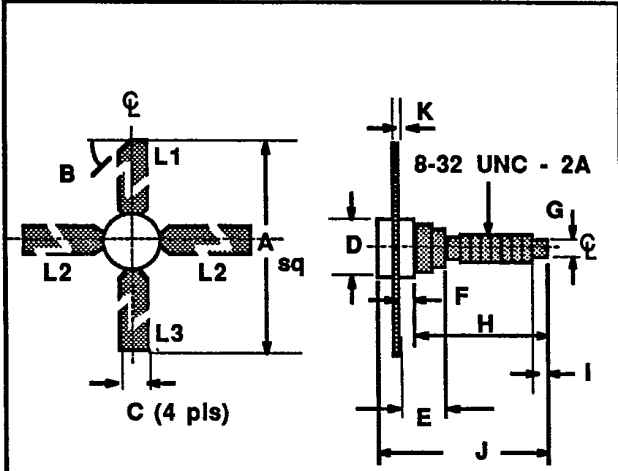


**GENERAL DESCRIPTION**

The 46110 is a stable common emitter transistor capable of providing 10 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.

**46110**  
**10 WATTS - 28 VOLTS**  
**1000 MHz**

**UHF COMMUNICATIONS**



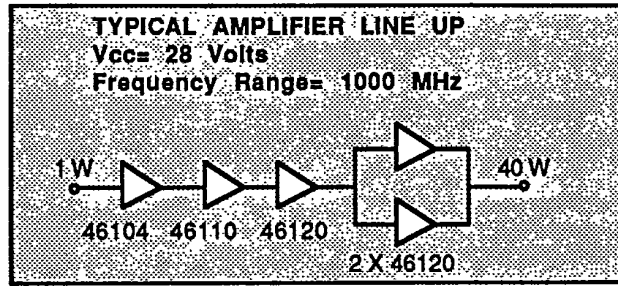
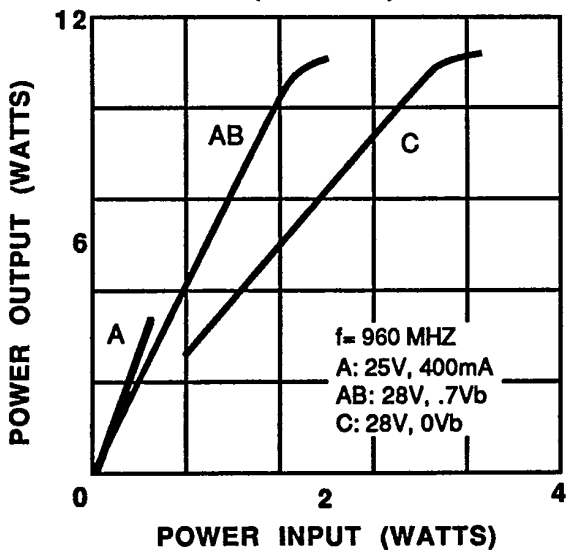
**ABSOLUTE MAXIMUM RATINGS**

Maximum Power Dissipation @ 25°C Case Temperature	30 W
Maximum Voltage and Current	
BVces Collector to Emitter Voltage	50 V
BVebo Emitter to Base Voltage	4.0 V
Ic Collector Current	1.0 A

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

DIM	Millimeter	TOL	Inches	TOL	
L1 : C	A	25.40	.25	1.000	.010
L2 : E	B	45°	5°	45°	5°
L3 : B	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

**POWER OUTPUT VS POWER INPUT (TYPICAL)**



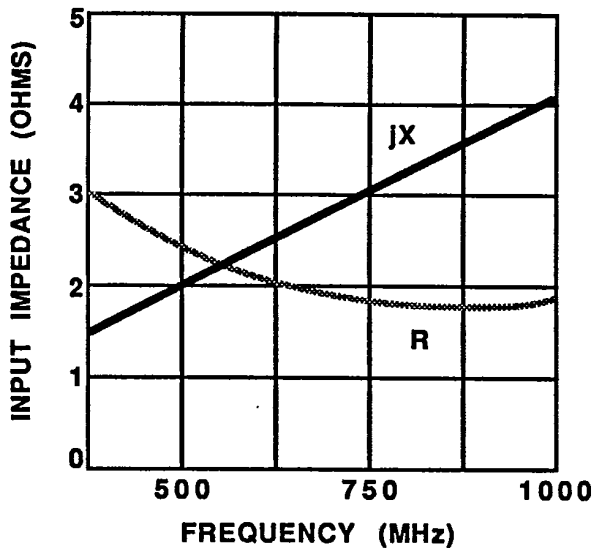
46110-2

**ELECTRICAL CHARACTERISTICS<sup>1</sup>**

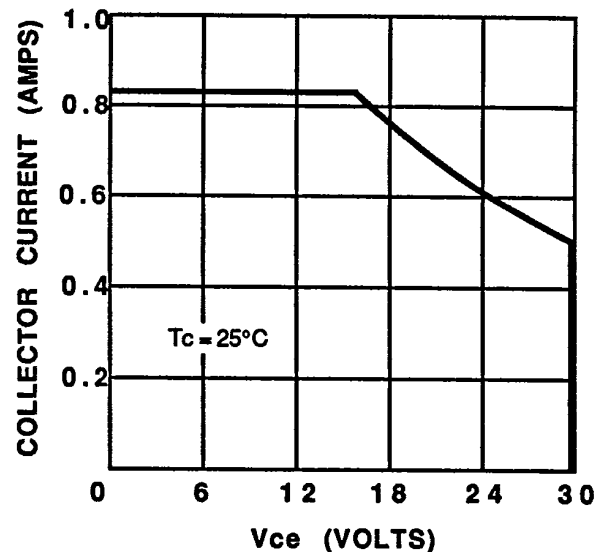
SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Pout	Power Output	f= 960 MHz Vcc= 28V Class C	10			Watts
Pin	Power Input				3.0	Watts
Pg	Power Gain		5.2			dB
$\eta_c$	Collector Efficiency			60		%
VSWR	Load Mismatch Tolerance				3:1	
BVebo	Breakdown Voltage (Emitter to Base)	Ic= 0A, Ie= 5mA	4.0			Volts
BVces	Breakdown Voltage (Collector to Emitter)	Vbe= 0A, Ic= 10mA	50			Volts
BVceo	Breakdown Voltage (Collector to Emitter)	Ib= 0A, Ic= 50mA	30			Volts
Cob	Capacitance-Collector to Base	Vcb= 28V, f= 1MHz		10		pF
h <sub>FE</sub>	DC-Current Gain	Vc= 5V, Ic= 300 mA	20			
$\theta_{jc}$	Thermal Resistance	IR Scan; Pd= 10W			6.0	°C/W
Lc	Collector Inductance			1.2		nH

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

**SERIES INPUT IMPEDANCE VS FREQUENCY (TYPICAL)**



**DC SAFE OPERATING AREA (TYPICAL)**



SPECIFICATIONS MAY BE SUBJECT TO CHANGE WITHOUT NOTICE

212