NATIONAL

NL-11826
POWER TRIODE

The NL-11826 is intended for use in pulse-modulator, pulsed-amplifier, and pulsed-oscillator services. This tube is a compact, high vacuum, radial-beam triode recommended for use in new equipment where high voltage or high current is encountered.

GENERAL CHARACTERISTICS

Electrical

FILAMENT: Thoriated Tungsten	
Voltage	5.0±0.25 V
Current, at 5.0 volts	14.6 A
Amplification Factor (Average)	130
Direct Interelectrode Capacitances (grounded filament)	
Input	8.3 pF
Output	0.07 pF
Feedback	4.7 pF
Direct Interelectrode Capacitances (grounded grid)	
Input	8.3 pF
Output	4.7 pF
Feedback	0.07 pF
Frequency of Maximum Rating:	
CW	110 MHz

Mechanical

Net Weight, approx.	7.5 oz
Operating Position	Vertical, base down or up
Maximum Operating Temperature:	
Plate Seal	225°C
Base Seals	200°C
Cooling	Radiation and forced air
Base	5 Pin Special

Range Values for Equipment Design	**Min.**	**Max.**	
Filament: Current at 5.0 volts	13.8	15.0	A
Interelectrode Capacitances[1] (grounded filament connection)			
Input	6.5	10.0	pF
Output	-	0.18	pF
Feedback	4.2	5.2	pF
Interelectrode Capacitances[1] (grounded grid connection)			
Input	6.5	10.0	pF
Output	4.2	5.2	pF
Feedback	-	0.18	pF
Zero Signal Plate Current:			
(Ec=0 Vdc, Eb=2500 Vdc)	90	180	mAdc

[1] In Shielded Fixture

NATIONAL ELECTRONICS
A Division of Richardson Electronics, Ltd.
LaFox, IL 60147 • (708) 208-2300

High-Level Modulated Radio-Frequency Amplifier Pulse-Width Modulation

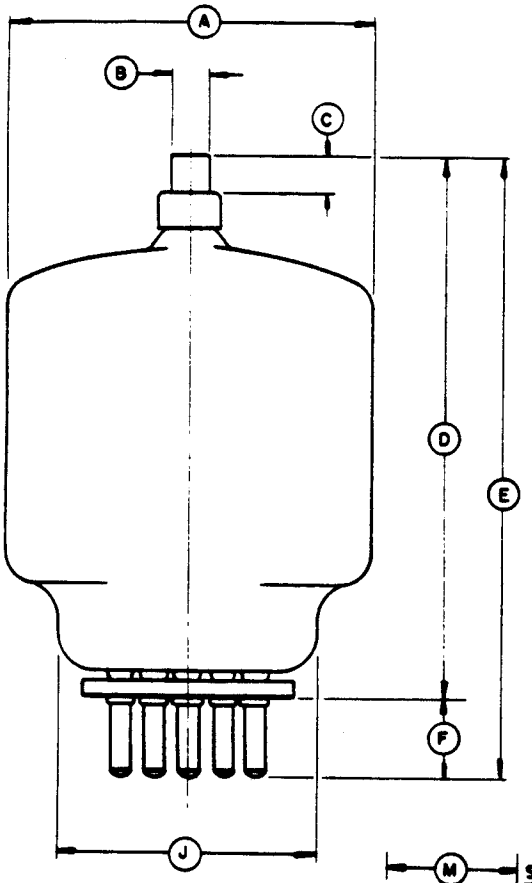
Grid Driven Absolute Maximum Ratings:	**RF Amplifier**	**Switching Modulator**	
DC Plate Voltage	4	17	kilovolts
DC Plate Current	0.4	0.4	amperes
DC Grid Voltage	-200	-200	volts
Plate Dissipation	500	500	watts
Grid Dissipation	20	20	watts
Typical Operations (Carrier Conditions)[1]			
Plate Voltage	3.0	15	kVdc
Plate Current	250	180	mAdc
Grid Voltage	-85	-120	Vdc
Grid Current[2]	170	125	mAdc
Useful Power Output[2]	550	1500	W

[1] These conditions assume rectangular drive waveform and a third harmonic, high-efficiency "Tyler" circuit.
[2] Approximate value.

NOTE: TYPICAL OPERATION data are obtained by calculation from published characteristic curves or actual measurement. Adjustment of the rf grid voltage to obtain the specified plate current at the specified bias and plate voltages is assumed. If this procedure is followed, there will be little variation in output power when the tube is changed, even though there may be some variation in grid current. The grid current which results when the desired plate current is obtained is incidental and varies from tube to tube. These current variations cause no difficulty so long as the circuit maintains the correct voltage in the presence of the variations in current. If grid bias is obtained principally by means of a grid resistor, the resistor must be adjustable to obtain the required bias voltage when the correct rf grid voltage is applied.

NATIONAL

NL-11826
POWER TRIODE



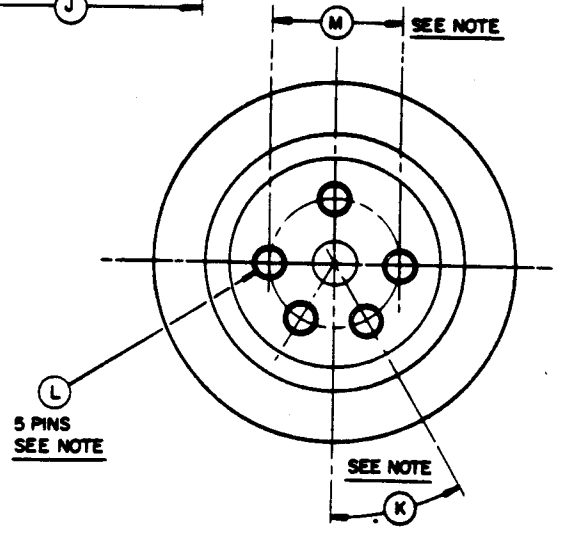
DIMENSIONAL DATA						
	INCHES			MILLIMETERS		
DIM	MIN	MAX	REF	MIN	MAX	REF
A		3.438			87.33	
B	.350	.365		8.89	9.27	
C	.328	.359		8.33	9.12	
D		5.200			132.1	
E	5.500	6.100		139.7	154.94	
F	.700			17.78		
G						
H						
I						
J		2.500			63.5	
K			30°			
L	.185	.191		4.7	4.85	
M			1.250			31.75

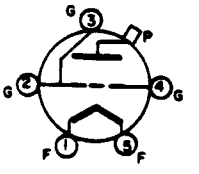
NOTES:

1. REF DIMENSIONS ARE FOR INFO ONLY & ARE NOT REQUIRED FOR INSPECTION PURPOSES.

2. METRIC EQUIVALENTS TO THE NEAREST .01mm, ARE GIVEN FOR GENERAL INFO ONLY & ARE BASED ON 1 INCH=25.4mm.

3. BASE PINS (L) ARE SO ALIGNED THAT THEY CAN BE FREELY INSERTED INTO A GAGE 1/4" THK. WITH HOLE DIAS. OF .204 LOCATED ON TRUE CENTERS BY THE GIVEN DIMS. (K) & (M)

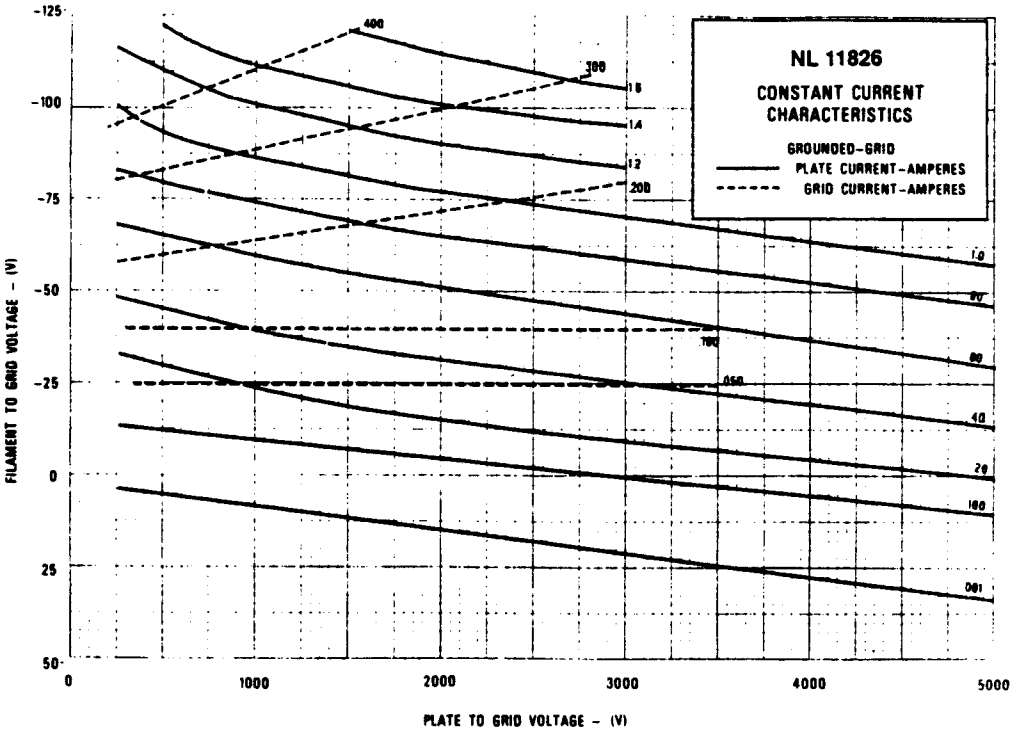


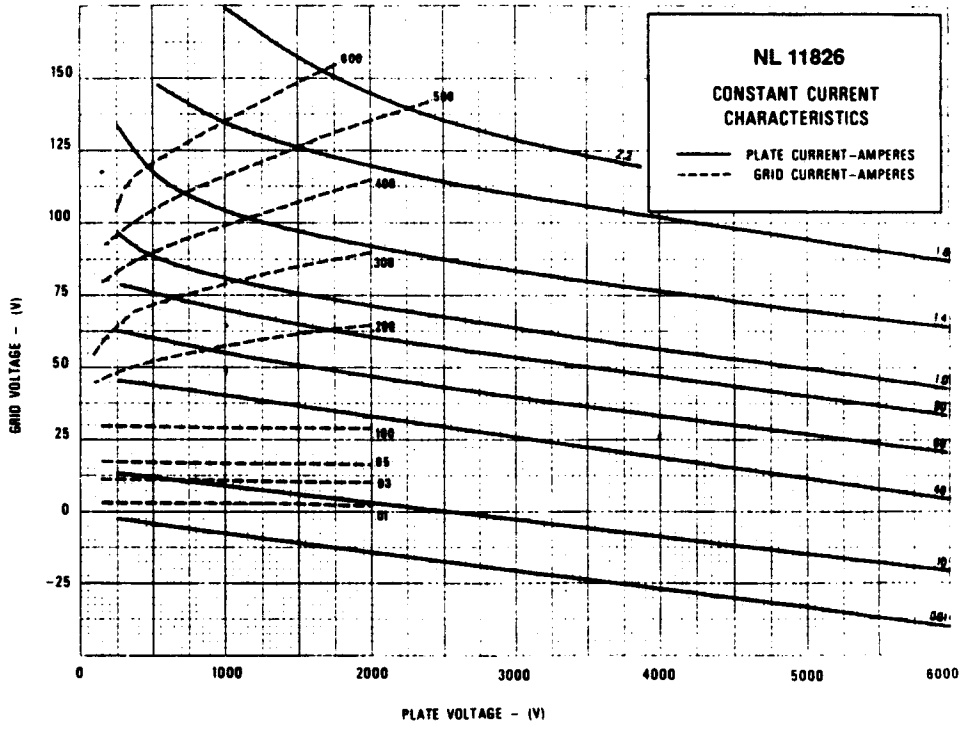


NATIONAL ELECTRONICS
A Division of Richardson Electronics, Ltd.
LaFox, IL 60147 • (708) 208-2300

NATIONAL

NL-11826
POWER TRIODE





NATIONAL ELECTRONICS
A Division of Richardson Electronics, Ltd.
LaFox, IL 60147 • (708) 208-2300