



communications

Electron Devices

L6049

Mini-Traveling Wave Tube

Features:

- **4.5 to 18.0 GHz**
- **110 Watts Minimum**
- **30 dB Gain Minimum**

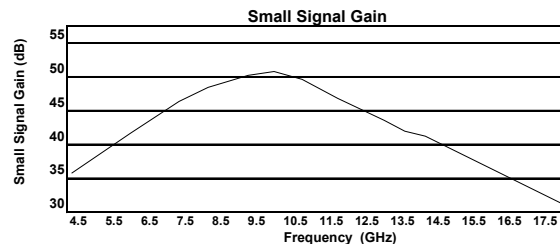
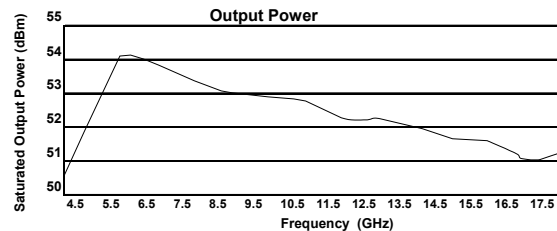
Performance Characteristics

Frequency	4.5 to 18.0 GHz
RF Output Power	110 W min
RF Input Power	29 dBm max
Small Signal Gain	30 dB min
Gain Tracking	±2.5 dB
Noise Power Density- Beam On	-30 dBm/MHz
AM/PM Conversion	6°/dB max
Harmonics -4.5 GHz	-3 dBc max
Harmonics -6.0 GHz	-8 dBc max

Typical Operating Conditions

Duty	CW
Cathode Voltage	-4800 ± 22 VDC
Cathode Current	260 mA max.
Helix Current- no RF	0.5 mA min., 3 mA max.
Helix Current-RF	13 mA max.
Beam Control	
Electrode Voltage	-1200 VDC
Electrode Current	1 mA
Filament Voltage	-6.3 VDC
Filament Current	0.8 A
Collector 1 Voltage	2740 ± 100 VDC
Collector 1 Current	2 mA min., 125 mA max.
Collector 2 Voltage	1780 ± 50 VDC
Collector 2 Current	100 mA min., 280 mA max.
Prime Power - no RF	450 watts max.
Prime Power - RF	575 watts max.

The L6049 is an unpackaged helix miniature traveling tube with a power output of 110 to 135 watts over the frequency range of 4.5 to 18.0 GHz. The tube 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 L6049 is suitable for use in airborne and shipboard applications. DS60491102



Mechanical Description

Dimensions*	9.0" x 1.8" x 1.5"
Weight	<1.5 lbs
Cooling	Conduction
Baseplate Temp	-54° C to +110° C
RF Input Connector	SMA
RF Output Connector	TNC
All voltages are with respect to cathode	
*Unpackaged	

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