

Advance Information
The RF Line
UHF Power Transistor

The TP3020A is designed for use in the 900 MHz mobile radio band. Its high gain and ability to operate Class A makes it an ideal choice as a driver operating Class A, Class B or Class C.

- 960 MHz
- 2.2 W — P_{out}
- 26 V — V_{CC}
- High Gain — 9.0 dB, Class A

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Emitter-Base Voltage	V _{EBO}	3.5	V _{dc}
Total Device Dissipation @ T _C = 25°C Derate above 25°C	P _D	8.75 0.05	Watts W/°C
Operating Junction Temperature	T _J	200	°C
Storage Temperature Range	T _{stg}	-65 to +200	°C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case (T _C = 70°C)	R _{θJC}	20	°C/W

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
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OFF CHARACTERISTICS

Emitter-Base Breakdown Voltage (I _E = 0.5 mA, I _C = 0)	V _{(BR)EBO}	3.5	—	—	V _{dc}
Collector-Emitter Breakdown Voltage (I _C = 10 mA, R _{BE} = 75 Ω)	V _{(BR)CER}	40	—	—	V _{dc}
Collector Cutoff Current (V _{CB} = 24 V, I _E = 0)	I _{CBO}	—	—	0.5	mAdc

ON CHARACTERISTICS

DC Current Gain (I _C = 100 mA, V _{CE} = 5.0 V)	h _{FE}	15	—	120	—
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DYNAMIC CHARACTERISTICS

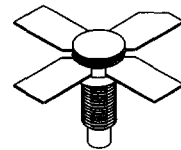
Output Capacitance (V _{CB} = 28 V, I _E = 0, f = 1.0 MHz)	C _{ob}	—	—	5.0	pF
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FUNCTIONAL TESTS

Common-Emitter Amplifier Power Gain (V _{CE} = 26 V, P _{out} = 2.2 W, f = 960 MHz, I _Q = 200 mA)	G _{PE}	9.1	—	—	dB
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TP3020A

2.2 W, 960 MHz
UHF POWER
TRANSISTOR
NPN SILICON



CASE 244-04, STYLE 1
(.280 SOE)