



F-7012
POWER TRIODE

DESCRIPTION

The F-7012 is a triode designed for use in high voltage pulse operation. The anode is forced air cooled, capable of dissipating 2.5 kilowatts during Continuous Commercial Service.

ELECTRICAL

Filament Voltage	15	Volts
Filament Current	36	Amperes
Filament Starting Current	72	Amperes
Amplification Factor		
$E_c = -200V$; $I_b = .2$ Amps	25	
Direct Interelectrode Capacitance		
Grid-Plate	14.2	μf
Grid-Filament	16.3	μf
Plate-Filament	1.9	μf

MECHANICAL

Mounting Position		Vertical, Anode Down
Type of Cooling		Forced Air
Anode Air Flow Required		
Plate Dissipation	2.5	2.0 1.5 Kilowatts
Air Flow	150	120 90 CFM
Pressure	2.5	1.6 .9 " of Water
Maximum Incoming Air Temperature . .		45°C
Maximum Glass Temperature		180°C
Net Weight (Approximate)		5-½ Pounds

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

RF Power Amplifier & Oscillator . . .	Pulsed Operation
---------------------------------------	------------------

Maximum Ratings, Absolute Values

DC Plate Voltage	17.5	KV Maximum
DC Grid Voltage	-5.0	KV Maximum
Peak Cathode Current	40	Amperes, Max
Duty Cycle	.030	Maximum
Plate Dissipation*	1.2	Kilowatts

*Air Flow - 75 cfm

Typical Operation

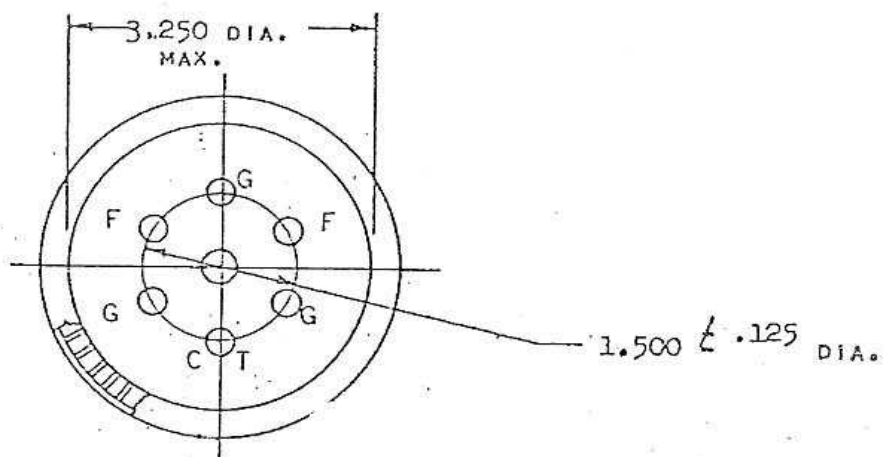
DC Plate Voltage	15,500	Volts
DC Grid Voltage (During Pulse)	-750	Volts
DC Plate Current	0.20	Amperes
DC Grid Current	.013	Amperes
Duty Cycle	.023	
Power Output (Approximate)	90	Kilowatts

Additional information for specific applications can be obtained from:

ITT ELECTRON TECHNOLOGY DIVISION
Applications Department
P.O. Box 100
Easton, Pennsylvania 18044-0100

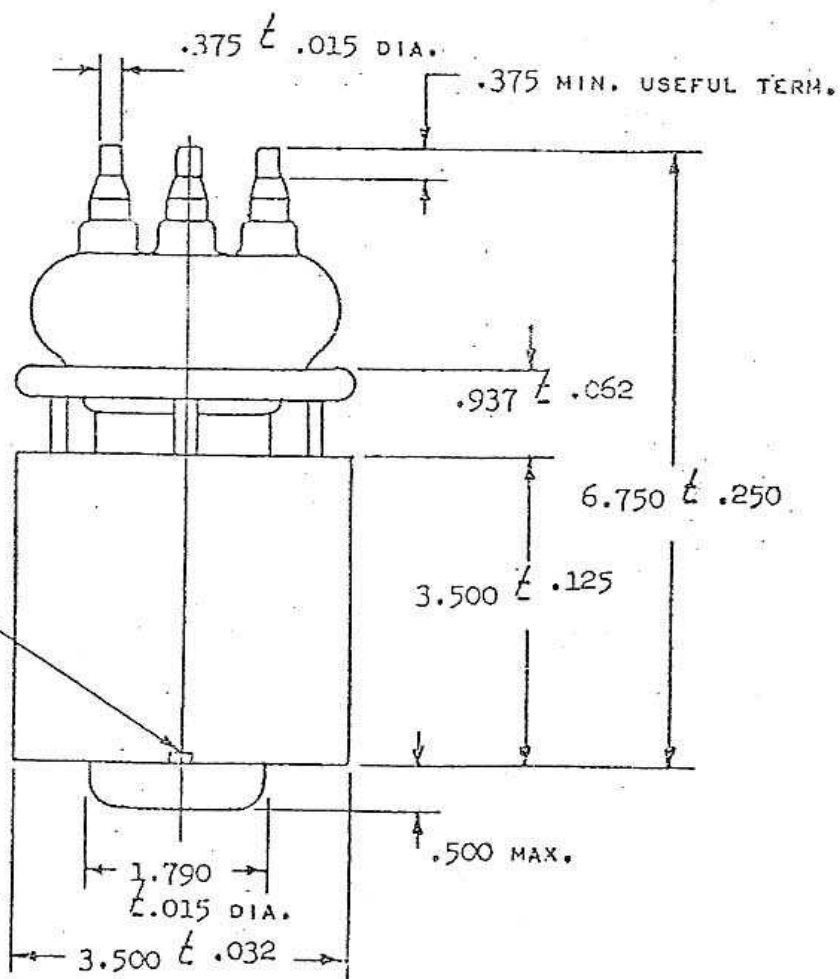
COLOR CODE

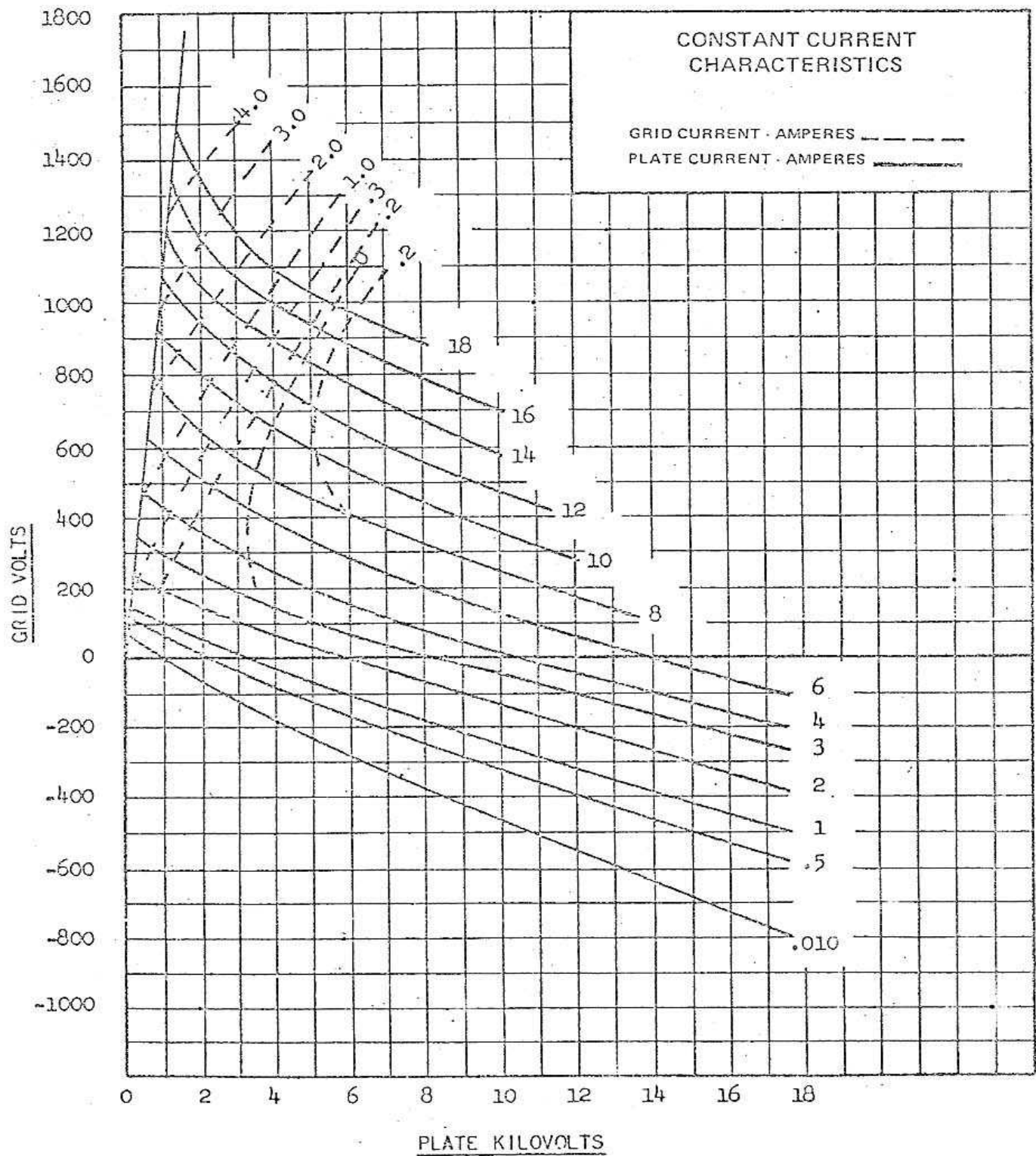
FIL. TERM. - YELLOW
 FIL. C. TERM. - RED
 GRID - BLACK



KEYWAY TO BE CENTERED
 WITHIN 5° ON SAME LINE
 AS FIL. CENTER TAP.

NOTE: TUBULATION TIP OFF
 TO BE 1/8 MIN. BELOW
 TERMINALS.





ADDENDUMTENTATIVE SPECIFICATIONPULSE MODULATOR SERVICEMaximum Ratings, Absolute Values

DC Plate Voltage	27 Kilovolts
Peak Positive Plate Voltage (Instantaneous)	30 Kilovolts
DC Grid Voltage*	-5 Kilovolts
Peak Positive Grid Voltage	4 Kilovolts
Grid Dissipation	150 Watts
Pulse Length	2000 μ sec
Pulse Cathode Current	30 Amperes
	**40 Amperes

*Approximately 1400 volts of negative grid bias is required to cut off plate current at a plate voltage of 27 kilovolts.

**Pulse cathode current of 40 amperes apply only under elevated filament voltage of 15.85 volts.