



communications

Electron Devices

L6122

Mini-Traveling Wave Tube

Features:

- 26 to 40 GHz
- 50 Watts Minimum 26-36 GHz

Performance Characteristics

Frequency	26 to 40 GHz
RF Output Power 26 – 36 GHz	50 W min
RF Output Power 26 – 40 GHz	30 W min
RF Input Power	23 dBm max
Small Signal Gain, 26-36 GHz	30 dB min
Small Signal Gain, 26-40 GHz	22 dB min
Intermodulation, 7dB back off	-23 dBc max
Noise Power Density	
Beam On	-30 dBm/MHz
Beam Off	-95 dBm/MHz
AM/PM Conversion	6°/dB max
Harmonics 26 - 40 GHz.....	-15 dBc max

Typical Operating Conditions

Duty	CW
Cathode Voltage	-7200 VDC
Cathode Current.....	110 mA
Helix Current	5 mA
Anode Voltage.....	0 to 1800 VDC
Anode Current.....	0.1 mA
Focus Electrode Voltage*	
Beam On	-15 VDC
Beam Off.....	-1000 VDC
Filament Voltage*	-6.3 VDC
Filament Current	0.5 A
Collector 1 Voltage*	2800 VDC
Collector 1 Current.....	50 mA
Collector 2 Voltage*	2100 VDC
Collector 2 Current.....	50 mA
Collector 3 Voltage*	1400 VDC
Collector 3 Current.....	110 mA
Prime Power.....	250 watts max.

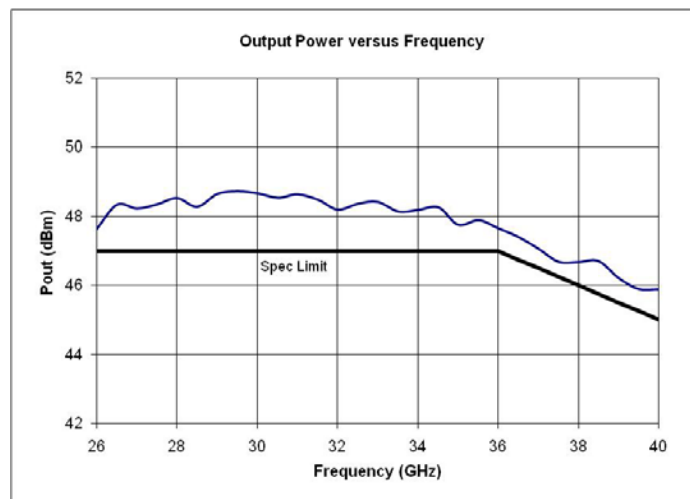
*with respect to cathode

Mechanical Description

Dimensions (unpacked)	6.0" x 2.0" x 1.0"
Weight	<1.5 lbs
Cooling.....	Conduction
RF Input Connector.....	2.9 mm (cable)
RF Output Connector	WR- 28

Preliminary Data

The L6122 is an unpackaged helix traveling tube with a power output of 50 watts minimum over the frequency range of 26 to 36 GHz and 30 watts minimum over the frequency range of 26 to 40 GHz. The TWT has a metal-ceramic vacuum envelope, a beam control element, a multi-stage depressed collector for high efficiency and utilizes periodic permanent magnet focusing. The L6122 is suitable for use in airborne, shipboard and ground-based applications. DS61220509



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