



ELECTRONIC TUBE REFERENCE

8068

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam pentode developed specifically as a series regulator for high-voltage power supplies, combining a 3.5 kV plate rating with useful transconductance for stabilized supply control.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	54500 Ω
TRANSCONDUCTANCE	0.0052 S
MAXIMUM PLATE VOLTAGE	3500 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	35 W
MAXIMUM SCREEN DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	100 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
<i>Promoted fields mapped by printed headings; additional data retained in parameters.</i>	

The 8068 is a beam pentode developed specifically as a series regulator in high-voltage power supplies, combining a 3.5 kV plate rating with useful transconductance.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	600 V	SeriesRegulator

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	54500 ohm	Typical
Transconductance	5200 uS	Typical



SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.6 pF	WholeTube
Input capacitance	10 pF	WholeTube
Output capacitance	5.5 pF	WholeTube
Grid To Plate	0.6 pf	PublishedTable
Limits Of Applied Voltage - Ac Or Dc	0.6 VOLTS	PublishedTable
Plate Voltage	3500 VOLTS	PublishedTable

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 2 Voltage	2 VOLTS	PublishedTable
Plate Dissipation	35 WATTS	PublishedTable
Grid 2 Dissipation	1 WATTS	PublishedTable
Dc Cathode Current	100 MA	PublishedTable
Grid 1 Circuit Resistance	0.1 MEGOHMS	PublishedTable
Plate Voltage	600 VOLTS	PublishedTable
Grid 2 Voltage	125 VOLTS	PublishedTable
Grid 1 Voltage	-7.5 VOLTS	PublishedTable
Plate Current	36 MA	PublishedTable
Grid 2 Current	1 MA	PublishedTable

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	600 V	WholeTube
Grid 2 voltage	125 V	WholeTube
Grid 1 voltage	-7.5 V	WholeTube
Plate current	36 mA	WholeTube
Grid 2 current	1 mA	WholeTube
Maximum Heater-Cathode Voltage	200 VOLTS	PublishedTable



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage, AC or DC*. . . . 6.3=	0.6 V	Published datasheet line; semantic text-layer recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	900 mA	Published datasheet line; semantic text-layer recovery
Grid to Plate: (g top)	0.6 pF	Published datasheet line; semantic text-layer recovery
Input: gto(h + k + g2 + b.p.)	10 pF	Published datasheet line; semantic text-layer recovery
Output: pto (h + k + g2 + b.p.)	5.5 pF	Published datasheet line; semantic text-layer recovery
Output: pto (h + k + g2 + b.p.)	42 in	Published datasheet line; semantic text-layer recovery
Minimum Seated Height	34 in	Published datasheet line; semantic text-layer recovery
Plate Voltage	3500 V	Published datasheet line; semantic text-layer recovery
Screen Voltage	250 V	Published datasheet line; semantic text-layer recovery
Screen Voltage	200 V	Published datasheet line; semantic text-layer recovery
Plate Dissipation	35 W	Published datasheet line; semantic text-layer recovery
Screen Dissipation	1 W	Published datasheet line; semantic text-layer recovery
Screen Dissipation	200 V	Published datasheet line; semantic text-layer recovery
3500	600 V	Published datasheet line; semantic text-layer recovery
3500	1 mA	Published datasheet line; semantic text-layer recovery
Screen Voltage. 100	125 V	Published datasheet line; semantic text-layer recovery
Grid-Number 1 Voltage -30 -	7.5 V	Published datasheet line; semantic text-layer recovery
Plate Resistance, approximate	54500 Ohm	Published datasheet line; semantic text-layer recovery
Transconductance	5200 uS	Published datasheet line; semantic text-layer recovery
Transconductance	6.3 V	Published datasheet line; semantic text-layer recovery
Plate Current. 10	36 mA	Published datasheet line; semantic text-layer recovery

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
$i_{Ecp} =$	125 V	Published datasheet line; semantic text-layer recovery
$E_{co} =$	250 V	Published datasheet line; semantic text-layer recovery
$\& 7 \text{ el } \sim$	0 V	Published datasheet line; semantic text-layer recovery
$E_p =$	600 V	Published datasheet line; semantic text-layer recovery
$E, =$	600 V	Published datasheet line; semantic text-layer recovery
$f; =$	6.3 V	Published datasheet line; semantic text-layer recovery
R	35 W	Published datasheet line; semantic text-layer recovery

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Cathode Current	100 mA	Published datasheet line; semantic text-layer recovery