TRANSFORMERS BY ALTEC LANSING CORPORATION

Altec Lansing has developed a complete new line of transformers which have the necessary frequency range, power carrying capacity, low insertion loss, low phase shift, and ample electro-magnetic and electrostatic shielding, good balance of windings for push pull operation, and proper impregnation and treatment so that heat and moisture will not adversely affect their continued operation. Ability to handle the rated power at low frequencies insures that the intermodulation products will be very low.

The use of negative feedback in amplifiers requires that the frequency range of the amplifier must be made much broader than the actual amplification characteristic needed. The required frequency range over which the transmission characteristics of the feedback loop must be controlled is surprisingly high and represents the price that must be paid in order to obtain the benefits of negative feedback.

Altec Lansing transformers, unless otherwise specified, have a transmission range of 20 - 20,000 cycles (± 1 db) and this condition will hold over a range of 60 db in power. In most cases the transformers will have good transmission up to 50 KC so that it is not necessary to use special compensation in the feedback path when the transformer is part of it. The same situation is present at the very low frequencies since in general the transformers will not be down over 3 db at 10 cycles.

ALTEC LANSING CORPORATION

1161 NORTH VINE ST., HOLLYWOOD 38, CALIF. • 250 WEST 57TH ST., NEW YORK 19, N. Y.

ALTEC LANSING CORPORATION

INPUT TRANSFORMERS

TB-103

A low level input transformer. 500 ohm, 250 ohm, or 30 ohm primary impedance. 70,000 ohm secondary impedance. Secondary may be used single ended or in push-pull arrangement. Secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in case which provides 25 db of magnetic shielding.

CASE DIMENSIONS: 1⅝" round x 1¾" high.
WEIGHT: 6½ oz.
APPROXIMATE SHIPPING WEIGHT: 9½ oz. . . . . LIST PRICE ~~$25.00~~ 33.33

TB-105

A low level input transformer designed to bridge a 500 ohm line. 5000 ohm primary impedance. 245,000 ohm secondary impedance. Frequency response flat within 2db from 50 c.p.s. to 20,000 c.p.s. Maximum operating level—10db (6 mw ref.) Potted in case which provides 20db of magnetic shielding. It has leads 12" long.

CASE DIMENSIONS: 1⅝" round x 1¾" high
WEIGHT: 6½ oz.
APPROXIMATE SHIPPING WEIGHT: 9½ oz. . . . . LIST PRICE ~~$13.00~~ 16.00

TBB-102

A low level input transformer. 250 ohm, 125 ohm, 62½ ohm or 31 ohm primary impedance. 70,000 ohm secondary impedance. Secondary may be used single ended or in push-pull arrangement. Secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in a nest of high permeability cans, within the case, which provides 90 db of magnetic shielding.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 9 oz.
APPROXIMATE SHIPPING WEIGHT: 1¾ lb. . . . . LIST PRICE ~~$40.00~~ 53.33

TBB-103

A low level input transformer. 500 ohm, 250 ohm or 30 ohm primary impedance. 70,000 ohm secondary impedance. Secondary may be used single ended or in push-pull arrangement. Secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in nest of high permeability cans, within the case, which provides 90 db of magnetic shielding.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 9 oz.
APPROXIMATE SHIPPING WEIGHT: 1¾ lb. . . . . LIST PRICE ~~$35.00~~ 38.67

ALTEC LANSING CORPORATION

TBB-115

A low level input transformer. 20 ohm or 5 ohm primary impedance. 70,000 ohm secondary impedance. Secondary may be used single ended or in push-pull arrangement. Secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in nest of high permeability cans, within the case, which provides 90 db of magnetic shielding.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 9 oz.
APPROXIMATE SHIPPING WEIGHT: 1¾ lb. . . . . LIST PRICE ~~$40.00~~ 53.33

TL-101-B

A high level input transformer. 14 ohm, 56 ohm, 125 ohm, 220 ohm, or 500 ohm primary impedance. 30,000 ohm or 7,500 ohm secondary impedance. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +30 db (6 watts) from a 6 mw reference.

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
WEIGHT: 5 lbs.
APPROXIMATE SHIPPING WEIGHT: 5½ lbs. . . . . LIST PRICE ~~$40.00~~ 53.33

OUTPUT TRANSFORMERS

TJ-152-A

An output transformer. 9,500 ohm or 2,375 ohm primary impedance. 3,000 ohm, 2,000 ohm, 750 ohm and 500 ohm secondary impedance. A 195 ohm tertiary which should not be loaded with less than 15,000 ohms is provided for feedback connections. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +39 db (48 watts) (6 mw reference). Maximum primary D.C. plate current 100 ma.; D.C. unbalance in primary should not exceed 10 ma.

CASE DIMENSIONS: 4"x 4⅝"x 5¼" high.
WEIGHT: 9¾ lbs.
APPROXIMATE SHIPPING WEIGHT: 11½ lbs. . . . . LIST PRICE ~~$60.00~~ 80.00

TJ-211-B

An output transformer. 9,500 ohm or 2,375 ohm primary impedance. 10 ohm and 20 ohm secondary impedance. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +39 db (48 watts) (6 mw reference). Maximum primary D.C. plate current is 100 ma.; D.C. unbalance in primary windings should not exceed 10 ma.

CASE DIMENSIONS: 4"x 4⅝"x 5¼" high.
WEIGHT: 9¾ lbs.
APPROXIMATE SHIPPING WEIGHT: 11½ lbs. . . . . LIST PRICE ~~$55.00~~ 60.00

ALTEC LANSING CORPORATION

TL-216-A

An output transformer. 6,600 ohm or 1,650 ohm primary. 14 ohm, 56 ohm, 125 ohm, 220 ohm, or 500 ohm secondary. A 20 ohm tertiary which should not be loaded with less than 2,000 ohms is provided for feedback connections. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +35 db (19 watts) (6 mw reference). Maximum primary D.C. is 65 ma. Primary winding D.C. unbalance should not exceed 7 ma.

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
WEIGHT: 5½ lbs.
APPROXIMATE SHIPPING WEIGHT: 6 lbs. . . . . LIST PRICE ~~$32.00~~ 42.67

TL-217-A

An output transformer. 6,600 ohm primary center-tapped. 10 ohm and 20 ohm secondary. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +35 db (19 watts) (6 mw reference). Maximum primary D.C. is 65 ma. Primary winding D.C. unbalance should not exceed 7 ma.

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
WEIGHT: 5½ lbs.
APPROXIMATE SHIPPING WEIGHT: 6 lbs. . . . . LIST PRICE ~~$18.00~~ 24.00

TL-217-B

An output transformer identical in design to the TL-217-A. The TL-217-B has no terminal boards. It has 12" long leads.

. . . . . LIST PRICE ~~$16.00~~ 21.33

TL-219

An output transformer. 6,600 ohm or 1,650 ohm primary. 3,000 ohm, 2,000 ohm, 250 ohm, and 500 ohm secondary. A 20 ohm tertiary which should not be loaded with less than 2,000 ohms is provided for feedback connections. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +35 db (19 watts) (6 mw reference). Maximum primary D.C. is 65 ma. Primary winding D.C. unbalance should not exceed 7 ma.

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
WEIGHT: 5½ lbs.
APPROXIMATE SHIPPING WEIGHT: 6 lbs. . . . . LIST PRICE ~~$35.00~~ 46.67

TM-220-A

An output transformer. 4,000 ohm or 1,000 ohm primary. 16 ohm, 8 ohm, 4 ohm, or 2 ohm secondary. Secondary may be operated with loads up to three times rated impedances. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +41 db (75 watts) (6 mw reference). Maximum primary D.C. is 120 ma. Primary winding D.C. unbalance should not exceed 12 ma.

CASE DIMENSIONS: 5⅜"x 5⅜"x 6" high.
(This transformer is regularly furnished with a flanged mounting plate 5⅜"x 6").
WEIGHT: 21 lbs.
APPROXIMATE SHIPPING WEIGHT: 23 lbs. . . . . LIST PRICE ~~$60.00~~ 80.00

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ALTEC LANSING CORPORATION

TP-202

An output transformer. 20,000 ohm and 5,000 ohm primary. 62½ ohm, 125 ohm, 250 ohm, and 500 ohm secondary. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +15 db (0.2 watt) (6 mw reference). Transformer potted in nest of high permeability cans within the case, which with the astatically balanced design provides 60 db of magnetic shielding. Vacuum tube plate current should be parallel fed through resistor or choke such as TBB-301.

CASE DIMENSIONS: 2½"x 2⅞"x 3½" high.
WEIGHT: 2 lbs.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 5 oz. . . . . LIST PRICE ~~$35.00~~ 46.67

TP-204

An output transformer. 12,500 ohm and 3,125 ohm primary. 62½ ohm, 125 ohm, 250 ohm and 500 ohm secondary. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +15 db (0.2 watt) (6 mw reference). Transformer potted in nest of high permeability cans within the case, which with the astatically balanced design provides 60 db of magnetic shielding. Vacuum tube current should be parallel fed through resistor or choke such as TBB-301.

CASE DIMENSIONS: 2½"x 2⅞"x 3½" high.
WEIGHT: 2 lbs.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 5 oz. . . . . LIST PRICE ~~$40.00~~ 53.33

TP-211

An output transformer. 3500 ohm primary center-tapped. 10 ohm secondary 10 ohm tertiary for feedback. Frequency response flat within 2 db from 50 c.p.s. to 20,000 c.p.s. Maximum operating level +30db (6 mw ref.) Maximum primary D.C. is 70 ma. Primary winding D.C. unbalance should not exceed 7 ma.

CASE DIMENSIONS: 2½" x 2⅞" x 3½" high
WEIGHT: 2 lbs. 9 oz.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 14 oz. . . . . LIST PRICE ~~$14.00~~ 18.67

POWER TRANSFORMERS

TJ-604-B

A power transformer. 105-117-130V, 50-60 cycle primary. Secondary #1 350-0-350 volts, 125 ma. D.C. Secondary #2 6.3V, 5 amp., center-tapped. Secondary #3 5V, 3 amp. Primary separated from secondaries by an electrostatic shield.

CASE DIMENSIONS: 4"x 4⅝"x 5¼" high.
WEIGHT: 9½ lbs.
APPROXIMATE SHIPPING WEIGHT: 11¼ lbs. . . . . LIST PRICE ~~$28.00~~ 37.33

TJ-618-D

A power transformer. 130V, 117V, 105V, 50-60 cycle primary. Secondary #1 6.3V, 3.5 amp., center-tapped. Secondary #2 5V, 3 amp. Secondary #3 605-565-0-565-605 V, 150 ma. D.C.

CASE DIMENSIONS: 4"x 4⅝"x 5¼" high.
WEIGHT: 9½ lbs.
APPROXIMATE SHIPPING WEIGHT: 11¼ lbs. . . . . LIST PRICE ~~$30.00~~ 40.00

ALTEC LANSING CORPORATION

TL-608

A power transformer. 117 volt, 50-60 cycle primary. It has 3 secondaries all separated from the primary by an electrostatic shield. Secondary #1 350-0-350 volts at 100 ma. D.C. Secondary #2 5V at 3 amp., center-tapped. Secondary #3 6.3V at 2.4 amp., center-tapped. This transformer has no terminal boards. It has 12" long leads.

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
WEIGHT: 5½ lbs.
APPROXIMATE SHIPPING WEIGHT: 6 lbs. . . . . LIST PRICE ~~$20.00~~ 26.67

INTERSTAGE OR BRIDGING TRANSFORMERS

TB-151

A low level interstage or bridging transformer. 10,000 ohm or 2,500 primary impedance. 40,000 ohm or 10,000 ohm secondary impedance. Both primary and secondary may be used single ended or in push-pull arrangement. Primary windings and secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in case which provides 20 db of magnetic shielding.

CASE DIMENSIONS: 1⅝" round x 1¾" high.
WEIGHT: 6½ oz.
APPROXIMATE SHIPPING WEIGHT: 9½ oz. . . . . LIST PRICE ~~$30.00~~ 40.00

TBB-151

A low level interstage or bridging transformer. 10,000 ohm or 2,500 ohm primary impedance. 40,000 ohm or 10,000 ohm secondary impedance. Both primary and secondary may be used single ended or in push-pull arrangement. Primary windings and secondary windings have balanced capacities to ground. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level -20 db (6 mw reference). Electrostatic shield between primary and secondary windings. Potted in a nest of high permeability cans, within the case, which provides 90 db of magnetic shielding.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 9 oz.
APPROXIMATE SHIPPING WEIGHT: 1¾ lbs. . . . . LIST PRICE ~~$40.00~~ 46.67

MATCHING TRANSFORMERS

TL-262

A matching transformer. 250 ohm, 500 ohm, and 1,000 ohm primary. 10 ohm and 20 ohm secondary. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +35 db (19 watts) (6 mw reference).

CASE DIMENSIONS: 3½"x 3⅝"x 4⅛" high.
(This transformer is regularly furnished with a flanged mounting plate 4½"x 3⅝").
WEIGHT: 6½ lbs.
APPROXIMATE SHIPPING WEIGHT: 7 lbs. . . . . LIST PRICE ~~$18.00~~ 24.00

ALTEC LANSING CORPORATION

TP-255-A

A hybrid or three winding transformer designed to operate from two 500 ohm sources into a 500 ohm load. A balancing resistor of approximately 250 ohm is required in the primary circuit. For maximum attenuation between the two sources, the exact value of this resistor should be determined from measurements made in the circuits where the transformer is used. The correct value, under average circumstances, will yield a minimum attenuation of from 27 to 30 db over the frequency range between 20 c.p.s. and 10,000 c.p.s., with a maximum attenuation of approximately 50 db at some point between 500 c.p.s. and 1,000 c.p.s. Frequency response from either source to the load is flat within 1 db from 20 c.p.s. to 10,000 c.p.s. and within 2 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +15 db (O.2 watt) (6 mw reference). Has an astatically balanced design which attenuates magnetic pickup approximately 30 db.

CASE DIMENSIONS: 2½"x 2⅞"x 3½" high.
WEIGHT: 2 lbs.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 5 oz. . . . . LIST PRICE ~~$45.00~~ 56.00

TP-256-A

A matching transformer. 500 ohm, 250 ohm, 125 ohm and 62½ ohm primary, and 500 ohm, 250 ohm, 125 ohm and 62½ ohm secondary or 600 ohm, 300 ohm, 150 ohm and 75 ohm primary, and 600 ohm, 300 ohm, 150 ohm and 75 ohm secondary. Frequency response flat within 1 db from 20 c.p.s. to 20,000 c.p.s. Maximum operating level +15 db (0.2 watt) (6 mw reference). Transformer astatically balanced, which with the shield shell provides approximately 40 db of magnetic shielding. Electrostatic shield between primary and secondary prevents transmission of longitudinal currents. When used in balanced circuits, longitudinal current attenuation will be in excess of 70 db.

CASE DIMENSIONS: 2½"x 2⅞"x 3½" high.
WEIGHT: 2 lbs. 4 oz.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 9 oz. . . . . LIST PRICE ~~$45.00~~ 60.00

CHOKES

TBB-301

An audio-frequency parallel plate feeder choke. Used to keep plate current out of coupling transformer. Choke has two coils which in series will have inductance greater than 100 henries with 7.5 milliamperes of D.C.; D.C. resistance 4,500 ohms. Designed for use with TP-202 and TP-204 transformers.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 7 oz.
APPROXIMATE SHIPPING WEIGHT: 1 lb. 10 oz. . . . . LIST PRICE ~~$18.00~~ 24.00

TBB-314

A filter choke. Inductance is greater than 35 H. with 40 ma. of D.C. and a 100 volt, 60 cycle signal. D.C. resistance approximately 400 ohms.

CASE DIMENSIONS: 2¼"x 2⅜"x 2⅞" high.
WEIGHT: 1 lb. 10 oz.
APPROXIMATE SHIPPING WEIGHT: 1 lb. 13 oz. . . . . LIST PRICE ~~$16.00~~ 21.33

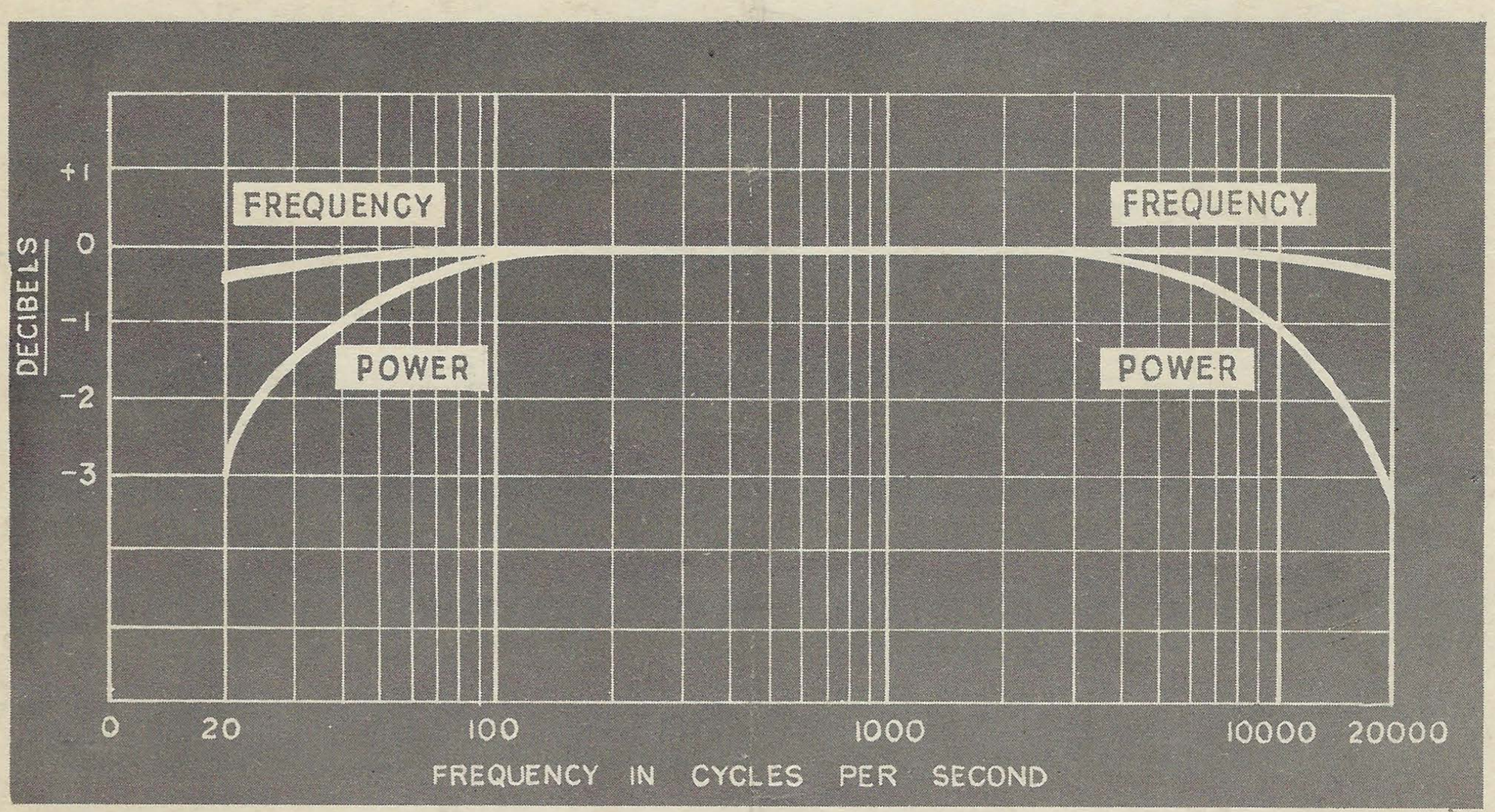
TP-506-B

A filter choke. Inductance is 9 henries when 150 ma. of D.C. is flowing. D.C. resistance approximately 170 ohm.

CASE DIMENSIONS: 2½"x 2⅞"x 3½" high.
WEIGHT: 2 lbs. 1 oz.
APPROXIMATE SHIPPING WEIGHT: 2 lbs. 6 oz. . . . . LIST PRICE ~~$25.00~~ 20.00

ALTEC LANSING CORPORATION

Power-Frequency Characteristics of Altec Lansing Output Transformers



THIS CURVE REPRESENTS THE MAXIMUM EXPECTED POWER & FREQUENCY DEVIATION FROM THE RATED MID-RANGE VALUE

Altec Lansing is prepared to meet the most difficult requirements for high quality audio transformers and invites inquiries regarding any specific requirements which you may have to meet.

Hermetically sealed transformers built to U. S. Navy specifications.

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