

## Communications & Power Industries Tetrode



The Y-647 is a ceramic/metal, liquid-cooled power tetrode that is intended for use at the 100 to 200 kilowatt output power level. It is recommended for use as a Class-C RF amplifier or oscillator, or a Class-AB RF linear amplifier or a Class-AB push-pull AF amplifier or modulator. The Y-647 is also useful as a plate and screen modulated Class-C RF amplifier and also in pulse modulator-generator service.

### FEATURES:

Maximum plate dissipation:	100 Watts
Maximum screen dissipation:	1,750 Watts
Maximum grid dissipation:	500 Watts
Frequency for max rating (CW):	30 MHz
Amplification factor:	4.5
Filament/cathode:	Thoriated Tungsten
Voltage:	10.0 ± 0.6 Volts
Current:	295 Amps
Capacitance: Grounded cathode	
Input:	440.0 pF
Output:	55.0 pF
Feedthrough:	2.4 pF
Capacitance: Grounded grid	
Input:	175.0 pF
Output:	57.0 pF
Feedthrough:	0.5 pF
Cooling:	Liquid & Forced Air
Base:	Special, Graduated rings
Air Socket:	SK-1510
Air Chimney:	---
Boiler:	---
Length:	18.0 in; 457.2 mm
Diameter:	8.0 in; 203.2 mm
Weight:	60.0 lb; 27.3 kg

### BENEFITS:

- Worldwide brand name recognition
- Over 85 years technical expertise

### APPLICATIONS:

- Science

<sup>1</sup> Characteristics and operating values are based upon performance tests. These figures may change without notice as the result of additional data or product refinement.

CPI Eimac Division should be consulted before using this information for final equipment design.

<sup>2</sup> Capacitance values are for a cold tube as measured in a special shielded fixture in accordance with Electronic Industries Association Standard RS-191.

RANGE VALUES FOR EQUIPMENT DESIGN			
	Min.	Max.	
Filament Current @ 10.0 Volts .....	280.0	310.0	A
Interelectrode Capacitances (grounded cathode connection) <sup>2</sup> :			
Cin .....	410	470	pF
Cout .....	50	60	pF
Cgp .....	1.5	3.2	pF

### PULSED REGULATOR SERVICE & SWITCH TUBE

DC ANODE VOLTAGE.....	60	kV	DC GRID BIAS .....	-2.0	kV
DC SCREEN VOLTAGE.....	2.5	kV	ANODE DISSIPATION .....	100	kW
DC ANODE CURRENT .....	15	A	SCREEN DISSIPATION .....	1750	W
PEAK CATHODE CURRENT .....	100	A	GRID DISSIPATION .....	500	W

With a history of producing high quality products, we can help you with your tetrode.

Contact us at [MPPMarketing@cpii.com](mailto:MPPMarketing@cpii.com) or call us at +1 650-846-2800. The data should be used for basic information only.

Formal, controlled specifications may be obtained from CPI for use in equipment design.



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For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design.

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