

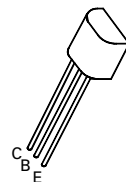
NPN SILICON PLANAR R.F. MEDIUM POWER TRANSISTOR

ZTX3866

ISSUE 2 – MARCH 94

FEATURES

- * 1W P_{OUT} at 175 MHz, 28V, 18dB typical
- * 1W P_{OUT} at 400 MHz, 28V, 9.7dB typical
- * High P_{tot}
- * High efficiency



E-Line
TO92 Compatible

ABSOLUTE MAXIMUM RATINGS.

PARAMETER	SYMBOL	VALUE	UNIT
Collector-Base Voltage	V _{CBO}	55	V
Collector-Emitter Voltage	V _{CEO}	30	V
Collector-Emitter Voltage	V _{CER}	55	V
Emitter-Base Voltage	V _{EBO}	3.5	V
Continuous Collector Current	I _{CM}	400	mA
Power Dissipation	P _{tot}	350	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}	55			V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	V _{(BR)CEO(sus)}	30			V	I _C =5mA, I _B =0
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	3.5			V	I _E =100μA, I _E =0
Collector Emitter Cut-Off Current	I _{CEO}			20	μA	V _{CB} =28V, I _B =0
Collector-Emitter Saturation Voltage	V _{CE(sat)}			1.0	V	I _C =100mA, I _B =20mA
Collector-Emitter Sustaining Voltage	V _{(BR)CER(sus)}	55			V	I _C =5mA, R _{BE} =10Ω
Static Forward Current Transfer	h _{FE}	15		200		I _C =50mA, V _{CE} =5V
Transitional Frequency	f _T	400	700		MHz	I _C =25mA, V _{CE} =15V f=100MHz
Output Capacitance	C _{obo}			3.0	pF	V _{CB} =30V, I _E =0, f=1MHz
R.F. Power Output	P _{OUT}	700	900		mW	V _{CC} =28V, P _{IN} =100mW f=400MHz
Efficiency	η	50	70		%	