

**MECHANICAL DATA**

Bulb	T-5 1/2
Base	E7-1, Miniature Button 7-Pin
Outline	JETEC 5-1
Basing	7BF
Cathode	Coated Unipotential
Mounting Position	Any

**RATINGS 1 (Design Maximum)**

Bulb Temperature (At Hottest Point)	165 °C
Operational Altitude 2	60,000 Ft

**DURABILITY CHARACTERISTICS 3**

Impact Acceleration 4	450 G Max.
Fatigue (Vibrational Acceleration for Extended Periods) 5	2.5 G Max.

**ELECTRICAL DATA**

**HEATER CHARACTERISTICS**

Heater Voltage	6.3 V
Heater Current	450 mA

**CONTROLLED DETRIMENTS**

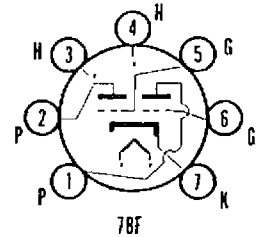
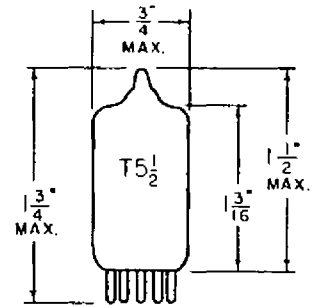
Interelectrode Insulation 6	100 Meg Min.
Total Grid Current 7	-0.5 µAdc Max.
Vibration Output 8	15 mVac Max.

**DIRECT INTERELECTRODE CAPACITANCES (Unshielded)**

	Section 1	Section 2	
Grid to Plate	1.4	1.4	µµF
Input	3.0	3.0	µµF
Output	0.34	0.28	µµF
Heater to Cathode	4.8	4.8	µµF

**QUICK REFERENCE DATA**

The reliable Type 7244 is a medium- $\mu$  double triode featuring stacked mount design and frame type grid construction. It is characterized by long life and stable performance under conditions of severe shock, vibration, high temperature and high altitude.



**SYLVANIA ELECTRIC PRODUCTS INC.**

**RADIO TUBE DIVISION  
EMPORIUM, PA.**

*Prepared and Released By The  
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RATINGS <sup>1</sup> (Design Maximum - Each Section)

Heater Voltage	6.3 ( $\pm 10\%$ )	V
Plate Voltage	300	Vdc
Plate Dissipation	1.1	W
Cathode Current	12.5	mAdc
Heater Cathode Voltage		
Heater Positive with Respect to Cathode		
Total DC and Peak	200	v
Heater Negative with Respect to Cathode		
Total DC and Peak	200	v
Total DC	100	v
Grid Circuit Resistance (Each Grid)	.25	Meg

CHARACTERISTICS (Each Section - Except as Noted) <sup>9</sup>

Plate Voltage	100	Volts
Cathode Bias Resistor <sup>10</sup>	50	Ohms
Plate Current	9.0	mA
Transconductance	6,000	$\mu$ mhos
Amplification Factor	38	
Plate Resistance	6,300	Ohms

## NOTES:

1. Design Maximum Definition: Design Maximum ratings are limiting values of operating and environmental conditions applicable to a bogey electron device of a specified type as defined by its published data, and should not be exceeded under the worst probable conditions. These values are chosen by the device manufacturer to provide acceptable serviceability of the device, taking responsibility for the effects of changes in operating conditions due to variations in device characteristics.

The equipment manufacturer should design so that initially and throughout life no design maximum value for the intended service is exceeded with a bogey device under the worst probable operating conditions with respect to supply voltage variation, equipment component variation, equipment control adjustment, load variation, signal variation, and environmental conditions.

2. If altitude rating is exceeded, reduction of instantaneous voltages ( $E_f$  excluded) may be required.
3. Test performed as a measure of the mechanical durability of the tube structure
4. Force as applied in any direction by the Nave type High Impact (Flyweight) Shock Machine for Electronic Devices.
5. Measured at  $F = 25$  cps, 60 Max. Fixed Frequency.
6. Measured with  $E_f = 6.3$  V;  $E_{g\text{-all}} = -100$  Vdc;  $E_{p\text{-all}} = -300$  Vdc; cathode is positive so that no cathode emission occurs.
7. Measured with  $E_f = 6.3$  V;  $E_b = 250$  Vdc;  $R_k = 500$  Ohms;  $R_g = 1.0$  Meg. Tie  $1g$  to  $2g$ ; and  $1p$  to  $2p$ .

## NOTES (Continued)

8. Measured with  $E_b = 250$  Vdc;  $E_c = -8$  Vdc;  $R_p = 2000$  Ohms;  $R_k = 0$ ;  $F = 40$  cps;  $Acc = 15$  G.
9. Characteristics are measured on each section separately but with test voltages applied to both section.
10. Value is common to both sections.