L3’s L6122 is an unpackaged helix traveling wave tube with a power output of 50 W minimum over the frequency range of 30 GHz 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.

**KEY FEATURES**
- 30 GHz to 36 GHz frequency range
- 50 W minimum

**SPECIFICATIONS**

**PERFORMANCE**
- Frequency: 30 GHz to 36 GHz
- RF Output Power: 50 W min
- RF Input Power: 23 dBm max
- Small Signal Gain: 30 dB min
- Intermodulation: 7 dB 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

**INTERFACE**
- Duty: CW
- Cathode Voltage: -7.1 kV
- Cathode Current: 110 mA
- Helix Current: 3 mA
- Helix Current**: 6 mA max
- Helix Current**: 3 mA
- Anode Voltage: 0 to -2,000 VDC
- Anode Current: 0.1 mA
- Focus Electrode Voltage*: Beam On: -15 VDC, Beam Off: -1,000 VDC
- Filament Voltage*: -6.3 VDC
- Filament Current: 0.5 A
- Collector 1 Voltage*: 2.80 kV
- Collector 1 Current: 15 mA
- Collector 1 Current**: 50 mA max
- Collector 1 Current**: 15 mA
- Collector 2 Voltage*: 2.10 kV
- Collector 2 Current: 32 mA
- Collector 2 Current**: 32 mA
- Collector 3 Voltage*: 1.40 kV
- Collector 3 Current: 40 mA
- Collector 3 Current**: 40 mA
- Prime Power: 250 W max

**MECHANICAL**
- Dimensions (unpackaged): See outline
- Weight: < 1.5 lb.
- Cooling: Conduction
- RF Input Connector: 2.9 mm (cable)
- RF Output Connector: WR-28

*With respect to cathode
**Typical at saturation
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