

# —Standard Valves—

4215-A  
Valve

## 4215-A VALVE

TRIODE.

For replacement purposes only.

### SPECIFICATION.

#### Cathode.

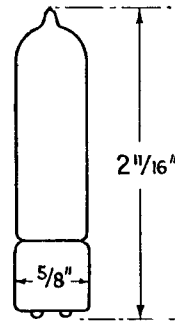
Oxide coated filament.  
Constant current type.

#### Base.

Miniature 4-pin bayonet thrust.

#### Dimensions.

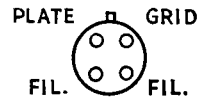
Overall length  $2\frac{11}{16}$ " (6.9 cms.)  
Maximum diameter  $\frac{5}{8}$ " (1.6 cms.)  
Net weight 0.02 lbs. (10 gms.)



#### Constants.

Filament current 0.25 amps.  
Nominal filament voltage 1.1 volts  
\*Impedance 25,000 ohms  
\*Amplification factor 6  
\*Mutual conductance 0.24 mA. per volt  
Grid-anode capacity 3.5  $\mu\mu\text{F}$ .  
Anode-filament capacity 1.5  $\mu\mu\text{F}$ .  
Grid-filament capacity 2.0  $\mu\mu\text{F}$ .

\* at anode current of 1 mA.



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage 100 volts  
Maximum direct anode current 2.2 mA.

V.4215-A.1  
Nov. 1937

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## TYPICAL OPERATING CONDITIONS.

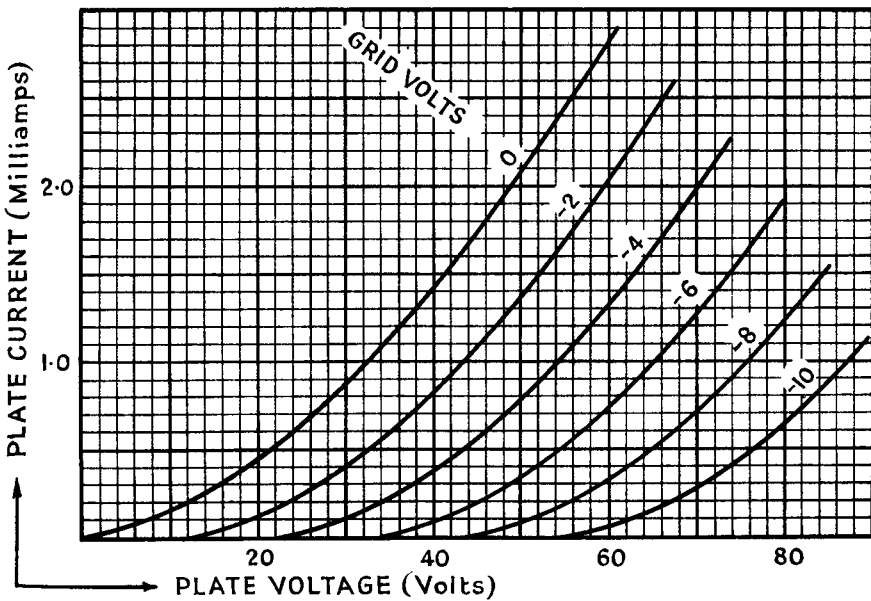
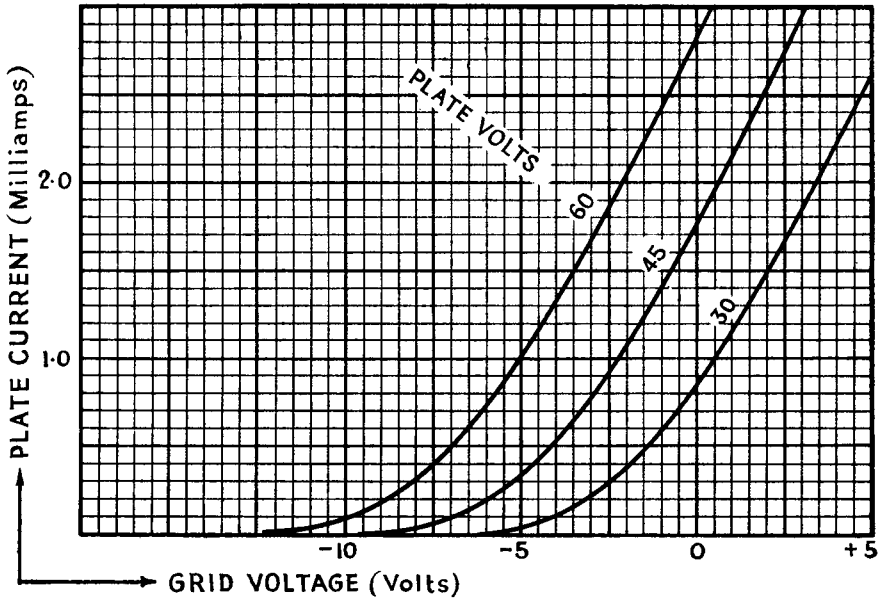
Anode voltage	Grid bias	Anode current	Amplification factor	Anode resistance	Load resistance	Power output	Voltage output	Second harmonic
volts	volts	mA.		ohms rp	R	mW.	peak volts	db
45.0	—3.0	1.0	5.7	16,500	R=rp R=2rp R=5rp	2.2 1.9	14.0	29 34 39
45.0	—1.5	1.6	5.8	14,500	R=rp R=2rp R=5rp	0.60 0.55	7.2	40 45 49
60.0	—3.0	2.0	5.7	13,500	R=rp R=2rp R=5rp	2.9 2.6	14.5	35 40 45
67.5	—6.0	1.4	5.6	15,500	R=rp R=2rp R=5rp	9.4 8.3	28.5	25 30 35
67.5	—4.5	2.0	5.7	14,000	R=rp R=2rp R=5rp	6.0 5.5	22.0	31 36 40
*67.5	—4.0	2.0	5.7	13,500	R=rp R=2rp R=5rp	5.0 4.5	19.5	34 38 43
*90.0	—8.0	2.2	5.6	14,000	R=rp R=2rp R=5rp	18 16	40.0	26 31 37
*100.0	—10.0	2.1	5.6	14,500	R=rp R=2rp R=5rp	26 23	47.0	24 29 36
22.5 45.0 67.5	—4.0 —9.0 —14.0	0.01 0.01 0.01	Anode current detection					
22.5 *45.0	+1.0 +1.0	1.0 2.6	Grid current detection. Grid bias usually obtained by connecting grid return to positive end of filament.					

\* Maximum operating conditions.

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These curves are taken with direct filament heating, grid and anode voltages being referred to negative end of filament.



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