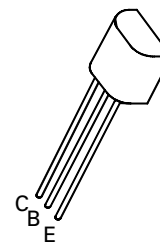


# NPN SILICON PLANAR R.F. MEDIUM POWER TRANSISTOR

ISSUE 2 – MARCH 94

## ZTX327



E-Line  
TO92 Compatible

### ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	$V_{CBO}$	55	V
Collector-Emitter Voltage	$V_{CEO}$ $V_{CER}$	30 55	V V
Emitter-Base Voltage	$V_{EBO}$	3.5	V
Continuous Collector Current	$I_C$	400	mA
Power Dissipation	$P_{tot}$	1.5	W
Operating and Storage Temperature Range	$T_j: T_{stg}$	-55 to +175	°C

### ELECTRICAL CHARACTERISTICS (at $T_{amb} = 25^\circ\text{C}$ unless otherwise stated).

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	CONDITIONS.
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	55			V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Sustaining Voltage	$V_{(BR)CEO(sus)}$	30			V	$I_C=5\text{mA}, I_B=0$
	$V_{(BR)CER(sus)}$	55			V	$I_C=5\text{mA}, R_{BE}=10\Omega$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	3.5			V	$I_E=100\mu\text{A}, I_C=0$
Collector-Emitter Cut-Off Current	$I_{CEO}$			20	$\mu\text{A}$	$V_{CB}=45\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$			1.0	V	$I_C=100\text{mA}, I_B=20\text{mA}$
Static Forward Current Transfer	$h_{FE}$	15				$I_C=50\text{mA}, V_{CE}=5\text{V}$
Transitional Frequency	$f_T$	500	800		MHz	$I_C=25\text{mA}, V_{CE}=15\text{V}$ $f=100\text{MHz}$
Output Capacitance	$C_{obo}$			3.0	pF	$V_{CE}=15\text{V}, I_C=25\text{mA}$ $f=100\text{MHz}$
R.F. power output	$P_{OUT}$	350	440		mW	$V_{CC}=12\text{V}, P_{IN}=80\text{mW}$ $f=400\text{MHz}$
Efficiency	$\eta$	50	70		%	