



ELECTRONIC TUBE REFERENCE

6187

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Premium ruggedized dual-control pentode for converter, modulator, gating, and AF, IF, or RF amplifier applications. Its independently connected suppressor grid acts as a second control electrode, enabling mixing and switching in demanding airborne equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7CM	BASE PINS	7
NOMINAL HEATER	6.3 V / 175 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7CM - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – G1	A	G1 – Control Grid	CONNECTED
PIN2 – K	A	K – Cathode	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – P	A	P – Plate (Anode)	CONNECTED
PIN6 – G2	A	G2 – Screen Grid	CONNECTED
PIN7 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – IS	A	IS – Internal Screen	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.0032 S
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM SCREEN VOLTAGE	130 V
MAXIMUM PLATE DISSIPATION	1.65 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published ratings and characteristics promoted where clearly stated; identical repeated sections compressed where applicable.</i>	

Ruggedized sharp-cutoff dual-control pentode voltage amplifier with a separately connected suppressor grid for converter, modulator, gating, AF, IF and RF applications in military and industrial airborne equipment.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	6.3 V	Published nominal value
Heater or filament current	175 mA	Published nominal or representative value
Transconductance	3200 μ S	Published characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	1.65 W	Published maximum rating



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	175 mA	—
Maximum grid 3 voltage	30 V	—
Plate voltage	120 V	—
Grid 3 voltage	0 V	—
Screen voltage	120 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 voltage	-2 V	—
Plate current	5.2 mA	—
Screen current	3.5 mA	—
Maximum plate voltage	200 V	—
Maximum screen voltage	155 V	—
Maximum plate dissipation	1.65 W	—
Maximum screen dissipation	0.55 W	—
Maximum cathode current	20 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate transconductance	3200 μ S	—
Grid3-to-plate transconductance	470 μ S	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate capacitance maximum	0.025 pF	—
Input capacitance	3.9 pF	—
Output capacitance	2.2 pF	—

TUBE TINKER

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