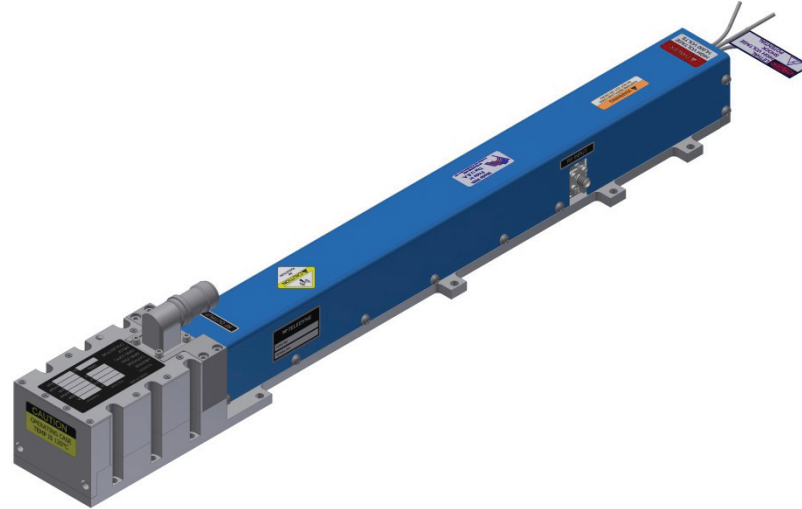


MEC 3094A

Pulse TWT

5.35 GHz – 5.65 GHz

- 4% Maximum Duty
- 8 kW Minimum Power
- 5.35 to 5.65 GHz
- 1000 W Typ. Prime Power @4%
- 46 dB Typical Gain
- 21.25" L x 2.55" W x 3.25" H
(54 x 6.48 x 8.26 cm)
- Phase Match Available



RF Performance

| Freq (GHz) | Typ. Sat. Power Output (W) | Min. Spec. Power Output (W) | Typ. Gain @ Spec. Power (dB) |
|------------|----------------------------|-----------------------------|------------------------------|
| 5.35 | 8510 | 8000 | 46 |
| 5.40 | 8130 | 8000 | 46 |
| 5.45 | 7800 | 8000 | 46 |
| 5.50 | 8200 | 8000 | 46 |
| 5.55 | 8300 | 8000 | 46 |
| 5.60 | 8200 | 8000 | 46 |
| 5.65 | 8100 | 8000 | 46 |

Typical power output is shown to illustrate capability.
Typical gain shown is without equalizer.

| Typical Operating Conditions Element | Voltage | Current | Power Supply Requirements | | |
|---|----------|----------|---------------------------|--------------|---------------|
| | | | Voltage Min. | Voltage Max. | Current Max. |
| Heater | -6.3 Vdc | 2.25 Apk | -6.0 Vdc | -6.6 Vdc | 3.0 A |
| Helix | | | | | |
| with RF | Ground | 300 mApk | Ground | Ground | 500 mApk @ 4% |
| without RF | Ground | 80 mApk | Ground | Ground | 500 mApk @ 4% |
| Grid On | 180 Vpk | 1.8 mApk | 100 Vpk | 250 Vpk | 30 mApk |
| Grid Off | -300 Vdc | 0 mA | -300 Vdc | -300 Vdc | 1 mApk |
| Cathode (Ek) | -14.0 kV | 2.3 Apk | -13.5 kV | -14.5 kV | 2.8 Apk |
| Collector | | | | | |
| w/RF | 10.3 kV | 2.0 Apk | 73.5% x Ek ±2% | | 2.8 Apk |
| w/o RF | 10.3 kV | 2.2 Apk | 73.5% x Ek ±2% | | 2.8 Apk |

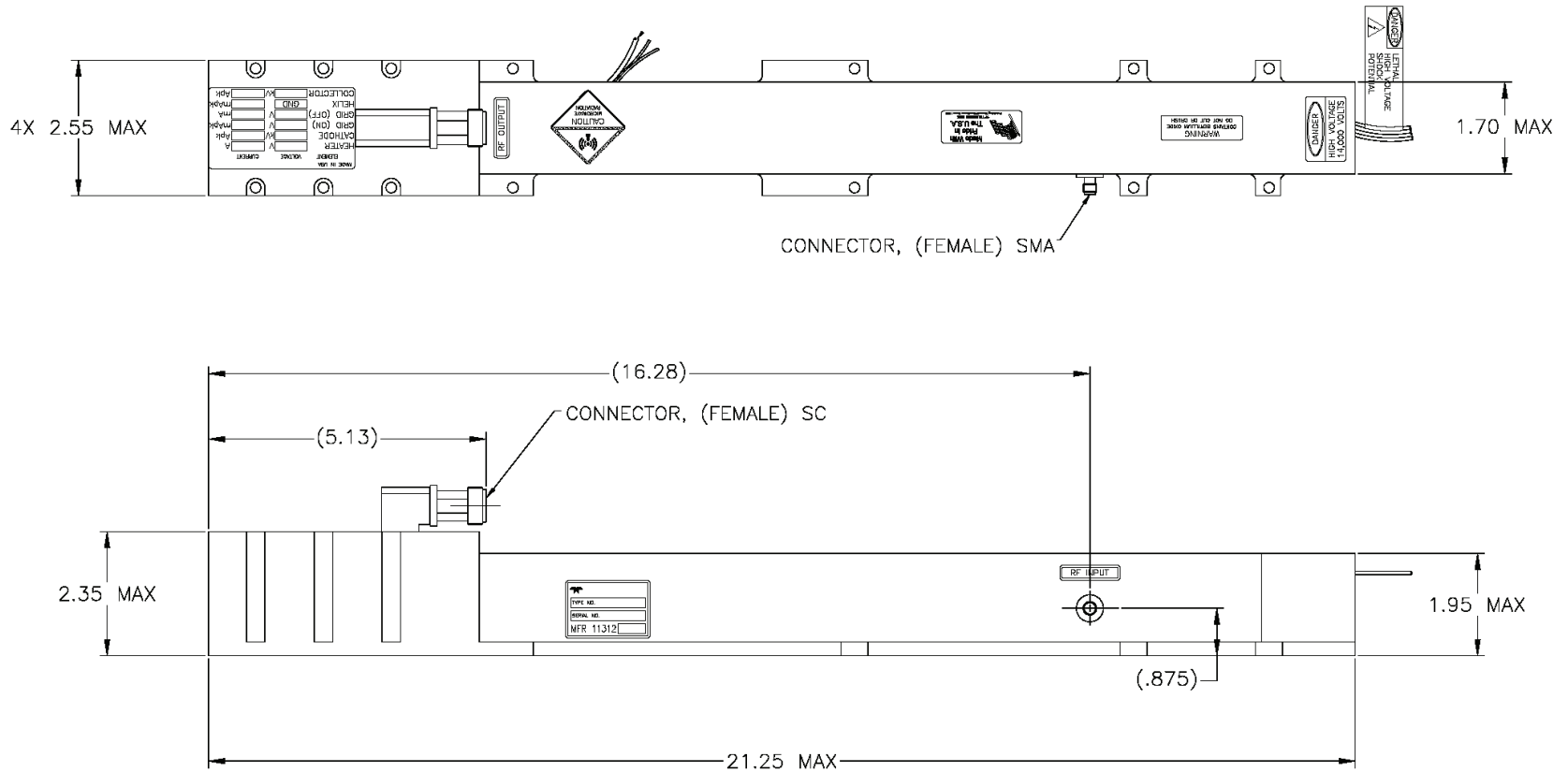
Cathode voltage is measured with respect to ground.
Heater, Collector, and Grid voltages are measured with respect to Cathode.

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| Performance | Typical | Spec |
|--|---------|--------|
| Input VSWR..... | 1.3:1 | 2:1 |
| Output VSWR..... | 1.5:1 | 2:1 |
| Max. Duty | — | 4% |
| Max. Pulsewidth | — | 100 μs |
| Grid Capacitance..... | 40 pF | 60 pF |
| Noise Power Density (dBm/MHz) | -35 | -10 |
| Prime Power..... | 1000 W | 1100 W |

NOTES:

1. THERMOSTAT OPTIONS: N/C OR N/O



SUBJECT TO CHANGE W/O NOTICE ISO 9001:2008 Registered

| |
|---|
| TELEDYNE MICROWAVE SOLUTIONS TWT Products 11361 Sunrise Park Dr., Rancho Cordova, CA 95742 (916) 638-3344 |
| TITLE |
| MEC 3094A |

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