

ELECTRONIC TUBE REFERENCE

16BX11

Voltage - Dual Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

PENTODE-TRIODE-TRIODE

Compactron containing high-mu and medium-mu triodes plus a sharp-cutoff pentode for television video-amplifier and general-purpose signal-processing service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12CA	BASE PINS	12
NOMINAL HEATER	16 V / 315 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

12CA - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	H – Heater	CONNECTED
PIN2	C	G1 – Control Grid	CONNECTED
PIN3	C	G2 – Screen Grid	CONNECTED
PIN4	B	K – Cathode	CONNECTED
PIN5	B	G1 – Control Grid	CONNECTED
PIN6	B	P – Plate (Anode)	CONNECTED
PIN7	A	P – Plate (Anode)	CONNECTED
PIN8	A	G1 – Control Grid	CONNECTED
PIN9	A	K – Cathode	CONNECTED
PIN10	C	G3 – Suppressor Grid	CONNECTED
PIN10	C	K – Cathode	CONNECTED
PIN10	–	IS – Internal Screen	CONNECTED
PIN11	C	P – Plate (Anode)	CONNECTED

TERMINAL	SECTION	ELEMENT	STATUS
PIN12	—	H – Heater	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	6800 Ω
TRANSCONDUCTANCE	0.0062 S
AMPLIFICATION FACTOR	42
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2 W
<i>GE 16BX11 first high-mu or medium-mu distinct triode of Compactron with second triode and sharp-cutoff video pentode. Heater 16 V 315 mA. Maximum plate voltage 330 V and dissipation 2 W. Typical characteristics at plate 150 V: gm 6.2 mA/V, mu 42 and plate resistance ~6800 ohms. GE documents physical separate triode and coupling capacitances. Manufacturer graph/table OCR ambiguity does not affect these explicit ratings.</i>	

SECTION2 Triode	
PLATE RESISTANCE	8400 Ω
TRANSCONDUCTANCE	0.0068 S
AMPLIFICATION FACTOR	57
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1.5 W
<i>GE 16BX11 second distinct triode, used for general-purpose amplification, sharing 16 V 315 mA heater with first triode and video pentode. Max plate voltage 330 V and dissipation 1.5 W. At published 150 V plate operating point: gm 6.8 mA/V, mu 57, plate resistance ~8400 ohms. Values must remain separate from first triode (mu 42). Manufacturer supplies direct interelectrode capacitances.</i>	

SECTION3 Pentode	
PLATE RESISTANCE	100000 Ω
TRANSCONDUCTANCE	0.0113 S
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	1 W
<i>GE 16BX11 sharp-cutoff frame-grid video-amplifier pentode in 12-pin Compactron with dissimilar dual triodes. Plate dissipation 3 W, screen dissipation 1 W; nominal heater 16 V, 315 mA. Typical pentode at 125 V plate and screen: gm 11.3 mA/V, approximate plate resistance 100 kΩ. Numeric operating maximum plate/screen voltages are left unknown because the scanned source has unresolved OCR ambiguity; do not infer from plate supply or operating values. Capacitance and inter-section coupling figures published.</i>	

Compactron containing a high-mu triode, medium-mu triode, and sharp-cutoff pentode for video-amplifier and general-purpose service.



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltageNominal	16 V	—
HeaterOrFilamentCurrentNominal	315 mA	—

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