



ADVANCE DATA

MECHANICAL DATA

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

RATINGS¹ (Absolute Maximum)

Bulb Temperature (Per JEDEC JO-H1)	220 °C
Altitude	80,000 Ft.
Radiation	
Total Dosage ($\sqrt{\text{neutrons/sq. cm/sec.}}$)	10^{16} nvt
Dose Rate (neutrons/sq. cm/sec.)	10^{12} nv

DURABILITY CHARACTERISTICS²

Impact Acceleration (3/4 msec Duration) ³	750 G	Max.
Fatigue (Vibrational Acceleration for Extended Periods) ⁴	2.5 G	Max.
On-Off Heater Cycles ⁵	2000	Min.

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage	26.5 V
Heater Current	45 mA

DIRECT INTERELECTRODE CAPACITANCES

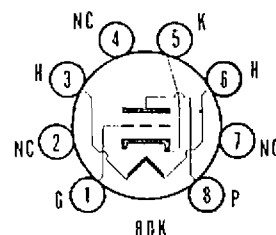
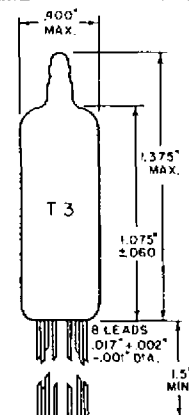
	Shielded ⁶	Unshielded
Grid to Plate (Each Section)	1.3	1.4 μf
Input (Each Section)	2.4	2.2 μf
Output	2.4	0.7 μf

CONTROLLED DETRIMENTS

Interelectrode Insulation ⁷	100 Meg. Min.
Total Grid Current ⁸	-0.4 μAdc Max.
Grid Emission ⁹	-0.5 μAdc Max.
Vibration Output as Equivalent Ecl ¹⁰	2.5 mVac Max.
Heater-Cathode Leakage ¹¹	5.0 μAdc Max.

QUICK REFERENCE DATA

The Premium Subminiature Type 7888 is a high gm, medium μ triode intended primarily for use as a UHF oscillator. It is also well suited to a variety of low frequency oscillator and amplifier applications. The 7888 is designed for 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 reliable operation.

SYLVANIA
ELECTRONIC TUBES

A Division of
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RECEIVING TUBE
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RATINGS¹ (Absolute Maximum)

Heater Voltage ³	26.5 ($\pm 10\%$) V
Plate Voltage	165 Vdc
Peak Plate Forward Voltage	330 v
Plate Dissipation (Each Section)	3.3 W
Plate Current (Each Section)	22 mAdc
DC Grid Voltage	
Positive Value	0 Vdc
Negative Value	55 Vdc
Grid Current	5.5 mAdc
Heater-Cathode Voltage	
Heater Positive with Respect to Cathode	200 v
Heater Negative with Respect to Cathode	200 v
Grid Circuit Resistance	1.1 Meg

CHARACTERISTICS (Each Section)

Plate Voltage	100	150 Vdc
Cathode Resistor	150	180 Ohms
Plate Current	8.5	13 mAdc
Transconductance	5800	6500 μ mhos
Amplification Factor	27	27
Grid Voltage for $I_b = 100 \mu$ Adc	-7	-11 Vdc

NOTES:

1. Limiting values beyond which normal tube life and normal tube performance may be impaired.
2. Tests performed as a measure of the mechanical durability of the tube structure.
3. Force as applied in any direction by the Navy Type High Impact (Flyweight) Shock Machine for Electronic Devices. Shock duration = $3/4$ milliseconds.
4. Vibrational forces applied in any direction for a period of 96 hours.
5. 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.
6. Capacitances are measured with an external shield No. 318.
7. Measure with $E_f = 26.5$ V eg-all = -100 Vdc; E_p -all = -300 Vdc; cathode is positive so that no cathode emission occurs.
8. Measure with $E_f = 26.5$ V; $E_b = 150$ Vdc; $R_k = 380$ ohms; $R_g = 1.0$ Meg.

9. Preheat for five minutes with $E_f = 31.5$ V; $E_b = 100$ Vdc; $R_k = 150$ ohms; $R_g = 1.0$ Meg; then test with $E_f = 31.5$ V; $E_b = 100$ Vdc; $E_{c1} = -7.0$ Vdc; $R_g = 1.0$ Meg.
10. Test with $E_f = 26.5$ V; $E_b = 100$ Vdc; $R_k = 150$ ohms; $CK = 1000$ μ f; $R_p = 10,000$ ohms; $F = 40$ cps; $Acc = 15$ g.
11. Measure with $E_f = 26.5$ V; $E_{hk} = \pm 100$ Vdc.