



communications

Electron Devices

# L6035 Mini-Traveling Wave Tube

## Features:

- 4.5 to 18.0 GHz
- 35 Watts Minimum
- 30 dB Gain Minimum

## Performance Characteristics

Frequency.....	4.5 to 18.0 GHz
RF Output Power.....	35 W min
RF Input Power.....	22 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.....	-2 dBc max

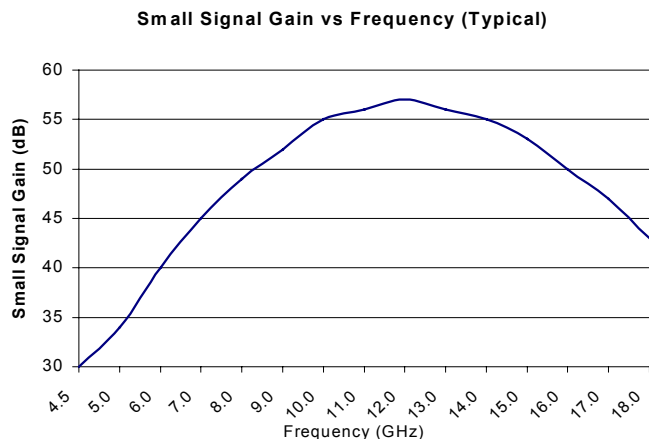
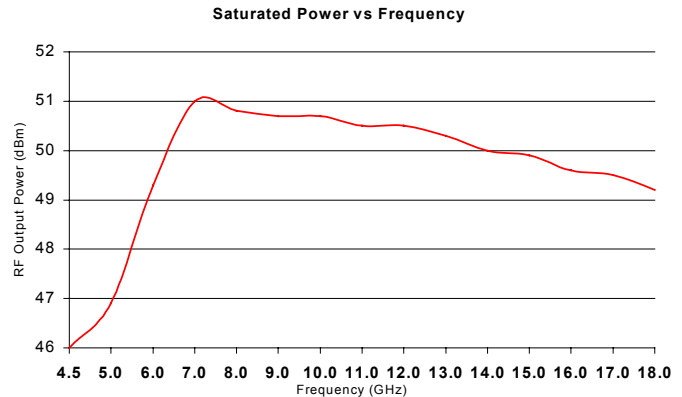
## Typical Operating Conditions

Duty.....	CW
Cathode Voltage.....	-4550 ± 22 VDC
Cathode Current.....	180 mA max
Helix Current- no RF.....	0.5 mA min, 3 mA max.
Helix Current-RF.....	13 mA max
Beam Control	
Electrode Voltage.....	-1000 VDC
Electrode Current.....	1 mA
Filament Voltage.....	-6.3 VDC
Filament Current.....	0.6A
Collector 1 Voltage.....	2400 ± 100 VDC
Collector 1 Current.....	2 mA min, 125 mA max
Collector 2 Voltage.....	1550 ± 50 VDC
Collector 2 Current.....	50 mA min, 180 mA max
Prime Power - no RF.....	270 watts max.
Prime Power - RF.....	370 watts max.

## Mechanical Description

Dimensions*.....	9.0" x 1.8" x 1.0"
Weight.....	<1.5 lbs
Cooling.....	Conduction
Baseplate Temp.....	-54° C to +110 ° C
RF Input Connector.....	SMA
RF Output Connector.....	TNC
All voltages with respect to cathode	*unpackaged

The L6035 is an unpackaged helix traveling tube with a power output of 35 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 L6035 is suitable for use in airborne and shipboard applications. DS60351102



Cleared by DoD/DFOISR for public release under 03-S-1347 05/01/02