

TZ-40

ZERO BIAS TRIODE
40 WATTS PLATE DISSIPATION
The Wonder Tubes

\$3.50

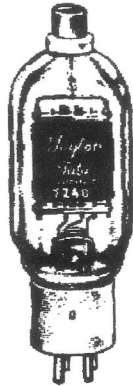
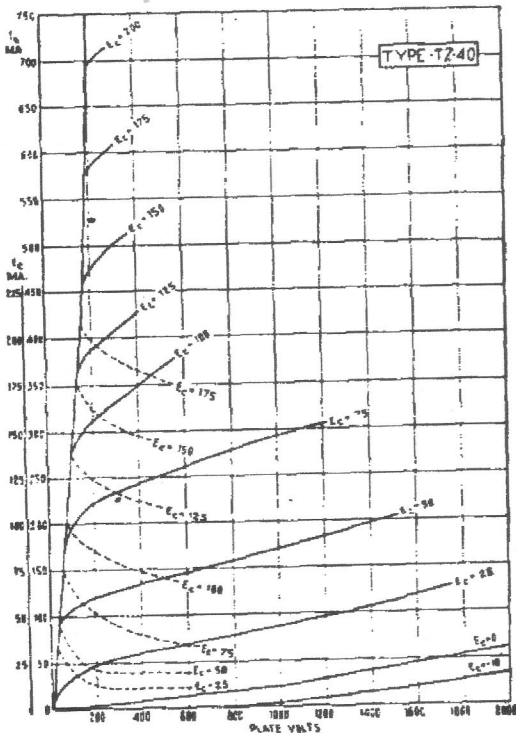
DELIVER 250 WATTS CLASS B AUDIO
OUTPUT

THE IDEAL DOUBLER TUBE

CLASS B AUDIO DATA

In the chart below, the current value is the maximum average value as would be indicated on the plate current meter with sine wave input. For the same peak output with voice input the maximum average plate current as indicated on meter will be approximately 50 to 60 per cent of this value.

Audio Watts Output	750	1000	1250	1500	Supply Voltage
100	6000 230 ma. 4.0	15500 145 ma. 2.0			←Plate to Plate load ←Max. Av. Ip. ←Watts drive
150		8800 240 ma. 4.4	16000 175 ma. 2.75W		←Plate to Plate load ←Max. Av. Ip. ←Watts drive
175		7350 280 ma. 5.5	14000 200 ma. 3.4	20000 170 2.75	←Plate to Plate load ←Max. Av. Ip. ←Watts drive
225			10000 280 ma. 6.0	16000 215 3.85	←Plate to Plate load ←Max. Av. Ip. ←Watts drive
250				12000 250 ma. 6.0	←Plate to Plate load ←Max. Av. Ip. ←Watts drive



GENERAL CHARACTERISTICS

Filament Volts.....	7.5
Filament Current, amps.....	3.0
Amplification Factor.....	62
Plate Dissipation, watts.....	40

Interelectrode Capacities

Grid-Plate, mmf.....	5.0
Grid-Filament, mmf.....	4.8
Plate-Filament, mmf.....	0.8

Overall Dimensions

Maximum Length, inches.....	6 1/4
Maximum Diameter, inches.....	2 1/8
Alsimag	UX 4 Prong Base

CLASS C TELEGRAPHY. Maximum Ratings

	C.C.S.	I.C.A.S.
D. C. Plate Volts	1250	1500
D. C. Plate Current, ma.....	125	150
D. C. Grid Current, ma.....	45	45
D. C. Grid Volts	250	250
Plate Dissipation, watts.....	40	40*

Typical Operating Conditions

D. C. Plate Volts	1250	1500
D. C. Plate Current, ma.....	125	150
D. C. Grid Current, ma.....	31	38
D. C. Grid Bias Volts.....	-90	-90
From Grid Leak of, ohms.....	2900	2370
Plate Dissipation, watts.....	40	60*
Power Output, watts.....	116	185
Driving Power, watts.....	7.25	10

* It is permissible to allow the plate dissipation to approach twice the normal rating in telegraph service where key down condition exists approximately 50 per cent of the time.

CLASS C TELEPHONY. Maximum Ratings

	C.C.S.	I.C.A.S.
D. C. Plate Volts	1000	1250
D. C. Plate Current, ma.....	115	125
D. C. Grid Current, ma.....	45	45
D. C. Grid Volts	250	250
Plate Dissipation, watts.....	30	40*

Typical Operating Conditions

D. C. Plate Volts	1000	1250
D. C. Plate Current, ma.....	100	125
D. C. Grid Current, ma.....	26	30
D. C. Grid Bias Volts.....	-65	-100
From Grid Leak of, ohms.....	2500	3300
Plate Dissipation, watts.....	27	40*
Power Output, watts.....	73	116
Driving Power, watts.....	4.6	7.5

* The intermittent nature of voice modulation in amateur transmission permits the use of the maximum plate dissipation rating.

CLASS B AUDIO

Typical Operation Conditions for Two Tubes

	C.C.S.		I.C.A.S.	
D. C. Plate Volts	1250	1000	1500	1250
D. C. Plate Current, ma.....	240	200	250	280
D. C. Grid Bias Volts.....	-4.5	0	-9	-4.5
Power Output, watts.....	200	130	250	225*
Driving Power, watts.....	4.5	2.8	6	8
Plate to Plate Load, ohms.....	11000	11000	12000	10000
Peak Grid to Grid Volts.....	242	200	285	269

* The intermittent nature and low average power in a voice wave permits use of higher peak power output without overloading the tubes. Power outputs listed are for sine wave voltage and are intended for use in calculating modulating capabilities. Actually the power output is much less with voice input.