



ELECTRONIC TUBE REFERENCE

7870

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power transmitting tube intended for RF power amplification and communications service, with compact construction and useful high-frequency performance.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 1 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
TRANSCONDUCTANCE	0.0075 S
MAXIMUM PLATE VOLTAGE	750 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM CATHODE CURRENT	70 mA
<i>Published ratings/characteristics promoted from supplied datasheet.</i>	

The 7870 is a beam-power transmitting tube. The supplied datasheet was processed for heater or filament data, maximum ratings, operating characteristics, capacitances where published, and service-specific power or frequency data.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum DC Plate Voltage	750 V	Inherited from explicitly referenced 7801 parent except heater characteristics
Maximum DC Screen Voltage	250 V	Inherited from explicitly referenced 7801 parent except heater characteristics
Maximum DC Plate Current	70 mA	Inherited from explicitly referenced 7801 parent except heater characteristics
Maximum Plate Input	52.5 W	Inherited from explicitly referenced 7801 parent except heater characteristics
Maximum Screen Input	2 W	Inherited from explicitly referenced 7801 parent except heater characteristics
Typical DC Plate Voltage	650 V	Inherited from explicitly referenced 7801 parent except heater characteristics
Typical DC Screen Voltage	225 V	Inherited from explicitly referenced 7801 parent except heater characteristics
Power Output at 400 MHz	27 W	Inherited from explicitly referenced 7801 parent except heater characteristics
Power Output at 1200 MHz	15 W	Inherited from explicitly referenced 7801 parent except heater characteristics
Power Output at 3000 MHz	3.2 W	Inherited from explicitly referenced 7801 parent except heater characteristics

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	7500 μ S	Inherited from explicitly referenced 7801 parent except heater characteristics
Mu Factor, Screen to Control Grid	30	Inherited from explicitly referenced 7801 parent except heater characteristics

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 to Plate Capacitance	0.025 pF	Inherited from explicitly referenced 7801 parent except heater characteristics

TUBE TINKER

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