

DUMONTTYPE 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>Boq.</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 ($E_f=6.3$ V; $E_b=0$ 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	

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DUMONTTYPE 7739TYPICAL OPERATION (Continued)

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

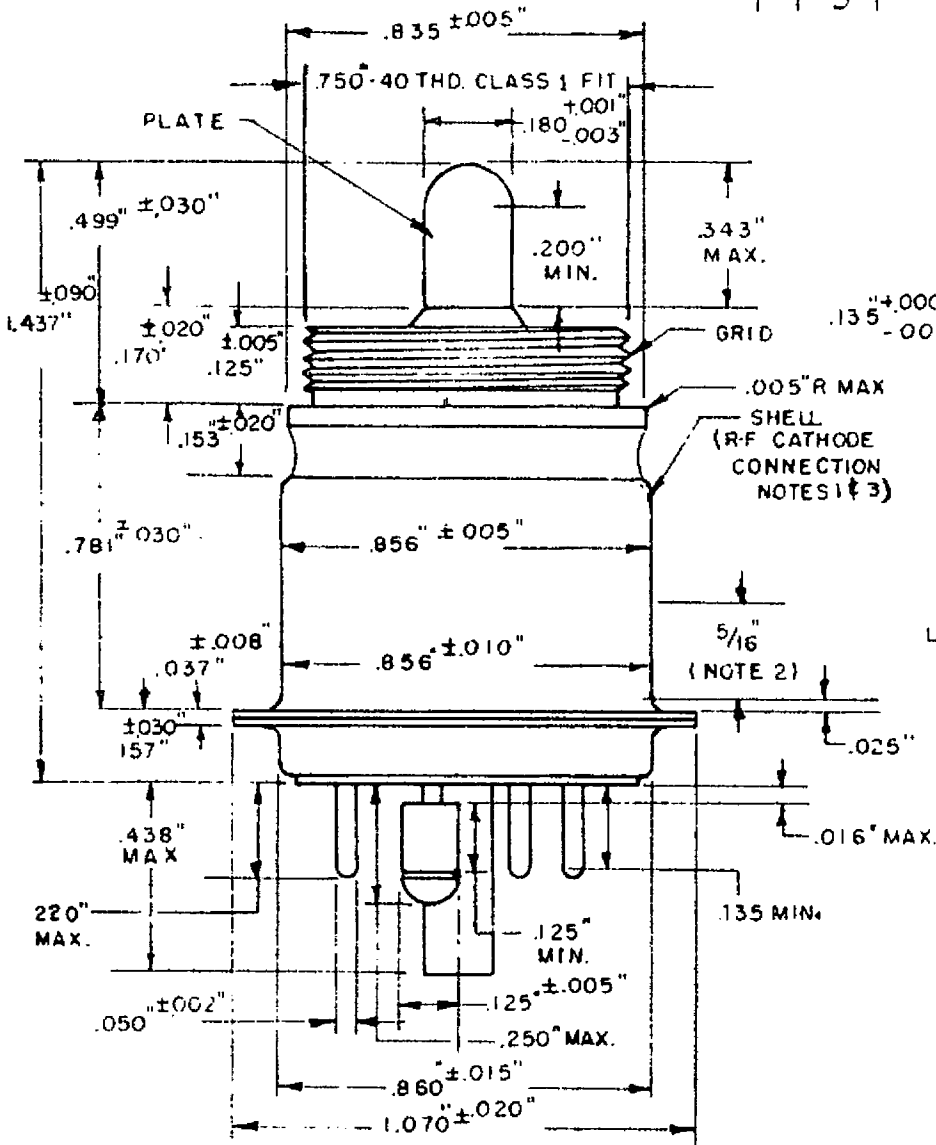
NOTE 1: Cathode connected to shell through cathode-to-shell capacitance.

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.

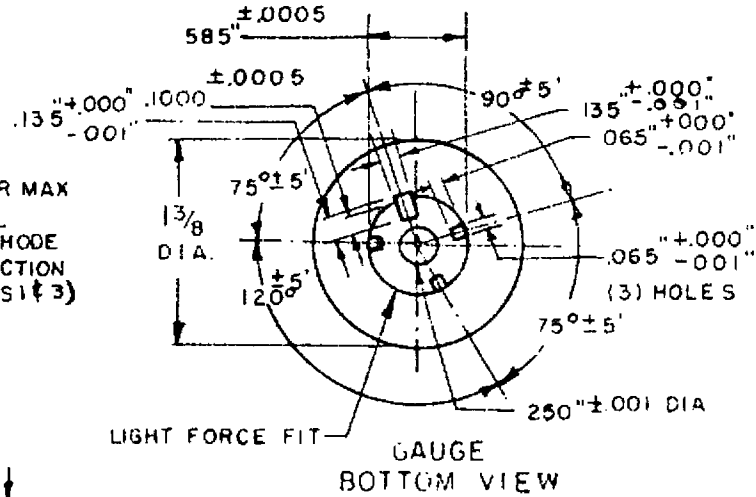
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DUMONT

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" ± .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 .895" X .720" LONG, 1.135" X .157" LONG, AND .210" X .375" LONG. ALLOWANCES FOR THESE TOLERANCES MUST BE MADE IN ANY CIRCUIT DESIGN.

