Taylor CUSTOM BUILT Tubes

TZ-20

ZERO BIAS TRIODE

20 WATTS PLATE DISSIPATION

$2.25

GENERAL CHARACTERISTICS

Filament Volts	7.5
Filament Current, amps	1.75
Amplification Factor	62
Plate Dissipation, watts	20

Interelectrode Capacities

Grid-plate, mmf	4.95
Grid-filament, mmf	5.25
Plate Filament, mmf	1.0

Overall Dimensions

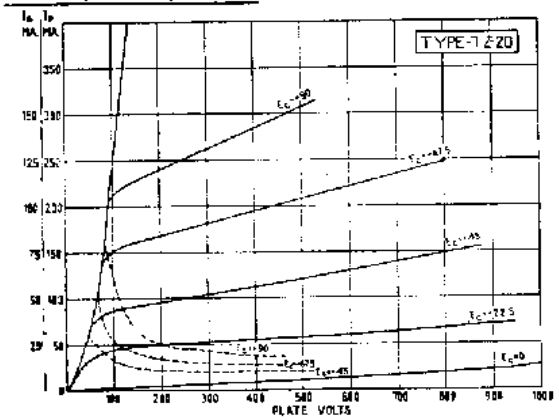
Maximum length, inches	6
Maximum diameter, inches	2¾

UX 4-Prong Alsimag Base

The TZ20 is primarily designed for zero bias Class B audio operation and no bias is required for such operation at voltages up to 800. It is the ideal Class B audio tube for outputs up to 80 watts and 4 of them push pull parallel will form a most economical 160 watt modulator. For pushpull parallel operation the reflected load impedance will be half and the output twice that for two tubes. The Class B operating conditions for the T20 and TZ20 are identical but the TZ20 avoid the necessity for a source of grid bias with good voltage regulation. At 800 volts the no-signal plate current to a pair of TZ20's will be approximately 25 to 30MA.

The chart below gives proper Class B Audio operating conditions for various outputs at different plate voltages. The most important value is the reflected load impedance which is given for the entire primary or plate to plate. 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 will be approximately 50% to 60% of this value. The TZ20 requires no bias voltage.

D.C. Plate Voltage ↓	40	50	60	70	←Audio Watts Output
800	78MA 21,000	98MA 17,000	117MA 14,000	137MA 12,000	←Max. Av. Ip. ←Plate to plate Load
700	92MA 15,000	115MA 12,000	140MA 10,000	←Max. Av. Ip. ←Plate to plate load	
600	113MA 10,200	140MA 8,100	←Max. Av. Ip. ←Plate to plate load		



CLASS C TELEGRAPHY

Maximum Ratings

D. C. Plate Volts	750
D. C. Plate Current, ma	85
D. C. Grid Current, ma	30
D. C. Grid Volts	200
Plate Dissipation, watts	20

Typical Operating Conditions

D. C. Plate Volts	750
D. C. Plate Current, ma	85
D. C. Grid Current, ma	28
D. C. Grid Bias Volts	—40
From grid leak of, ohms	1500
Plate Dissipation, watts	20
Power Output, watts	44
Driving Power, watts	3.75

CLASS C TELEPHONY

Maximum Ratings

D. C. Plate Volts	750
D. C. Plate current, ma	75
D. C. Grid current, ma	30
D. C. Grid Volts	200
Plate Dissipation, watts	15

Typical Operating Conditions

D. C. Plate Volts	750
D. C. Plate current, ma	70
D. C. Grid current, ma	23
D. C. Grid Bias Volts	—100
From grid leak of, ohms	4500
Plate Dissipation, watts	15
Power Output, watts	38
Driving Power, watts	4.8

CLASS B AUDIO

Typical Operating Conditions (for two tubes)

D. C. Plate Volts	750
D. C. Plate Current, ma	170
D. C. Grid Bias Volts	0
Power Output, watts	80
Driving Power, watts	2.6
Plate to Plate load, ohms	9000
Peak A.F. Grid to Grid Volts	195