



ELECTRONIC TUBE REFERENCE

2C46

Voltage - Triode (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Indirectly heated disk-seal UHF oscillator triode for 1000–1200 MHz cavity service; μ 60, gm 3.5 mS.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	6
NOMINAL HEATER	6.3 V / 750 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
PLATE RESISTANCE	17142.85714285714 Ω
TRANSCONDUCTANCE	0.0035 S
AMPLIFICATION FACTOR	60
MAXIMUM PLATE VOLTAGE	500 V
MAXIMUM PLATE DISSIPATION	12 W
<i>GE/RMA maximum DC plate current 40 mA (not specified as maximum cathode current). Published gm 3500 μmhos at $I_b=14$ mA, μ 60; promoted $r_p=\mu/gm=17142.86$ ohms is calculated, not separately specified. Typical CW: plate 150 V, 8 mA, dissipation 1.18 W, RF output ~20 mW. Maximum seal temperature 200 °C; interelectrode capacitances and RF cathode connection specified.</i>	

The General Electric 2C46 is an indirectly heated disk-seal UHF triode intended for stable cavity local-oscillator service at approximately 1000–1200 MHz. Heater: 6.3 V, 0.75 A. Amplification factor 60, transconductance 3500 μ mhos at 14 mA plate current. Maximum plate voltage 500 V, plate dissipation 12 W and DC plate current 40 mA. Typical CW oscillator: 150 V plate, 8 mA plate current, 1.18 W dissipation, about 20 mW RF output. Maximum seal temperature 200 °C.

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	6.3 V	—
HeaterOrFilamentCurrentNominal	750 mA	—
MaxPlateVoltage	500 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate current	40 mA	Maximum DC plate current
Amplification Factor	60	Average amplification factor
Transconductance	3500 μ mho	Grid-plate transconductance at DC plate current 14 mA
Grid-to-plate capacitance	1.7 pF	Direct grid-plate capacitance
Grid-to-cathode capacitance	2.2 pF	Direct grid-cathode capacitance
Plate-to-cathode capacitance	0.025 pF	Maximum plate-cathode capacitance
Seal Temperature	200 °C	Maximum seal temperature
Power Output	20 mW	Approximate CW oscillator RF output power
Frequency	1100 MHz	Typical CW oscillator frequency; datasheet maximum rating 1300 MHz