



Electron Devices

L6122

Mini-Traveling Wave Tube

Features:

- **30 to 36 GHz**
- **50 Watts Minimum**

Performance Characteristics

Frequency	30 - 36 GHz
RF Output Power	50 W min
RF Input Power	23 dBm max
Small Signal Gain	30 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	-15 dBc max

Typical Operating Conditions

Duty	CW
Cathode Voltage	-7100 VDC
Cathode Current	110 mA
Helix Current	3 mA
Helix Current (max.)	6 mA
Helix Current (typical at saturation)	3 mA
Anode Voltage	0 to -2000 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	15 mA
Collector 1 Current (max.)	50 mA
Collector 1 Current (typical at saturation)	15 mA
Collector 2 Voltage*	2100 VDC
Collector 2 Current	32 mA
Collector 2 Current (max.)	50 mA
Collector 2 Current (typical at saturation)	32 mA
Collector 3 Voltage*	1400 VDC
Collector 3 Current	40 mA
Collector 3 Current (max.)	110 mA
Collector 3 Current (typical at saturation)	40 mA
Prime Power	250 watts max.

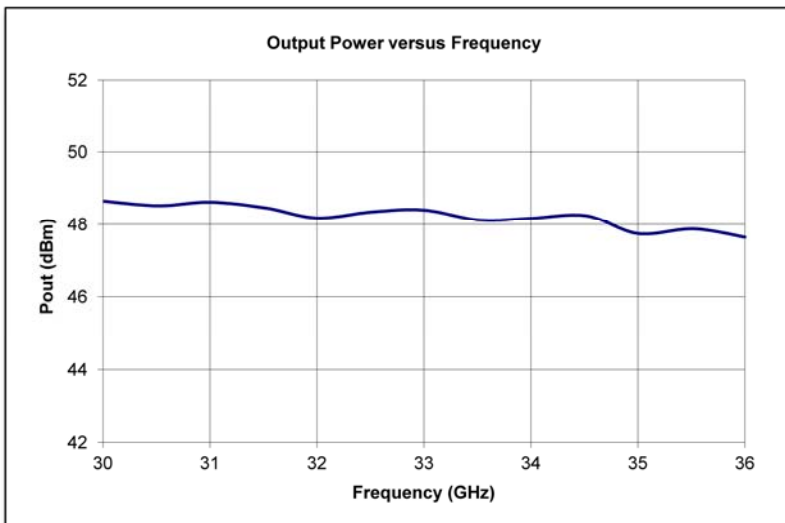
*with respect to cathode

Preliminary Data

The L6122 is an unpackaged helix traveling tube with a power output of 50 watts minimum over the frequency range of 30 to 36 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.

DS61220312

Typical Performance

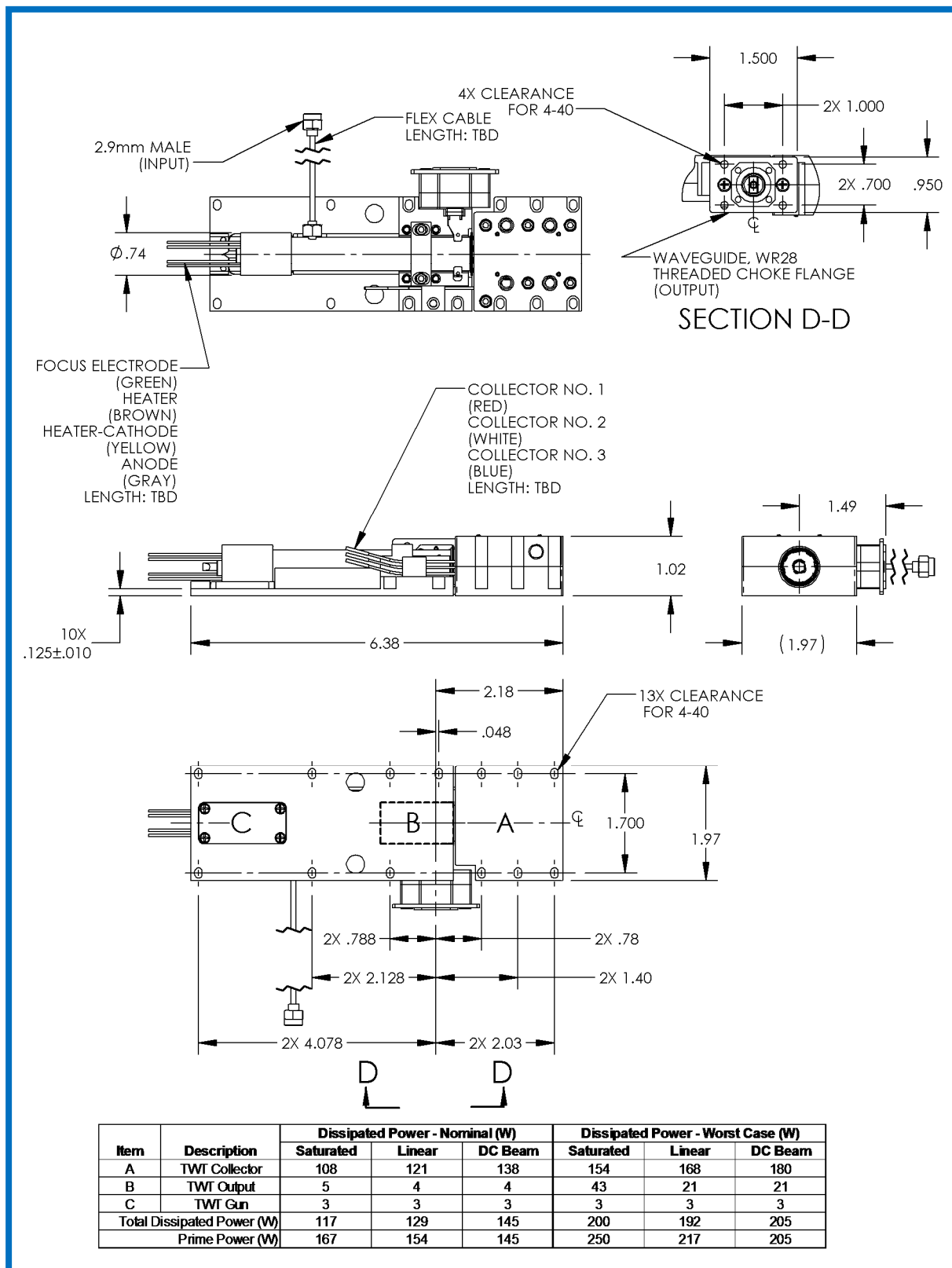


Mechanical Description

Dimensions (unpackaged)	See Outline
Weight	<1.5 lbs
Cooling	Conduction
RF Input Connector	2.9 mm (cable)
RF Output Connector	WR- 28

Cleared by DoD/OSR for public release
under 12-S-1951 on 5/08/2012

Outline Drawing L6122



Current detailed outline drawings are available on request. Specifications and features are subject to change without notice.



Electron Devices

Electron Devices
 960 Industrial Road, San Carlos, CA 94070
 (650) 591-8411 Fax: (650) 508-1956
 Web Site: www.L-3com.com/edd
 E-mail: scl.marketing@L-3com.com