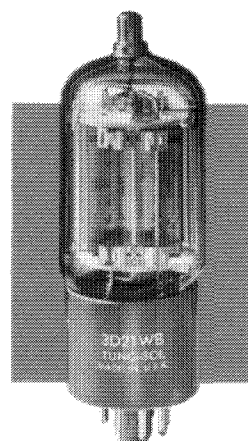


PULSE BEAM POWER TETRODE

DESCRIPTION — The 3D21WB is a rugged, reliable, beam power tetrode designed for pulse service. Featuring the ability to operate under high voltage and high pulse current conditions, the 3D21WB is electrically and mechanically interchangeable with its predecessor types. Rated for 6.3 or 12.6 volts, it can be used either in fixed or mobile equipment.

Good use can also be made of the low tube drop, high current handling capacity and high voltage characteristics in pulse modulators, deflection amplifiers, blocking oscillators, and shunt or series regulated power supplies.

This type replaces such earlier versions as 3D21, 3D21A, 3D21B & 3D21WA.



MAXIMUM RATINGS ABSOLUTE MAX. SYSTEM — SEE EIA STANDARD RS-239

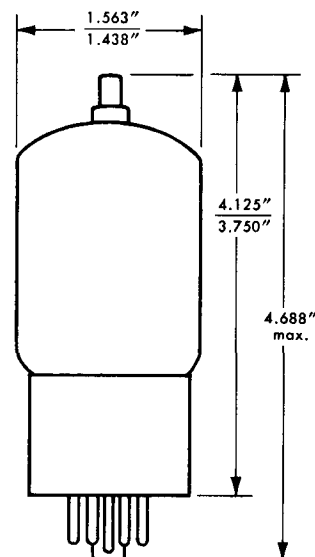
DC Plate Voltage — Note 1	4000 Volts
Peak Plate Voltage including Transient — Note 2	5000 Volts
Grid 2 Voltage — Note 1	850 Volts
Negative DC Grid 1 Voltage	200 Volts
Negative Peak Grid 1 Voltage — Note 1	500 Volts
Positive Peak Grid 1 Voltage — Note 1	220 Volts
Plate Dissipation	40 Watts
Grid 2 Dissipation	3.5 Watts
Grid 1 Dissipation	0.5 Watt
D-C Cathode Current	175 Milliampères
Peak Cathode Current—See Rating Chart	10 Amperes

Notes: 1. Series resistance must be inserted in the power supply sufficient to limit the short circuit current to less than 0.5 ampere.

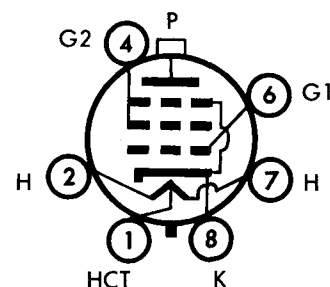
2. With a screen potential not exceeding 400Vdc and when no instantaneous voltage due to transient is present (essentially resistive plate load) a maximum plate potential of 4500Vdc may be used.

HEATER CHARACTERISTICS AND RATINGS ABSOLUTE MAX. SYSTEM — SEE EIA STANDARD RS-239

Heater Sections Series Connected:			
Average Characteristics	12.6 Volts	0.85 Amp	
Limits of Applied Voltage		11.4 to 13.9 Volts	
Heater Sections Parallel Connected:			
Average Characteristics	6.3 Volts	1.70 Amp	
Limits of Applied Voltage		5.7 to 6.9 Volts	
Heater — Cathode Voltage — Either Polarity		Max. 500 Volts	
Cathode Heating Time		Min. 30 Sec.	



OUTLINE DRAWING



TERMINAL DIAGRAM
BOTTOM VIEW

INTERELECTRODE CAPACITANCES

	Min.	Max.
Grid to Plate	—	1.2 Picofarads
Input	13	21 Picofarads
Output	7.5	12.5 Picofarads

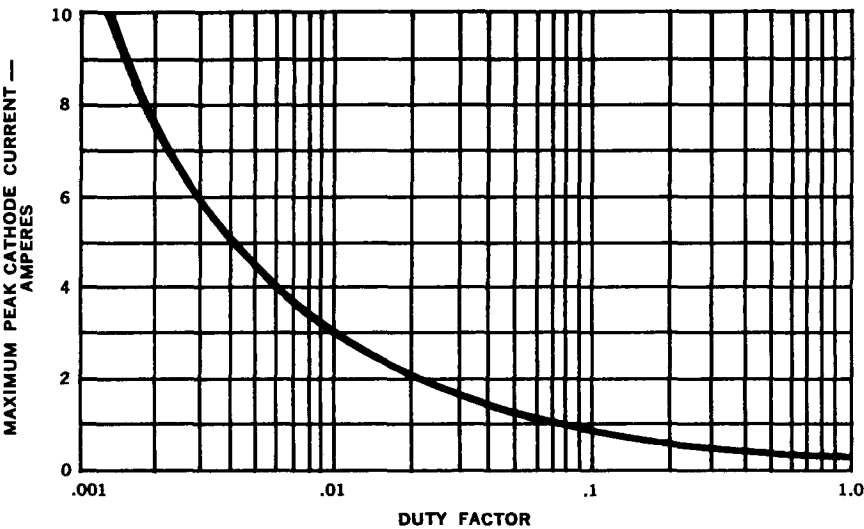
SPECIAL TESTS

Shock	450G for 1 millisecond
Vibration — D = 0.08 inch at 25 cps	2.5G
Fatigue Vibration — 96 hours	50 to 500 cps at 5G
Heater Cycling Test	

MECHANICAL DATA

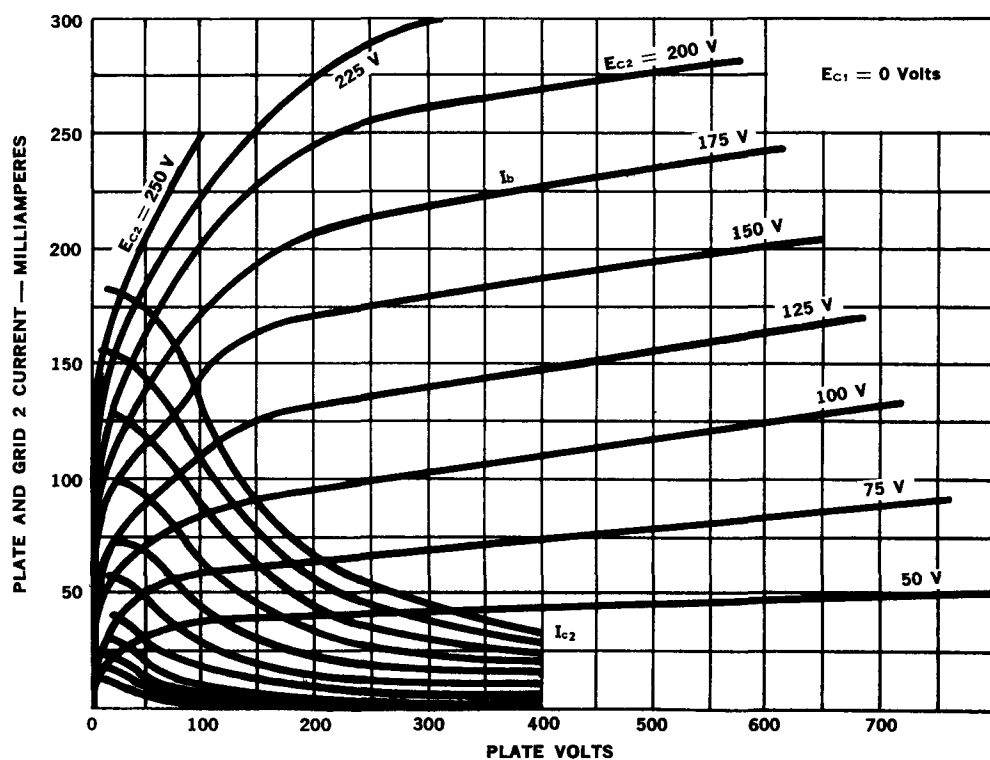
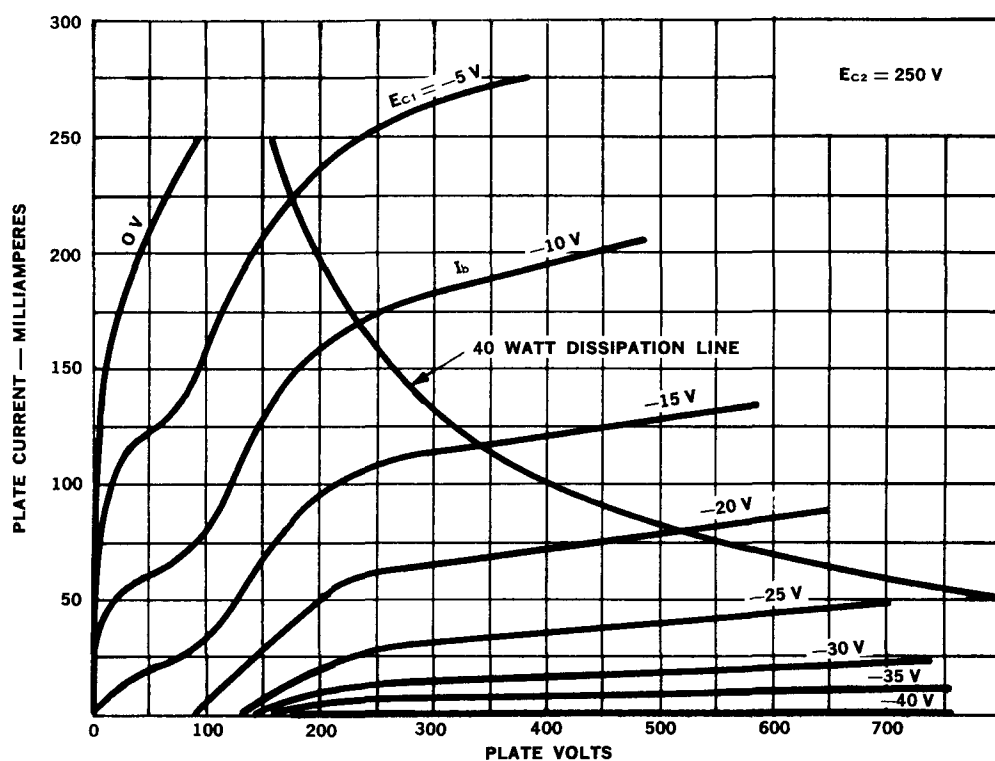
Mounting Position	Any
Maximum Bulb Temperature	300 degree Centigrade
Maximum Altitude	80,000 feet
Bulb	T-12 hard glass
Base	Medium shell octal, 6 pin, JEDEC type B8-11 low loss phenolic
Cap	Skirted miniature, JEDEC type C1-2
Maximum Weight	4 ounces

PULSE RATING CHART

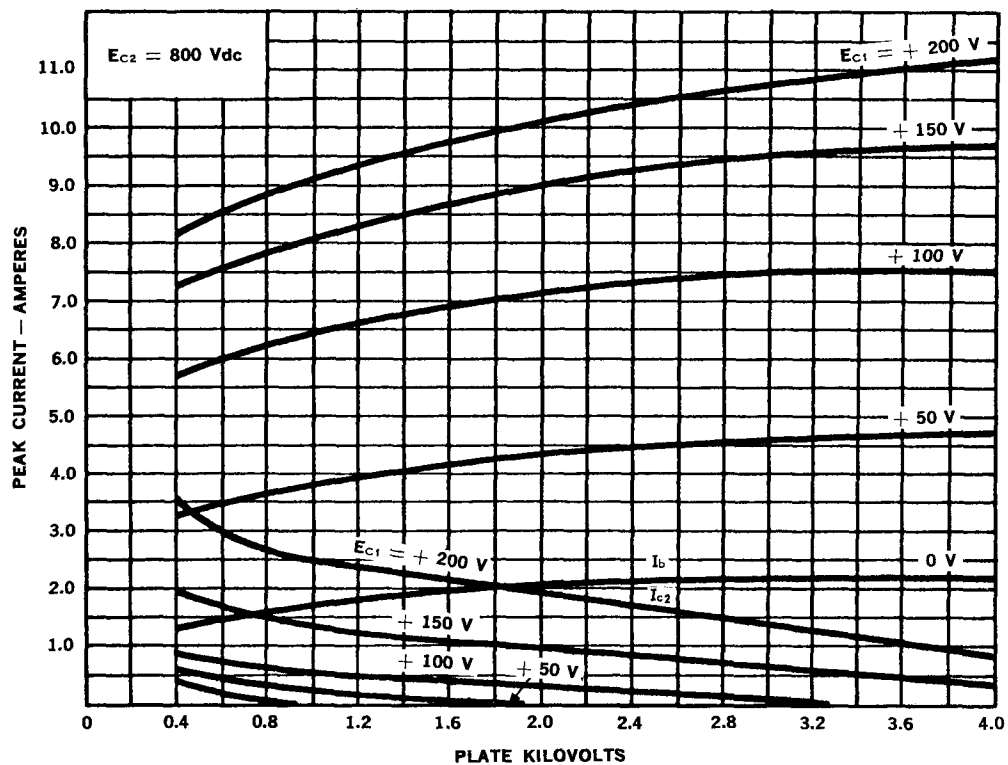
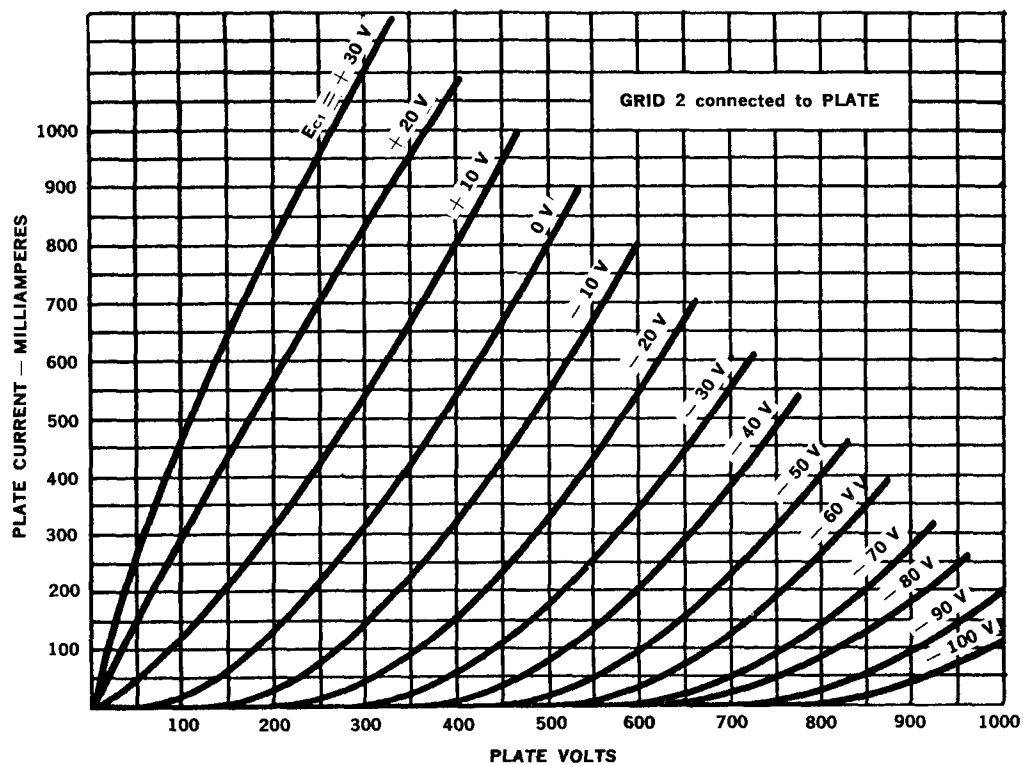


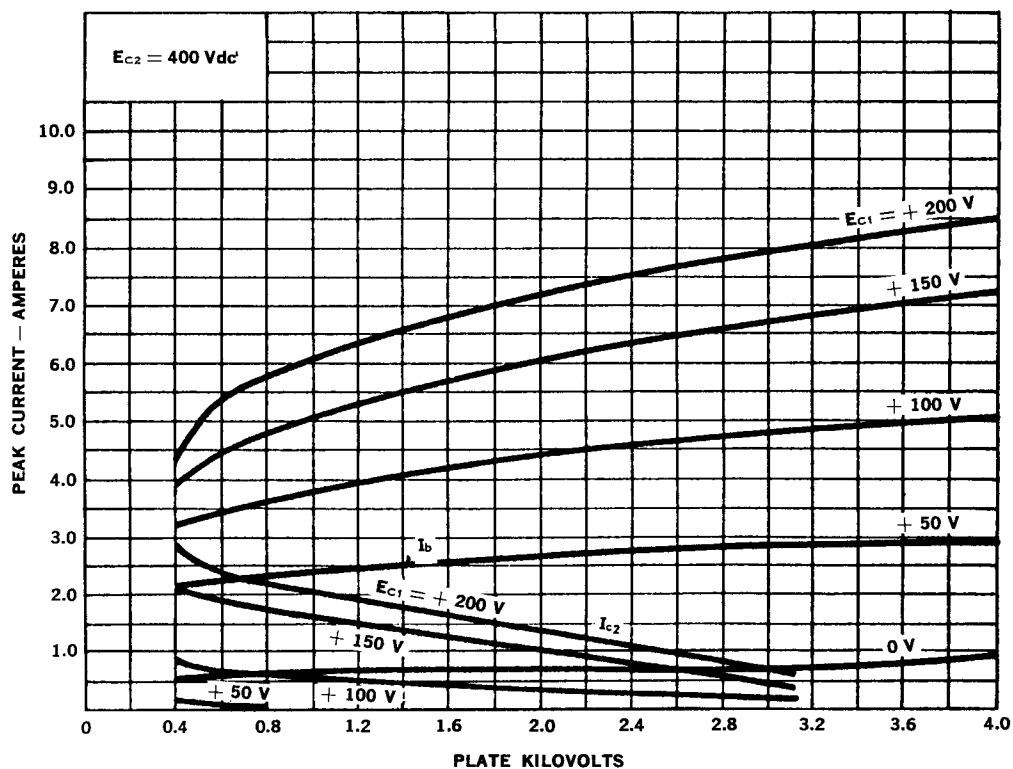
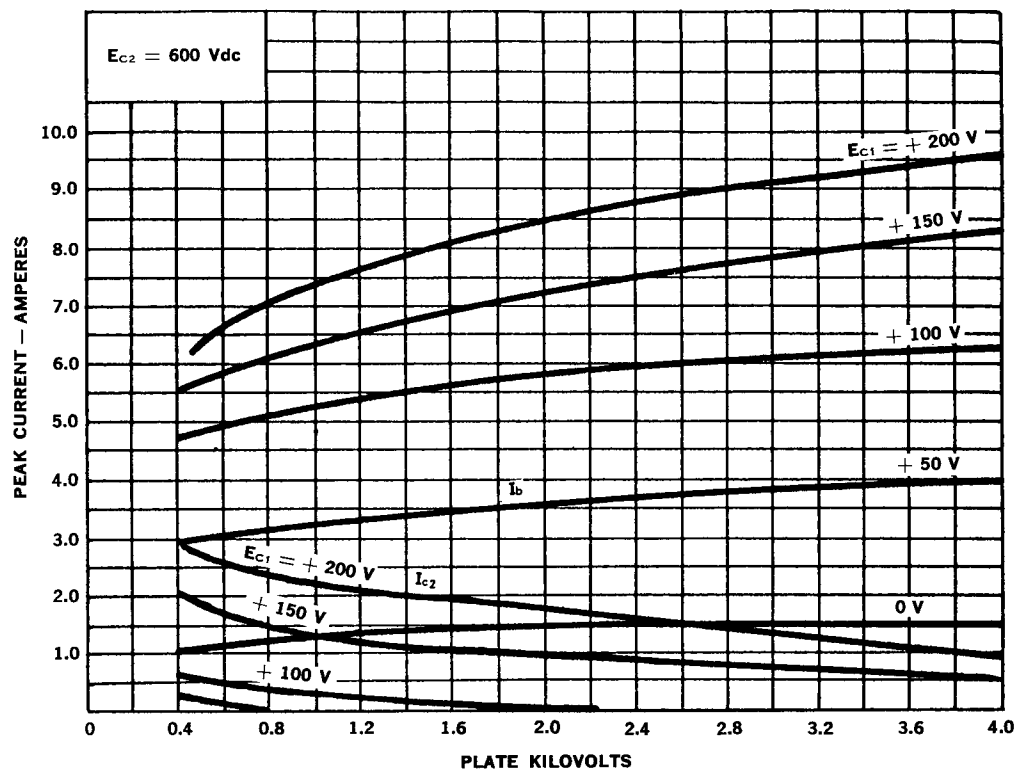
Definitions: Duty factor (10,000 microsecond averaging time) is the ratio of “on” time in microseconds to 10,000 microseconds.

“On” Time is defined as the sum of the duration of all individual pulses which occur during any 10,000 microsecond interval.



TYPE 3D21WB





TYPE 3D21WB

