

ELECTRON TUBE

TENTATIVE

HIGH VOLTAGE PENTODE

TYPE
7683

... DESCRIPTION

The VICTOREEN 7683 is a beam-type pentode designed for use with plate voltages as high as 1 KV. Its high (20 ma) plate current and high (15 w) plate dissipation make it ideal for use in medium voltage power supplies as the shunt regulator tube or in higher voltage power supplies as the series regulator tube. Its high (5000) transconductance suggests its use in medium power, medium voltage amplifier circuits.

The VICTOREEN 7683 is constructed in a standard T-6 1/2 envelope and employs a nine pin miniature base.

ELECTRICAL DATA

Heater Voltage 6.3 V
Heater Current 150 ma
Cathode Heating Time . . . 12 sec.
Transconductance (Sm) . . . 5000
Plate Resistance (rp) 30 K
Capacitance:
G1 to P —
G1 to K —
P to K 3.45μuf

MECHANICAL DATA

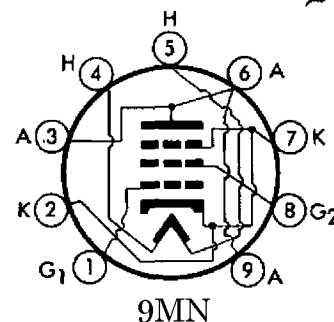
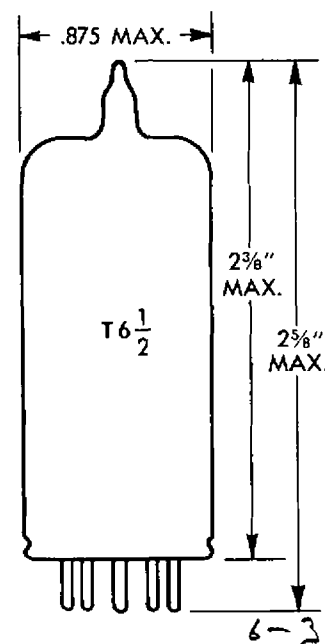
Mounting Position Any
Bulb T-6 1/2
Base 9 pin min.
~~Cap~~ ~~Cl-3~~
Av. Net Weight 4 oz.
Max. Shock —
Max. Vibration —
Life 500 hrs.
(Life test end point) Δ Sm = 25%

RATINGS, ABSOLUTE VALUES

	Min.	Max.
Plate Dissipation (Pp)		15 W
Plate Current (Ib)		20 ma
Plate Voltage (Eb)		1000 V
Heater-Cathode Voltage (Ehk)		±300 V
Grid Voltage (Ec1)		-100 V
Heater Voltage (Ef)	5.7 V	6.9 V
Envelope Temperature		220°C
Grid Resistor		0.5 M
Screen Voltage (Ec2)		250 V
Screen Dissipation (Pg2)		0.7 w

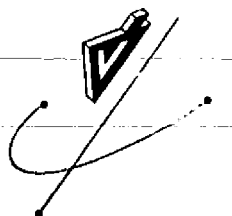
For applications requiring characteristics beyond those listed or for engineering data, contact VICTOREEN'S Application Engineering Dept.

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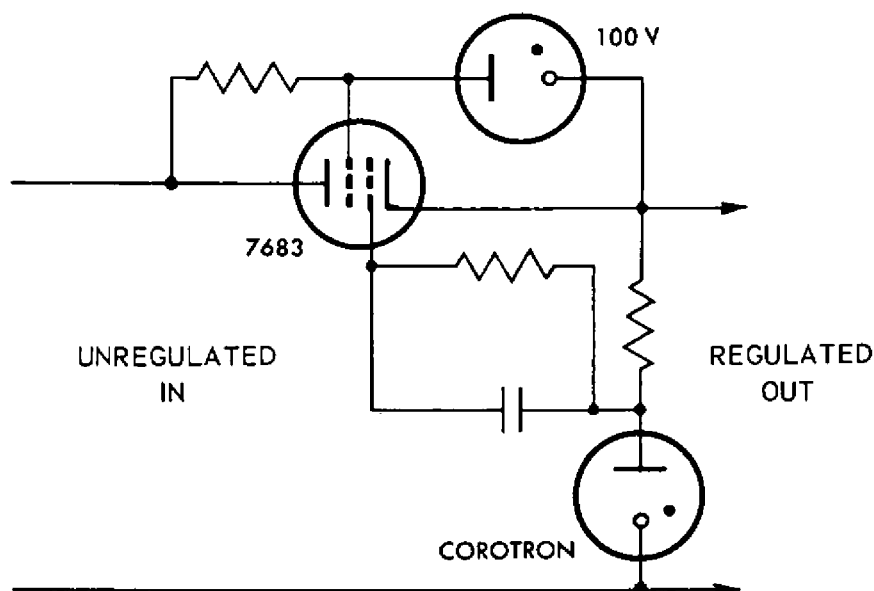
TYPE 7683



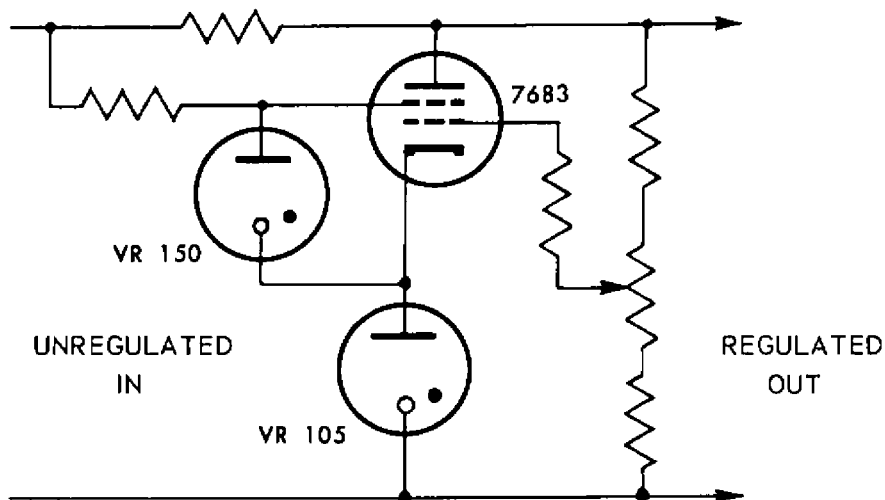
TYPICAL OPERATION — AMPLIFIER

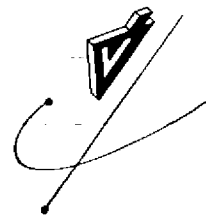
Heater Voltage (Ef)	6.3 V	6.3 V	6.3 V
Heater Current (If)	150 ma	150 ma	150 ma
Plate Voltage (Eb)	300 V	600 V	800 V
Grid Voltage (Ec1)	— .5 V	— 1 V	— 1 V
Screen Voltage (Ec2)	250 V	250 V	250 V
Plate Current (Ib)	12.6 ma	10.6 ma	12 ma
Screen Current (Ic2)	2.2 ma	1.7 ma	1.6 ma
Plate Resistance (rp)	28,000	34,000	35,000
Transconductance (Sm)	4200	4200	4200

TYPICAL OPERATION SERIES REGULATOR



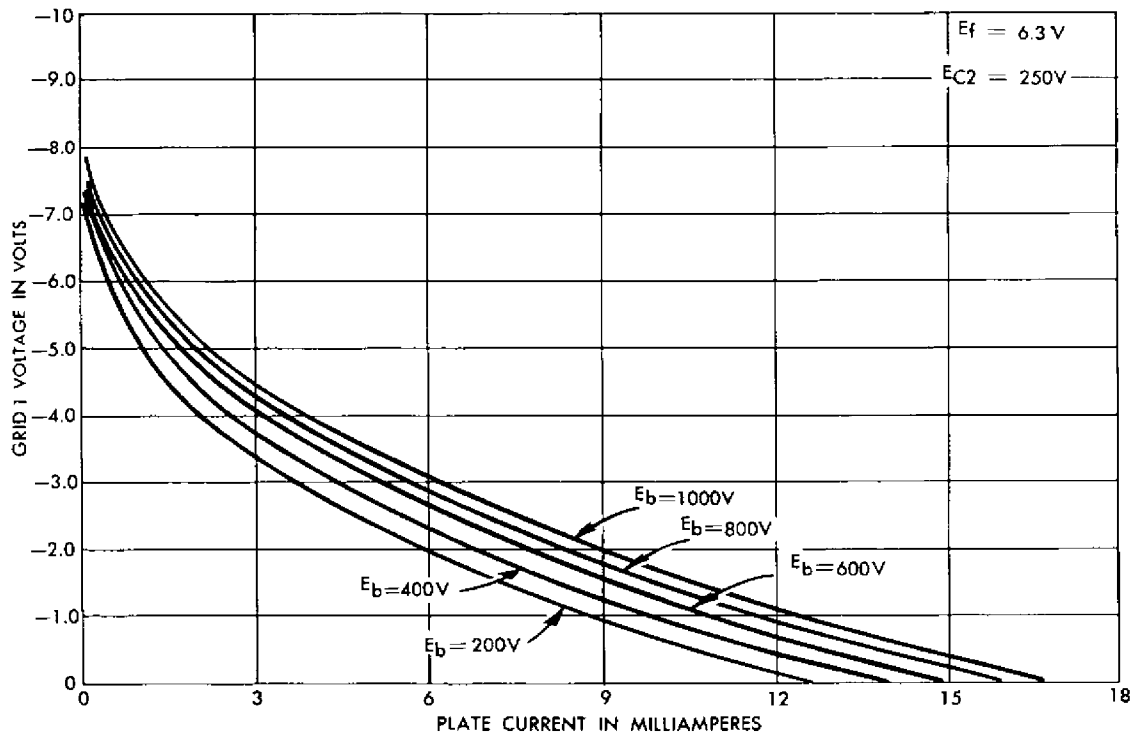
TYPICAL OPERATION SHUNT REGULATOR



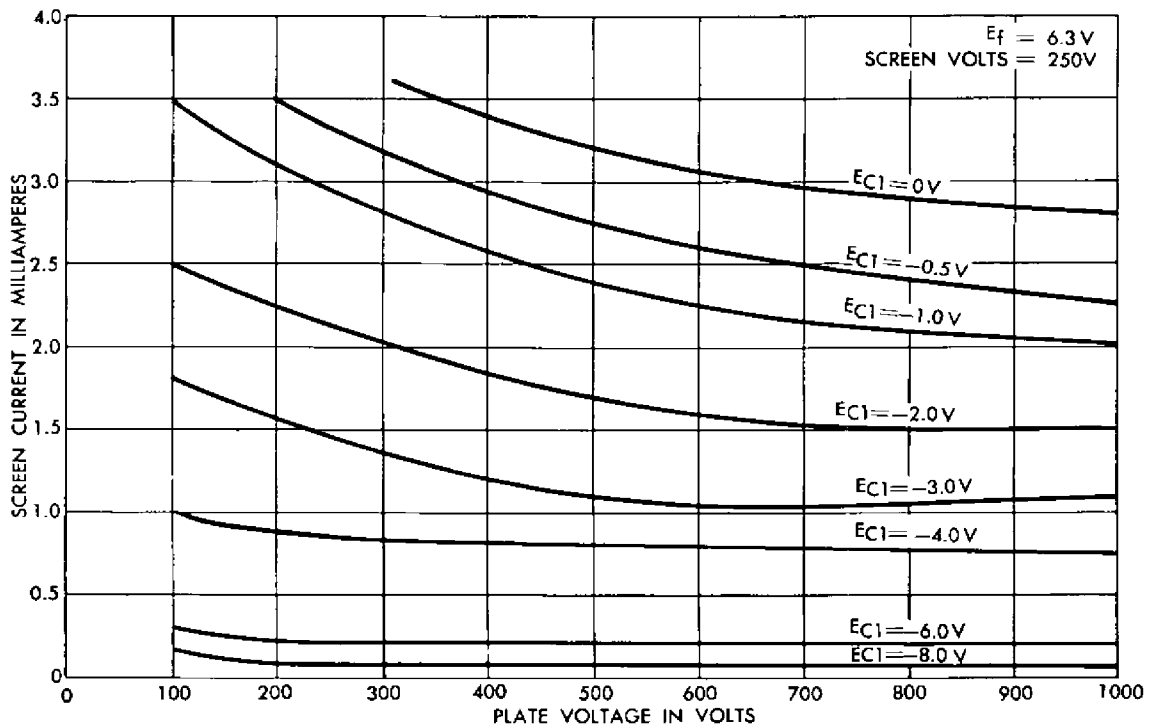


TYPE 7683

TRANSFER CHARACTERISTICS



SCREEN CHARACTERISTICS



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TYPE 7683

PLATE CHARACTERISTICS

