

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	μmf
Grid to Shell ¹	7.8	12.4	17.0	μmf
Grid to Shell, Hot ($E_f = 6.3 \text{ V}$; $E_b = 0 \text{ V}$) ¹	7.1	8.7	10.3	μmf
Plate to Shell ¹			0.050	μmf
Cathode to Shell	27	42.5	58	μmf

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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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.

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