



ELECTRONIC TUBE REFERENCE

6CM4

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TRIODE

Telefunken 6CM4 indirectly heated grounded-grid UHF amplifier triode for frequencies up to 800 MHz, with 14 mA/V transconductance.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 170 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Triode	
TRANSCONDUCTANCE	0.014 S
AMPLIFICATION FACTOR	68
MAXIMUM PLATE VOLTAGE	220 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	20 mA
Telefunken 6CM4 1959 JEDEC #2405 and Amperex 1963: grounded-grid UHF triode for amplification to 800 MHz. Heater 6.3 V 0.17 A; typical plate 175 V, grid -1.5 V, Ia 12 mA, gm 14000 μmhos = 0.014 A/V, mu 68. Maximum plate 220 V, dissipation 2.2 W, cathode current 20 mA, negative grid voltage magnitude 50 V, grid-circuit resistance 1 MΩ. Equivalent noise resistance ~230 Ω, at 100 MHz transconductance phase -7 degrees and additional grid noise conductance 0.5 mmhos. Nine-pin grounded-grid electrode connections and interelectrode capacitances are in manufacturer sheet. Plate resistance not specified; leave null.	

6CM4 is listed in the supplied Amperex material as a high-gain frame-grid UHF triode. Published operating conditions and characteristics were captured from the supplied table.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1959 Telefunken

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

1959 TELEFUNKEN

Section 1 · Triode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum frequency	800 MHz	—

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Grounded-grid UHF amplifier	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	175 V	Published table
Control-grid bias	-1.5 V	Published table
Plate current	12 mA	Published table

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	14000 μ S	Published table
Heater voltage	6.3 V	Published heater rating

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	170 mA	Published heater rating