



## ELECTRONIC TUBE REFERENCE

# F2085

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA

**1 SECTION**

CONSTRUCTION

**TRAVELINGWAVE**

Rugged metal-ceramic PPM-focused traveling-wave power amplifier covering 7-11 GHz, delivering at least approximately 1 kW peak output.

## GENERAL CHARACTERISTICS

|                     |                   |                      |               |
|---------------------|-------------------|----------------------|---------------|
| BASE DESIGNATION    | —                 | BASE PINS            | —             |
| NOMINAL HEATER      | 6.3 V / 3.1 A     | PARALLEL HEATER      | — / —         |
| HEATING             | Indirect          | SERIES OPERATION     | Not specified |
| CATHODE ARRANGEMENT | Separate cathodes | SECTION CONSTRUCTION | Similar       |

## SECTION RATINGS

|                                |         |
|--------------------------------|---------|
| <b>SECTION 1</b> TravelingWave |         |
| MAXIMUM PLATE VOLTAGE          | 11000 V |
| MAXIMUM CATHODE CURRENT        | 1.7 A   |

The F-2085 is a rugged metal-ceramic, PPM-focused traveling-wave amplifier covering 7-11 GHz with at least 1 kW peak output and 34 dB gain.

## SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

# 1962 ITT

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1962 ITT

## Section 1 · TravelingWave

| CHARACTERISTIC                  |                 |                  |
|---------------------------------|-----------------|------------------|
| PARAMETER                       | PUBLISHED VALUE | CONDITION / NOTE |
| Frequency Range                 | 7.0-11.0 GHz    | —                |
| Gain at 1 kW Peak Power Minimum | 34 dB           | —                |
| Small-Signal Gain Minimum       | 40 dB           | —                |
| Heater Voltage                  | 6–6.6 V         | —                |
| Heater Current                  | 3 A–4 A         | —                |
| Grid Bias Voltage               | -200--90 V      | —                |
| Grid Pulse Voltage              | 160–270 V       | —                |

| OTHER                     |                 |                  |
|---------------------------|-----------------|------------------|
| PARAMETER                 | PUBLISHED VALUE | CONDITION / NOTE |
| Peak Output Power Typical | 1200 W          | —                |
| Peak Output Power Minimum | 1000 W          | —                |
| Maximum Duty Cycle        | 0.01            | —                |
| Maximum Pulse Width       | 10 us           | —                |
| Cathode Voltage           | -11--9.5 kV     | —                |
| Cathode Current Peak      | —1.7 A          | —                |
| Grid Current Peak         | —400 mA         | —                |

| CAPACITANCE                |                 |                  |
|----------------------------|-----------------|------------------|
| PARAMETER                  | PUBLISHED VALUE | CONDITION / NOTE |
| Grid Capacitance to All    | —25 pF          | —                |
| Cathode Capacitance to All | —25 pF          | —                |

## TUBE TINKER

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and their source documents.

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