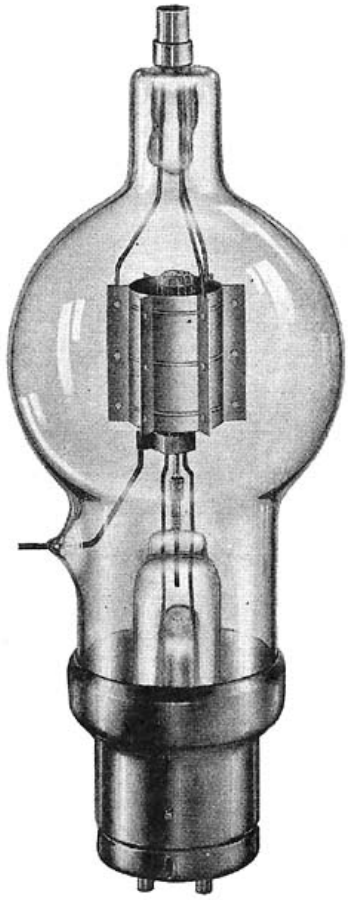
Eimac

250TL



THE DATA CONTAINED IN THIS BULLETIN IS APPLICABLE TO THE EIMAC 250TL TUBE ONLY.

Look for the identifying mark (LO) on the filament stem of the tube.

250TL contains a greatly improved thoriated cathode which is mounted in such a way that "filament distortion" is practically impossible. This new cathode operates at a very high thermionic efficiency, permitting a higher value of usable space current. Notable features are: remarkable uniformity of electrical characteristics, perfect alignment of the elements, sparkling clear glass bulbs and the "brightness" of all metal parts. Eimac's unique design, long severe exhaust technique, use of completely degassed tantalum elements and elimination of the "getter" make it possible to guarantee these tubes against failures caused by gas released internally.

Characteristics

Filament Voltage	5 to 5.1 Volts
Filament Current (approx.)	10.5 Amperes
Amplification Factor (average)	13
Grid-Plate Capacity	3.5 mmfds.
Grid-Filament Capacity	3 mmfds.
Plate-Filament Capacity	.5 mmfds.
Bulb	GT 30 Nonex
Base	Standard (50 watt)
Overall Height	9.75 Inches
Maximum Diameter	3.75 Inches

Tube must be operated vertically with ample ventilation provided.

Maximum Ratings for Frequencies Less Than 60 mc.

Maximum Plate Voltage	3000 Volts
Maximum Plate Current	350 Milliamperes
Maximum Grid Current	50 Milliamperes
Plate Dissipation (normal)	250 Watts

Typical Operating Data (Single tube)
Class "C" Telegraphy or Telephony

Plate Voltage	1000	2000	3000
Plate Current (milliamperes)	150	350	330
Grid Current (milliamperes)	45	45	45
Grid Bias Voltage	—200	—400	—600
Power Output (75% eff.)	100	500	750

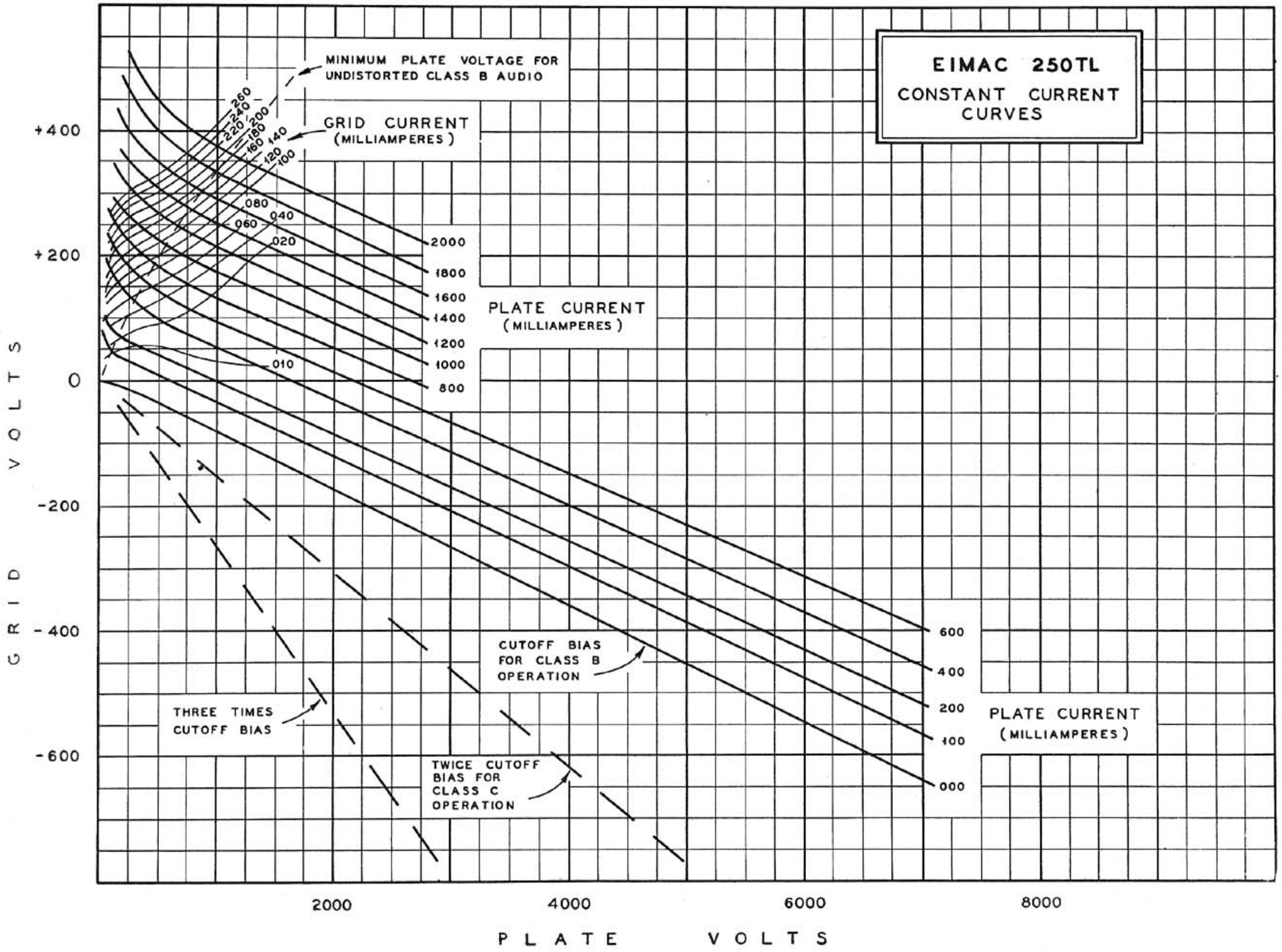
Class "B" Audio

These impedances are recommended for maximum output with the minimum of distortion. They are chosen so that the tube is operated within its recommended ratings.

Plate Voltage	Load Impedance (Plate to Plate)	Power Output
3000	12,400 Ohms	1180 Watts
2500	8,800 Ohms	1000 Watts
2000	6,000 Ohms	900 Watts
1500	4,200 Ohms	630 Watts
1250	3,280 Ohms	540 Watts
1000	2,360 Ohms	350 Watts

Typical Operating Conditions Approved by the Federal Communications Commission for Broadcast Services

	High Level Modulated	Linear Amplifier	Grid Bias
Plate Volts	2750	3000	2000
Plate Current (milliamperes)	250	125	115
Efficiency	60%	33%	22%
Power Output (watts)	350	125	50


EIMAC 250TL
CONSTANT CURRENT CURVES
MINIMUM PLATE VOLTAGE FOR UNDISTORTED CLASS B AUDIO
GRID CURRENT (MILLIAMPERES)
260
240
220
200
180
160
140
120
100
080
060
040
020
010
PLATE CURRENT (MILLIAMPERES)
2000
1800
1600
1400
1200
1000
800
CUTOFF BIAS FOR CLASS B OPERATION
THREE TIMES CUTOFF BIAS
TWICE CUTOFF BIAS FOR CLASS C OPERATION
600
400
200
100
000
PLATE CURRENT (MILLIAMPERES)
+400
+200
0
-200
-400
-600
GRID VOLTS
2000
4000
6000
8000
PLATE VOLTS