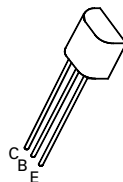


NPN SILICON PLANAR R.F. MEDIUM POWER TRANSISTOR

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	$V_{(BR)CEO(sus)}$ $V_{(BR)CER(sus)}$	30 55			V	$I_C=5\text{mA}, I_B=0$ $I_C=5\text{mA}, R_{BE}=10\Omega$
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	μA	$V_{CB}=45\text{V}$
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	η	50	70		%	