



ADVANCE DATA

MECHANICAL DATA

Bulb	T-3
Base	E8-10, Subminiature Button Flexible Leads
Outline	JEDEC 3-1
Basing	8DG
Cathode	Coated Unipotential
Mounting Position	Any

RATINGS¹ (Absolute Maximum)

Bulb Temperature (per JEDEC JO-H1)	220°	C
Altitude ²	80,000	Ft.
Radiation		
Total Dosage (\int neutrons/sq. cm/sec.)	10 ¹⁶	nvt
Dose Rate (neutrons/sq. cm/sec.)	10 ¹²	nv

DURABILITY CHARACTERISTICS⁴

Impact Acceleration (3/4 msec Duration) ⁵	750	G	Max.
Fatigue (Vibrational Acceleration for Extended Periods) ⁶	2.5	G	Max.
On-Off Heater Cycles ⁷	2,000		Min.

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage ³	26.5	V
Heater Current	90	mA

DIRECT INTERELECTRODE CAPACITANCES

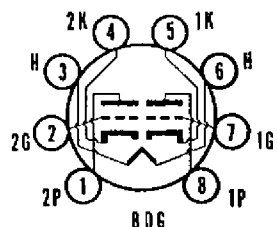
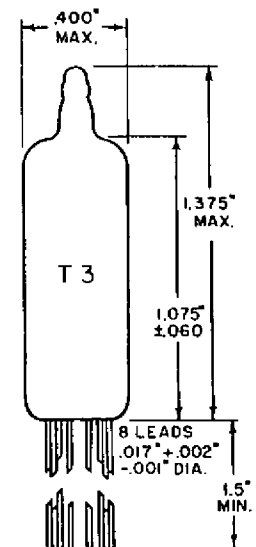
	Shielded ⁸	Unshielded	
Grid to Plate (Each Section)	1.8	1.8	μf
Input (Each Section)	2.5	2.2	μf
Output			
Section No. 1	1.3	0.34	μf
Section No. 2	1.3	0.36	μf
Grid to Grid	0.013	0.015	μf Max.
Plate to Plate	0.30	0.45	μf Max.

CONTROLLED DETRIMENTS

Interelectrode Insulation ⁹	100	Meg	Min.
Total Grid Current ¹⁰	-0.4	μA dc	Max.
Grid Emission ¹¹	-0.5	μA dc	Max.
Vibration Output ¹² as equivalent Ecl	5.0	mVac	Max.
Heater-Cathode Leakage ¹³	5	μA dc	Max.

QUICK REFERENCE DATA

The Premium Subminiature Type 7760 is a general purpose, medium μ , double triode having separate cathode connections for each section. It is particularly useful in oscillator and amplifier applications where power requirements permit the use of two tubes in one envelope. The 7760 is designed to provide dependable operation under conditions of severe shock, vibration, high temperature and high altitude and is manufactured and inspected to meet the applicable MIL-E-1 specification for reliability.



SYLVANIA ELECTRONIC TUBES

A Division of Sylvania Electric Products Inc.

RECEIVING TUBE OPERATIONS EMPORIUM, PA.

Prepared and Released By The TECHNICAL PUBLICATIONS SECTION EMPORIUM, PENNSYLVANIA

July 6, 1960
Page 1 of 2

RATINGS¹ (Absolute Maximum)

Heater Voltage ³	26.5 ($\pm 10\%$)	V
Plate Voltage	55	Vdc
Plate Current (Each Section)	22	mA _{dc}
Grid Current (Each Section)	8.5	mA _{dc}
Heater-Cathode Voltage		
Heater Positive with Respect to Cathode	100	v
Heater Negative with Respect to Cathode	100	v

CHARACTERISTICS (Each Section)

Plate Voltage	26.5	Vdc
Grid Resistor	2.2	Megohms
Plate Current	3.0	mA _{dc}
Transconductance	5000	μ mhos
Amplification Factor	20	
Grid Voltage for $I_b = 50 \mu$ A _{dc}	-3.5	Vdc

NOTES:

1. Limitations beyond which normal tube performance and tube life may be impaired.
2. If altitude rating is exceeded, reduction of instantaneous voltages (E_f excluded) may be required.
3. Tube life and reliability of performance are directly related to the degree of regulation of the heater voltage to its center rated value of 26.5 volts.
4. Tests performed as a measure of the mechanical durability of the tube structure.
5. Force as applied in any direction by the Navy Type High Impact (Flyweight) Shock Machine for Electronic Devices. Shock Duration = $3/4$ milliseconds.
6. Vibrational forces applied in any direction for a period of 96 hours.
7. One cycle consists of the application of $E_f = 29.0$ V for one minute and interruption of the filament voltage for four minutes. A voltage of $E_{hk} = 140$ Vac is applied continuously.
8. External shield No. 318 connected to cathode.
9. Measure each section separately with $E_f = 26.5$ V; E_g -all = -100 Vdc; E_p -all = -100 Vdc; Cathode is positive so that no cathode emission occurs.
10. Measure each section separately with $E_f = 26.5$ V; $E_b = 50$ Vdc; $E_c = -1.5$ Vdc.
11. Preheat each section separately for five minutes with $E_f = 31.5$ V; $E_b = 26.5$ Vdc; $R_g = 2.2$ Meg; then test each section separately with $E_f = 31.5$ V; $E_b = 26.5$ Vdc; $E_c = 3.5$ Vdc; $R_g = 0.1$ Meg.
12. Test each section separately with $E_f = 26.5$ V; $E_b = 26.5$ Vdc; $R_g = 2.2$ Megs; $C_{g1} = 1 \mu$ f; $R_p = 10,000$ ohms; $F = 40$ cps; $Acc = 15$ g.
13. Measured with $E_f = 26.5$ V; $E_{hk} = \pm 100$ Vdc; each section separately.