TUNG-SOL

HALF-WAVE HIGH-VACUUM RECTIFIER

MINIATURE TYPE

PHYSICAL SPECIFICATIONS

EMITTER COATED FILAMENT	PIN CONNECTIONS	
BASE MINIATURE BUTTON 7-PIN	PIN 1 FILAMENT-	PIN 7 FILAMENT +
CAP ———	PIN 2 IC-DO NOT USE	PIN 8 NONE
BULB T- 5½	PIN 3 IC-DO NOT USE	BULB TERMINAL PLATE
MAX. DIAMETER 3/4"	PIN 4 NO CONNECTION	
MAX. SEATED HEIGHT 2 3/16"	PIN 5 NO CONNECTION	MOUNTING POS. ANY
MAX. OVERALL LENGTH 2 7/16"	PIN 6 IC-DO NOT USE	

RATINGS[A]

INTERPRETED ACCORDING TO RMA STANDARD M8-210

HEATER OR FILAMENT VOLTAGE (AC OR DC)	1.4	VOLTS
HEATER OR FILAMENT CURRENT	0.05	AMP
MAXIMUM PEAK INVERSE PLATE VOLTAGE	7000	VOLTS
MAXIMUM PEAK PLATE CURRENT[B]	6	MA.
MAXIMUM AVERAGE PLATE CURRENT	1	MA.

[A] THESE RATINGS APPLY TO THE 1654 WHEN IT IS OPERATED FROM A POWER SUPPLY HAVING A FREQUENCY UP TO 500 CYCLES PER SECOND.

[B] A PEAK VALUE OF 20 MA. FOR 0.1 SECOND IS PERMITTED UNDER CONDITIONS OF "HOT-SWITCHING", I.E., SWITCHING THE PLATE CIRCUIT "ON" WHILE THE FILAMENT IS HOT.

DIRECT INTERELECTRODE CAPACITANCE (APPROX.)

WITH NO EXTERNAL SHIELD

PLATE TO FILAMENT	1.4	μμf

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

HALF-WAVE RECTIFIER

AC PLATE-SUPPLY VOLTAGE	2500	VOLTS
FILTER INPUT CONDENSER	0.025	μf
TOTAL EFFECTIVE PLATE-SUPPLY IMPEDANCE	175 000	OHMS
DC OUTPUT VOLTAGE (APPROX.) - AT INPUT TO FILTER	2350	VOLTS
DC OUTPUT CURRENT	1	MA.

CIRCUIT VALUES

A PLATE-SUPPLY IMPEDANCE OF 175000 OHMS IS REQUIRED SO THAT THE "HOT-SWITCHING" CURRENT WILL NOT EXCEED THE 20 MA. ALLOWABLE UNDER CONDITIONS OF NORMAL LINE-VOLTAGE FLUCTUATIONS.

THE PLATE-SUPPLY IMPEDANCE MAY BE DECREASED FOR PLATE-SUPPLY VOLTAGES LESS THAN 2500 VOLTS IF THE RESULTANT PEAK-CURRENT RATING OF 6 MA. AND THE "HOT-SWITCHING" CURRENT OF 20 MA. ARE NOT EXCEEDED.

NOTE: THE 1654 IS A MINIATURE, HALF-WAVE, HIGH VACUUM TUBE DESIGNED FOR HIGH VOLTAGE, LOW-CURRENT OPERATION WHERE THE POWER-SUPPLY FREQUENCY DOES NOT EXCEED 500 CYCLES PER SECOND. IT IS ESPECIALLY USEFUL IN EQUIPMENT DESIGN WHERE SPACE AND LOW FILAMENT DRAIN ARE HIGHLY SIGNIFICANT FACTORS.

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PLATE 1688
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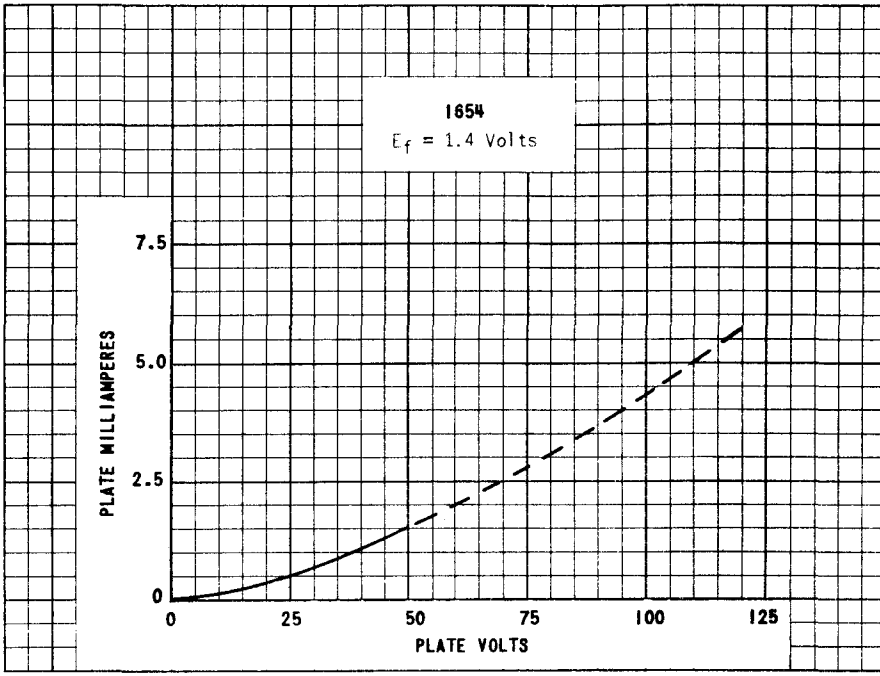
1654



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