



ELECTRONIC TUBE REFERENCE

CMA1261

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRAVELINGWAVE

Rugged liquid-cooled M-type Carcinotron backward-wave oscillator, electronically tunable across approximately 14.5–17.5 GHz with integral permanent-magnet focusing and at least 80 W RF output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.5 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 TravelingWave	
MAXIMUM CATHODE CURRENT	300 mA
<i>Crossed-field backward-wave oscillator section. Fixed schema has no line/sole/beam-voltage promoted fields; line current is stored in MaxCathodeCurrent as the published electron-stream current, with complete specialized values in parameters.</i>	

The Thomson-CSF CMA1261 is a rugged, compact M-type Carcinotron: an electronically tunable cross-field backward-wave oscillator with integral permanent-magnet focusing, liquid cooling, and at least 80 W output over 14.50–17.50 GHz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1972 Thomson CSF

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

1972 THOMSON CSF

Section 1 · TravelingWave

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	1 A–2 A	—
Frequency range	14.5–17.5 GHz	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum RF output power	80 W	Frequency=14.5-17.5GHz
Warm-up time minimum	3 min	—
Typical heater current	1.5 A	—
Typical sole voltage	-1.3 kV	—
Typical anode voltage, low-frequency end	1.61 kV	—
Typical anode voltage, high-frequency end	1.6 kV	—
Typical line voltage, low-frequency end	2.1 kV	—
Typical line voltage, high-frequency end	3.35 kV	—
Typical line current	300 mA	—
Typical RF output power, low-frequency end	110 W	—
Typical RF output power, high-frequency end	160 W	—
Heater voltage limit minimum	6 V	—
Heater voltage limit maximum	6.6 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Sole-to-all-other-electrodes capacitance maximum	30 pF	—
Anode-to-all-other-electrodes capacitance maximum	10 pF	—
Line-to-all-other-electrodes capacitance maximum	30 pF	—

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