

High-mu hard-tube pulse-modulator switch triode for radar and similar applications, capable of roughly 15-20 MW pulse output.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
MAXIMUM PLATE VOLTAGE	150000 V
MAXIMUM PLATE DISSIPATION	6000 W
Promoted ratings/characteristics mapped from printed headings; device/service-specific values retained in parameters.	

The ML-DP15 is a high-mu triode designed primarily to in series with the rf load tube, where high stored energy is operate as a switch tube in hard-tube pulse modulators, for involved, or where the frequency of kick-outs must be ex- radar and similar applications. In this service it can deliver tremely low, the dc plate voltage should be limited to 125 kV. pulse output in the order of 15 to 20 Mw, depending on The cathode of this tube consists of sturdy, stress-free circuitry and performance requirements. thoriated-tungsten filaments. The anode is capable of dis- The ML-DP15 is designed for operation in oil or equiv- sipating 6 kW when cooled by free convection of oil. Several alent dielectric fluid, which is required for utilization of the modifications of the anode are feasible for higher dissipation,

SOURCE OPERATING CONDITIONS

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Published test conditions and operating points. Values on this page are preserved as reported by this source.

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Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The ML-DP1	5 mA	The ML-DP15 is a high-mu triode designed primarily to in series with the rf load tube, where high stored energy is
radar and similar applications. In this service it can deliver tremely low, the dc plate voltage should be limited to	125	radar and similar applications. In this service it can deliver tremely low, the dc plate voltage should be limited to 125 kV.
pulse output in the order of [1]	15	pulse output in the order of 15 to 20 Mw, depending on The cathode of this tube consists of sturdy, stress-free
pulse output in the order of [2]	20	pulse output in the order of 15 to 20 Mw, depending on The cathode of this tube consists of sturdy, stress-free
maximum plate voltage ratings. For applications with a in the order of [1]	9 mA	maximum plate voltage ratings. For applications with a in the order of 9 to 20 kW. In this case a forced flow of the
maximum plate voltage ratings. For applications with a in the order of [2]	20 mA	maximum plate voltage ratings. For applications with a in the order of 9 to 20 kW. In this case a forced flow of the
resistive load and low energy storage, the tube is tentatively dielectric liquid would be required, in the order of [1]	10	resistive load and low energy storage, the tube is tentatively dielectric liquid would be required, in the order of 10 to 20
resistive load and low energy storage, the tube is tentatively dielectric liquid would be required, in the order of [2]	20	resistive load and low energy storage, the tube is tentatively dielectric liquid would be required, in the order of 10 to 20
rated at	150 kV	rated at 150 kVdc plate voltage. Where the tube is to be used gpm when the liquid is mineral oil.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum bulk oil temperature	75 mA	Maximum bulk oil temperature 75 Ct
Maximum Glass Temperature ccooeeeivviinnnnn	165 mA	Maximum Glass Temperature ccooeeeivviinnnnn. 165 °C
DC Grid Voltage	-6000	DC Grid Voltage —6000 v
Peak Negative Grid Voltage	175	Peak Negative Grid Voltage 175 a
Pulse Cathode Current	1000	Pulse Cathode Current .. 1000 W
Plate Dissipation	1000	Plate Dissipation 1000 ps#
Pulse DULation	1	Pulse DULation .. 01 #
DC Grid Voltage	1300	DC Grid Voltage ... 1300 v ANODE
Pulse Plate CUIFent	35	Pulse Plate CUIFent . 35 a
Pulse Grid CULTENT	90 kW	Pulse Grid CULTENT .. 90 kw
Pulse Driving Power	15	Pulse Driving Power .. 15 Mw
Pulse Power Output	115	Pulse Power Output 115 kv
Pulsed Plate Output Voltage [1]	4	Pulsed Plate Output Voltage .004 P15
Pulsed Plate Output Voltage [2]	5	Pulsed Plate Output Voltage .004 P15
Higher plate dissipation [1]	1	Higher plate dissipation 1s possi B 9 F 4.63 3 A9
Higher plate dissipation [2]	9	Higher plate dissipation 1s possi B 9 F 4.63 3 A9
Higher plate dissipation [3]	4.63	Higher plate dissipation 1s possi B 9 F 4.63 3 A9
Higher plate dissipation [4]	3	Higher plate dissipation 1s possi B 9 F 4.63 3 A9
r pulse duration or higher duty X	10.38	r pulse duration or higher duty X 10.38