

ELECTRONIC TUBE REFERENCE

GL8500

Power - Tetrode (NOT beam) (over 1000V 100W) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TETRODE

Forced-air-cooled metal-ceramic RF power tetrode for grounded-grid Class-B linear and Class-C amplifier or oscillator service to approximately 1250 MHz or higher.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 3.8 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
AMPLIFICATION FACTOR	45
MAXIMUM PLATE VOLTAGE	1250 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	500 W
MAXIMUM GRID DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	1.75 A
Promoted fields mapped from printed ratings/characteristics headings; specialized published data retained in parameter rows.	

Forced-air-cooled metal-ceramic RF power tetrode for grounded-grid Class-B linear and Class-C amplifier/oscillator service to about 1250 MHz or higher.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage bogey	6.3 V	—
Heater current	3.8 A	—
Maximum useful frequency	1250 MHz	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage maximum	6.8 V	—
Heater voltage minimum at UHF	5.5 V	—
Cathode heating time minimum	1 min	—
Peak cathode current maximum	1.75 A	—
Plate dissipation maximum	500 W	—
Ceramic temperature maximum	200 C	—
Anode-seal temperature maximum	250 C	—
Class-B plate voltage maximum	2000 V	ClassB
Class-B screen voltage maximum	320 V	ClassB
Class-B plate current maximum	250 mA	ClassB
Class-B plate input maximum	500 W	ClassB
Class-B screen input maximum	5 W	ClassB
Class-B typical frequency range	225 to 400 MHz	ClassB
Class-B plate voltage	1750 V	ClassB

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class-B screen voltage	250 V	ClassB
Class-B control-grid voltage	-20 V	ClassB
Class-B peak RF plate voltage	1250 V	ClassB
Class-B peak RF control-grid voltage	40 V	ClassB
Class-B plate current	200 mA	ClassB
Class-B zero-signal plate current	20 mA	ClassB
Class-B screen current	5 mA	ClassB
Class-B control-grid current	10 mA	ClassB
Class-B driving power	5 W	ClassB
Class-B RF output power	110 W	ClassB
Class-C maximum plate voltage at 900 MHz	1600 V	ClassC
Class-C maximum plate voltage at 400 MHz	2000 V	ClassC
Class-C maximum screen voltage	320 V	ClassC
Class-C maximum control-grid voltage	-100 V	ClassC
Class-C maximum plate current	300 mA	ClassC
Class-C maximum control-grid current	50 mA	ClassC
Class-C plate input maximum at 900 MHz	480 W	ClassC
Class-C plate input maximum at 400 MHz	600 W	ClassC
Class-C screen input maximum	15 W	ClassC
Class-C typical plate voltage at 900 MHz	1500 V	ClassC
Class-C typical screen voltage at 900 MHz	210 V	ClassC
Class-C typical control-grid voltage at 900 MHz	-40 V	ClassC
Class-C typical plate current at 900 MHz	300 mA	ClassC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Class-C typical screen current at 900 MHz	10 mA	ClassC
Class-C typical control-grid current at 900 MHz	20 mA	ClassC
Class-C typical driving power at 900 MHz	14 W	ClassC
Class-C typical output power at 900 MHz	205 W	ClassC
Class-C typical plate voltage at 400 MHz	2000 V	ClassC
Class-C typical screen voltage at 400 MHz	225 V	ClassC
Class-C typical plate current at 400 MHz	250 mA	ClassC
Class-C typical driving power at 400 MHz	15 W	ClassC
Class-C typical output power at 400 MHz	300 W	ClassC

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-plate capacitance	0.006 pF	—
Input capacitance with control grid tied to screen	19.5 pF	—
Output capacitance with control grid tied to screen	6.4 pF	—

CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cooling method	Forced air	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF power amplifier / oscillator / communications final or driver	—



SOURCE DATA APPENDIX

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO
Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
G; to G, E,=	1000 V	G; to G, E,=1000V comlantg Air Tlc;n:
=	275 V	. =275V DC; perature, mini-)
2-4-;' 1 ANODE HUB TEMPERATURE !	1301 A	2-4-;' 1 ANODE HUB TEMPERATURE ! 1301A. ——]
Diameter A	0.03 in	Diameter A 0,030 inches
Diameter B	0.016 in	Diameter B 0,016 inches when inserted over the cathode and filament terminal,
Diameter C	0.036 in	Diameter C 0,036 inches gage #2 shall contact the tube REFERENCE SURFACE
Diameter D	0.042 in	Diameter D 0,042 inches
ment terminal diameter (C)	0.016 in	ment terminal diameter (C) - 0,016 inches,

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitances proximate..... 0.9 0.5	0.2 in	Capacitances proximate..... 0.9 0.5 0.2 Inches-

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

Catalog Tube types Full books Blog Feedback & corrections

© 2026 Tube Tinker