

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



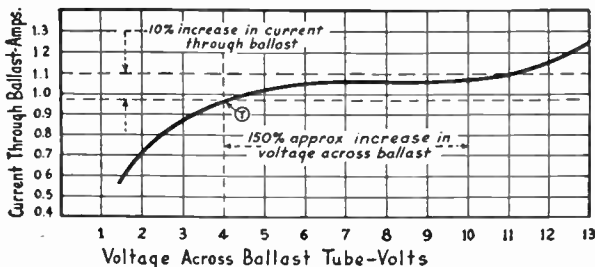
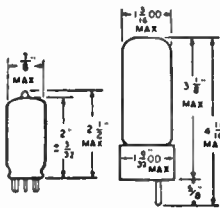
T9 BULB

AUTOMATIC REGULATION

WHAT IT IS! AMPERITE is an automatic "rheostat" designed to keep the current in a circuit at a definite value, e.g., 0.5 amps. Should the supply voltage increase, the AMPERITE will automatically increase in resistance to take up the increase in supply voltage. Since AMPERITE is a constant current device, it can only be used on a fixed load.

SIZES:

- T-5 1/2 L. Miniature, O.D. 1 1/8"; seated height, 2 3/8".
- T-6 1/4 L. Miniature, O.D. 1 3/8"; seated height, 2 1/2".
- T-9, Octal base, O.D. 1 1/8"; seated height, 3 1/8".



Ⓣ = Threshold Current & Voltage

CHARACTERISTIC CURVE

Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current-voltage threshold value. For example:

AMPERITE NUMBER	3-4	3H4	10-7	12-11	12H11
THRESHOLD CURRENT	0.3	0.35	1.0	1.2	1.25
THRESHOLD VOLTAGE	4.0	4.0	7.0	11.0	11.0

SPECIAL BALLAST TUBES

List \$3.00 — Dealer Cost \$1.80

D6-1E	1H20	3V4	4A10	6-3	**7HTF3	9A10	12-3
*16T4	1H22	3-7	4-12	6-4	**7HTF4	9-11	12-4
**D6TK7	**2PK7	*3T7	4H3	6-4A	7H4	10T1	12-7
*B6T11	2A10	**3TF7	4H1	6-4B	7H4B	**10TF2	12A10
**16TF10	2A12	3A10	**4HTF4	*6T4	7H7	10-3	12-11
**16TF20	2A20	3-11	**1HTF7	**6TF4	7H11	10-4A	13-4
D7-20	*2HT2	*3T11	4H10	6-7	**8TF2	10-4B	15-2
D7H4	2H1	*3TF11	4H11	**6TF7	8-3B	10-4C	15-4
*17HT1	*2HT1	*3TF12	5E1	6-8B	8-4	10-4D	16-1
*17HT11	**2HTF1	3-14	**5TF2	6A10	8A10	10-4E	17-3
1A10	2H10	3-16	5-4	6-11	**9TF2	10A10	20-3
**1TF10	3-2	3A20	**5TF4	6-12	9-3	10A12	20-4
1-15	*3T2	3-38A	5A10	6-13	9-4	10-25	22-4
*1HT2	**3TF2	3-50A	5-11	6A15	9-4A	11-3	24-3
1H4	**3TK2	3H1-7	5-16	6-36	9-7	11-4	34-2
*1HT1	3-1	3H4	5H3	6H4	9-8	11A10	35-4
1H10	*3T4	**3HTF4	5H1	**6HTF4		11-11	40-6E
*1HTF10	*3TF4	3H11	5H10	6H6			41-7E
*1HT11	**3TF4A	3H-25	5H11	7-4			55-1
**1HTF11	**3TFV4			**7TF4			55-4
				7A10			
				7-11			
				**7HTF2			

124A—List \$10.00

*T denotes T5 1/2 bulb-7 pin miniature, e.g., 3T4.
 **TF denotes T6 1/2 bulb-9 pin miniature, e.g., 3TF4.
 Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

ADVANTAGES

Light . . . Compact . . . No Moving Parts (Will withstand vibrations of 10G min.) . . . Hermetically Sealed (Not affected by altitude or humidity changes) . . . Can Be Changed as Easily as a Radio Tube . . . Operates Equally Well on AC or DC . . . Inexpensive.

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation per AMPERITE 50w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AMBIENT EFFECTS

Variations of -50° to +70° C. will change the current of an AMPERITE approximately ±2% on the regulating portion of the curve.

LIFE EXPECTANCY

Average life 2000 hours prox.; if AMPERITE filament is operated at black temperature—average life 5000 hours prox., depending on use.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

Power Supply	Dry Cells	6 Volts	12 Volts	26 Volts	115-Volts
Variation	2.2-3.0V	5.5-7.5V	10.0-14.0V	22.0-30.0V	105-125V
Desired on load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	17.5-18.5V	90- 95V
Required on AMPERITE Current	0.4-1.0V	1.6-3.4V	3.9- 7.6V	4.5-11.5V	15- 30V
Variation	.29-.32a	.29-.31a	.29-.31a	.29-.32a	.29-.32a

The above chart shows the maximum load voltage for the given supply to obtain ±2% regulation on load. Better regulation is obtainable by increasing the voltage across the AMPERITE. In general, the higher the percent of the supply voltage taken by the AMPERITE, the better the regulation.