

ELECTRONIC TUBE REFERENCE

5CM8

Voltage - Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

High-mu triode plus sharp-cutoff pentode, heater variant of the 6CM8.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DZ	BASE PINS	9
NOMINAL HEATER	4.7 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9DZ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	B	K – Cathode	CONNECTED
PIN2 – Pin 2	B	G1 – Control Grid	CONNECTED
PIN3 – Pin 3	B	P – Plate (Anode)	CONNECTED
PIN4 – Pin 4	–	H – Heater	CONNECTED
PIN5 – Pin 5	–	H – Heater	CONNECTED
PIN6 – Pin 6	A	G1 – Control Grid	CONNECTED
PIN7 – Pin 7	A	G3 – Suppressor Grid	CONNECTED
PIN7 – Pin 7	A	K – Cathode	CONNECTED
PIN7 – Pin 7	–	IS – Internal Screen	CONNECTED
PIN8 – Pin 8	A	G2 – Screen Grid	CONNECTED
PIN9 – Pin 9	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	50000 Ω
TRANSCONDUCTANCE	0.002 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W
<i>Electrical characteristics cloned from explicit counterpart 6CM8; heater replaced by 5CM8 source values. High-mu triode section.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.0062 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
<i>Electrical characteristics cloned from explicit counterpart 6CM8; heater replaced by 5CM8 source values. Sharp-cutoff pentode section; grid-2 operating voltage is rating-chart limited.</i>	

High-mu triode plus sharp-cutoff pentode, heater variant of 6CM8.

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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	1.9 pF	—
Input capacitance	1.6 pF	—
Output capacitance	0.22 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	250 V	ClassA
Grid #1 voltage	-2 V	ClassA
Plate current	1.8 mA	ClassA
Heater/filament voltage	4.7 V	DerivativeSheet
Heater/filament current	600 mA	DerivativeSheet
Heater warm-up time	11 s	ControlledWarmup

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Section 2 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1-to-plate capacitance	0.04 pF	—
Input capacitance	6 pF	—
Output capacitance	2.6 pF	—
Pentode plate to triode grid capacitance	0.01 pF	Coupling
Pentode grid #1 to triode plate capacitance	0.15 pF	Coupling

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode plate to triode plate capacitance	0.1 pF	Coupling

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA
Grid #2 voltage	150 V	ClassA
Grid #1 voltage	0 V	ClassA
Cathode bias resistor	180 ohm	ClassA
Plate current	9.5 mA	ClassA
Grid #2 current	2.8 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1 voltage at 10 uA plate current	-8 V	—

TUBE TINKER

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