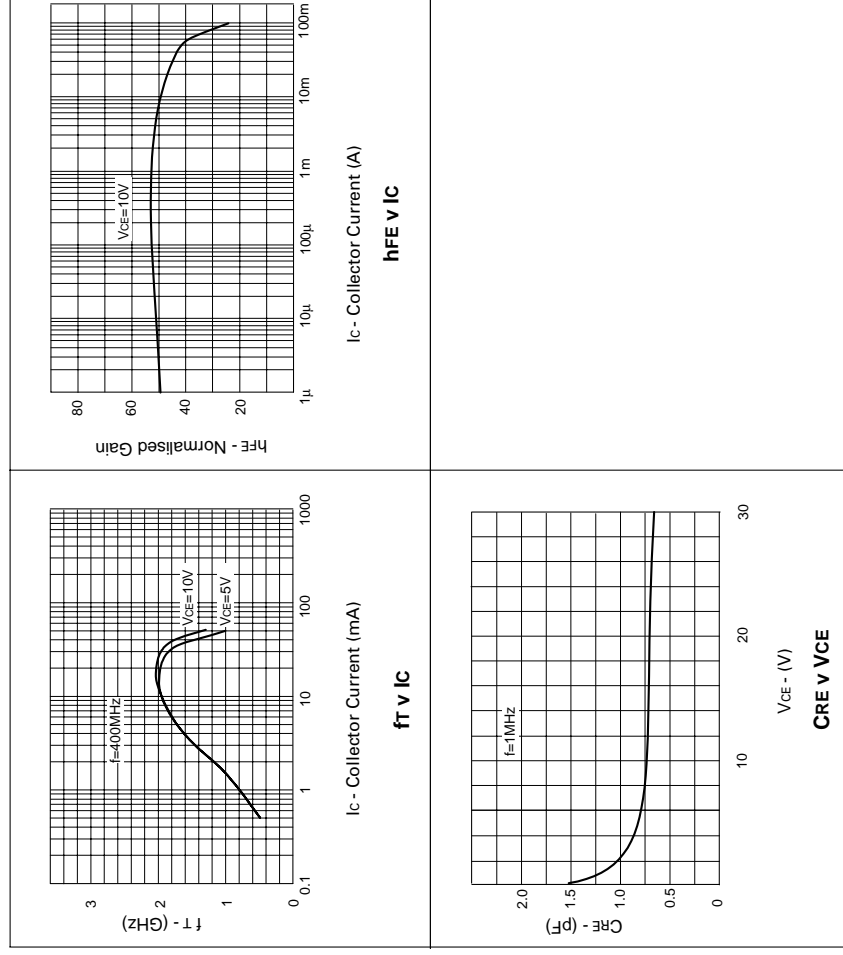
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