

TYPE 7739

The 7739 is a planar type triode designed for use in pulse oscillator applications at frequencies in the order of 4,000 to 5,000 megacycles.

GENERAL CHARACTERISTICSElectrical Data

	<u>Min.</u>	<u>Bog.</u>	<u>Max.</u>	
Heater Voltage		6.1		Volts
Heater Current		1.18		Amperes
Direct Interelectrode Capacitances				
Grid to Plate	1.25	1.45	1.60	$\mu\mu\text{f}$
Grid to Shell ¹	7.8	12.4	17.0	$\mu\mu\text{f}$
Grid to Shell, Hot ($E_f = 6.3 \text{ V}$; $E_b = 0 \text{ V}$) ¹	7.1	8.7	10.3	$\mu\mu\text{f}$
Plate to Shell ¹			0.050	$\mu\mu\text{f}$
Cathode to Shell	27	42.5	58	$\mu\mu\text{f}$

Mechanical Data

Cathode		Unipotential
Mounting Position		Any
Weight, Approximate	1	Ounce

MAXIMUM RATINGS (ABSOLUTE VALUES)

Frequency	5,000	Megacycles
Pulse Width	$0.45 \pm .05$	Microseconds
Duty Cycle	0.04	
Peak Plate Voltage	350	Volts
Peak Plate Current	325	Milliamperes
Plate Dissipation	7.5	Watts

TYPICAL OPERATION

Frequency	4,000 to 5,000	Megacycles
Pulse Width	$0.45 \pm .05$	Microseconds
Duty Cycle	0.04	

DE-6047
3/21/60

TYPE 7739TYPICAL OPERATION (Continued)

Peak Plate Voltage	350	Volts
Peak Plate Current	250	Milliamperes
Peak Power Output	3	Watts Min.

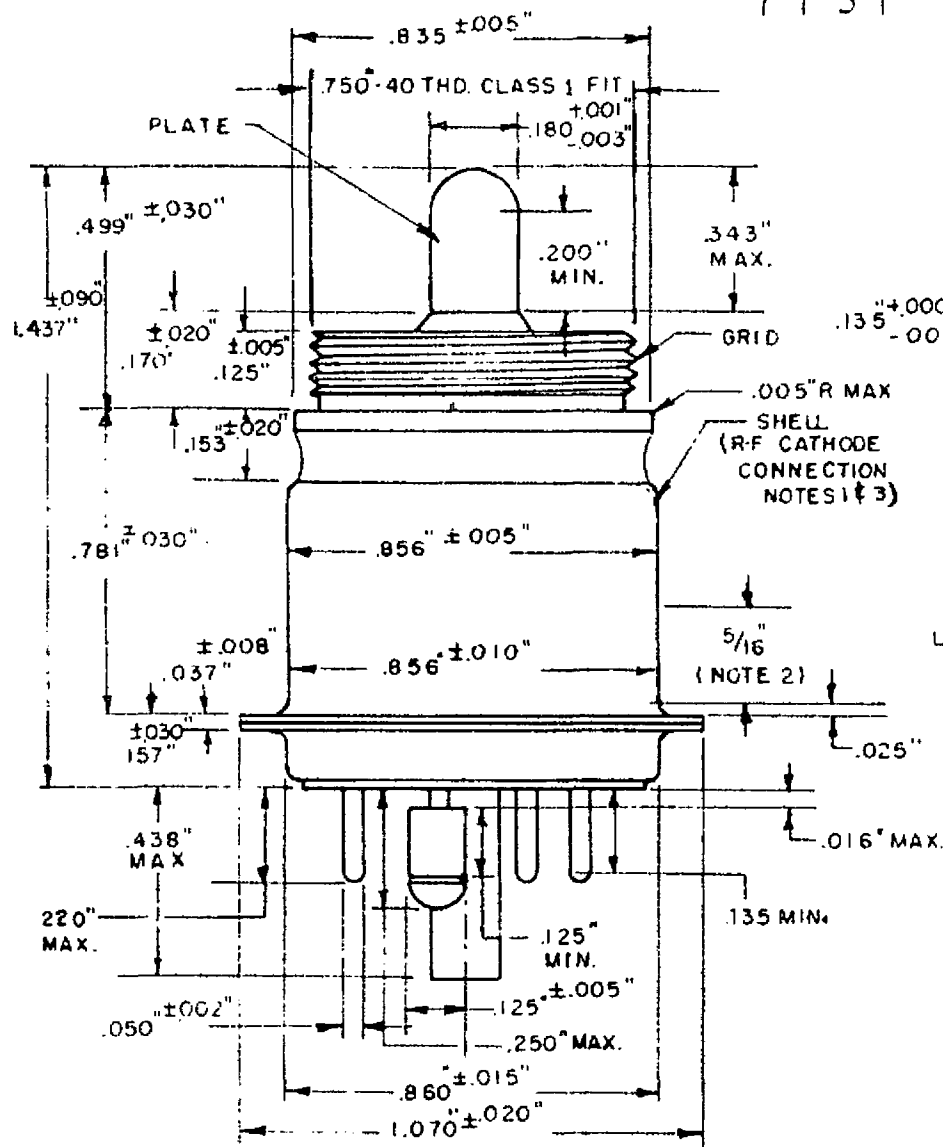
NOTE 1: Cathode connected to shell through cathode-to-shell capacitance.

NOTE 2: Sufficient conduction and convection cooling should be provided to limit the grid and plate seal temperatures under all operating conditions. Maximum grid seal temperature is 100° C; maximum plate seal temperature is 150° C.

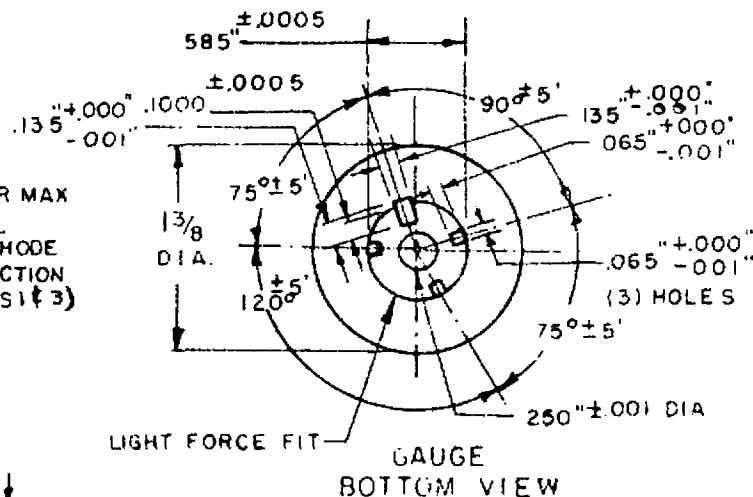
DE-6047

DUMONT

7739



BASE SHALL BE CAPABLE OF BEING INSERTED FREELY INTO A 7/16" THICK GAUGE WITH 5 HOLES DISPOSED AS SHOWN.



NOTES:

1. SURFACES OF R-F CATHODE, GRID AND ANODE CONNECTIONS ARE GOLD PLATED.
2. $.856 \pm .010"$ DIMENSION APPLIES ONLY OVER THE $5/16"$ LENGTH
3. CATHODE CONNECTED TO SHELL THROUGH CATHODE TO SHELL CAPACITANCE.
4. WITH THE $.750-40$ THD. SCREWED INTO A GAUGE HAVING A THREAD WITH A $.750-40$ CLASS 1 FIT THE $.856"$, $1.070"$ AND $.180"$ DIAMETERS MUST FIT IN CYLINDERS CONCENTRIC WITH THE $.750-40$ THREAD AND HAVING DIAMETERS OF $.835" \times .720"$ LONG, $1.135" \times .157"$ LONG, AND $.210" \times .375"$ LONG. ALLOWANCES FOR THESE TOLERANCES MUST BE MADE IN ANY CIRCUIT DESIGN.

