



ELECTRONIC TUBE REFERENCE

8890

Power - Beam (NOT sweep) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL
DATA**1 SECTION**
CONSTRUCTION
BEAMPOWER

Beam-power transmitting tube for substantial RF amplifier service, combining high-voltage operation with power-handling capability for professional transmitting equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	5.7 V / 125 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
MAXIMUM PLATE VOLTAGE	8000 V
MAXIMUM SCREEN VOLTAGE	1650 V
MAXIMUM PLATE DISSIPATION	5000 W
MAXIMUM SCREEN DISSIPATION	250 W
MAXIMUM CATHODE CURRENT	5 A
<i>Published ratings, characteristics, and operating data promoted from supplied datasheet.</i>	

The 8890 is a high-power linear beam-power RF/television tube. The supplied datasheet provides heater or filament data, maximum ratings, operating conditions, RF output information, and interelectrode capacitances where applicable.

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	8000 V	Up to 400 MHz
Maximum DC Screen Voltage	1650 V	Up to 400 MHz
Maximum DC Control-Grid Voltage	-450 V	Up to 400 MHz
Maximum DC Plate Current	5 A	—
Maximum Control-Grid Input	150 W	—
Maximum Screen Input	250 W	—
Plate Dissipation	5000 W	—
Typical Plate Voltage	6500 V	Grid-drive circuit at 108 MHz
Typical Screen Voltage	1000 V	Grid-drive circuit at 108 MHz
Typical Plate Current	2.35 A	Grid-drive circuit at 108 MHz
Driver Power Output	60 W	Grid-drive circuit at 108 MHz
Useful Power Output	10000 W	Grid-drive circuit at 108 MHz
TV Synchronizing-Level Plate Voltage	5030 V	Cathode drive at 216 MHz
TV Synchronizing-Level Useful Power Output	7000 W	Cathode drive at 216 MHz
TV Blanking-Level Useful Power Output	3940 W	Cathode drive at 216 MHz

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mu Factor, Screen to Control Grid	20	—
Grid-No.1 to Plate Capacitance	0.4 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 to Filament Capacitance	70 pF	—
Plate to Filament Capacitance	0.05 pF	—
Grid-No.1 to Screen Capacitance	95 pF	—
Screen to Plate Capacitance	12 pF	—
Screen to Filament Capacitance	2.5 pF	—
Minimum Heating Time	15 s	—

TUBE TINKER

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