

GENERAL DESCRIPTION

The 46120 is a stable common emitter transistor capable of providing 20 watts of CW RF output power across the 500-1000 MHz frequency band. This transistor is specifically designed for Class A, AB and C general purpose amplifier applications. It utilizes gold metallization and diffused ballasting to provide high reliability and supreme ruggedness.

46120
20 WATTS - 28 VOLTS
1000 MHZ

UHF COMMUNICATIONS

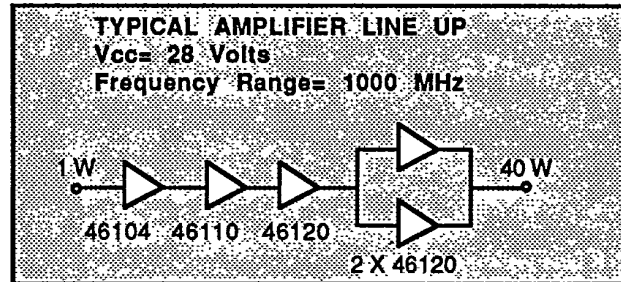
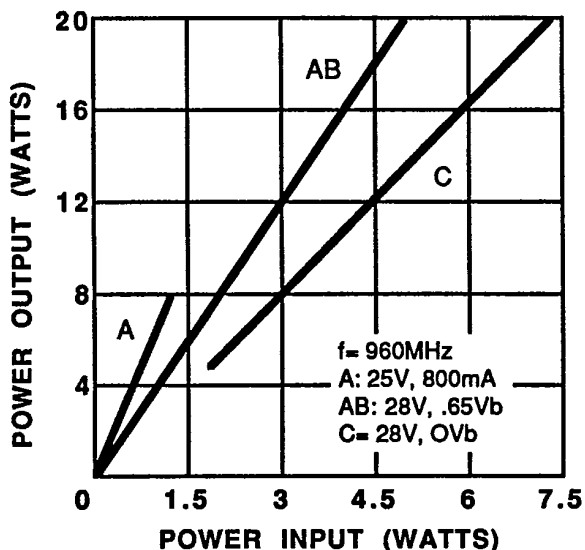
DIM	Millimeter	TOL	Inches	TOL
A	25.40	.25	1.000	.010
B	45°	5°	45°	5°
C	5.71	.13	.225	.005
D	6.99 DIA	.13	.275 DIA	.005
E	4.44	.13	.175	.005
F	1.52	.13	.060	.005
G	3.05	.13	.120	.005
H	12.95	.25	.510	.010
I	3.30	.13	.130	.005
J	16.64	REF	.655	REF
K	0.13	.02	.005	.001

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C Case Temperature	60 W
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	50 V
BVebo Emitter to Base Voltage	4.0 V
Ic Collector Current	2.0 A

Maximum Temperatures	
Storage Temperature	-65 to +150°C
Operating Junction Temperature	+200°C

POWER OUTPUT VS POWER INPUT (TYPICAL)



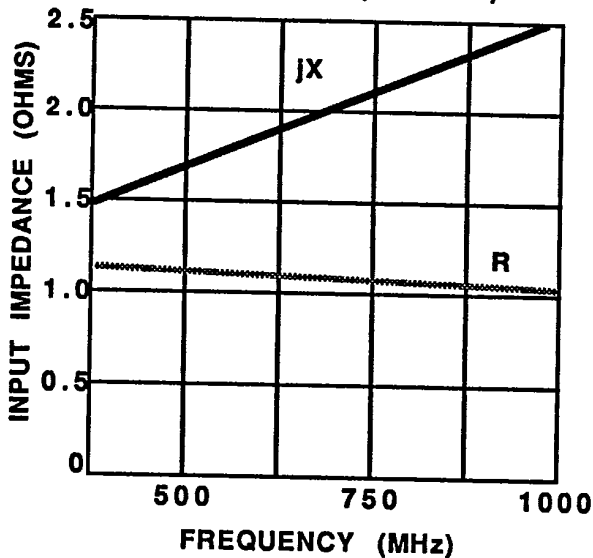
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ELECTRICAL CHARACTERISTICS¹

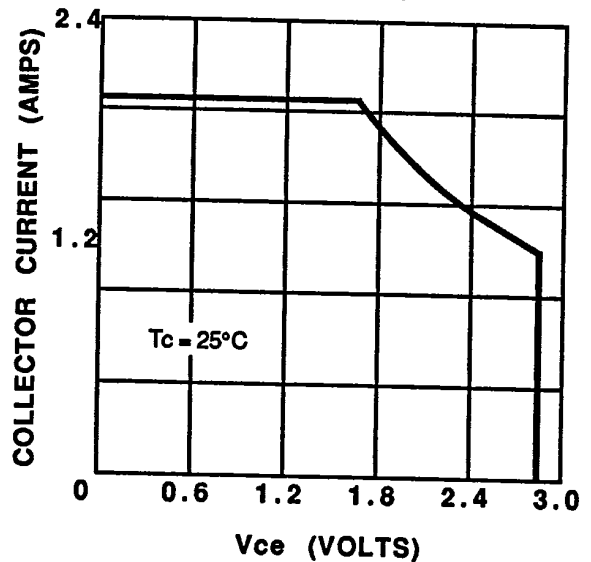
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
P _{out}	Power Output	f = 960 MHz V _{cc} = 28V Class C	20			Watts
P _{in}	Power Input				8	Watts
P _g	Power Gain		3.9			dB
η _c	Collector Efficiency			60		%
BV _{ebo}	Breakdown Voltage (Emitter to Base)	I _c = 0A, I _e = 5mA	4.0			Volts
BV _{ces}	Breakdown Voltage (Collector to Emitter)	V _{be} = 0A, I _c = 20mA	50			Volts
BV _{ceo}	Breakdown Voltage (Collector to Emitter)	I _b = 0A, I _c = 100mA	30			Volts
C _{ob}	Capacitance-Collector to Base	V _{cb} = 28V, f = 1MHz		20		pF
h _{FE}	DC-Current Gain		10			
θ _{jc}	Thermal Resistance	IR Scan; P _d = 20W			3.0	°C/W

Note 1: T_c = +25°C unless otherwise specified

SERIES INPUT IMPEDANCE VS FREQUENCY (TYPICAL)



DC SAFE OPERATING AREA (TYPICAL)



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

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