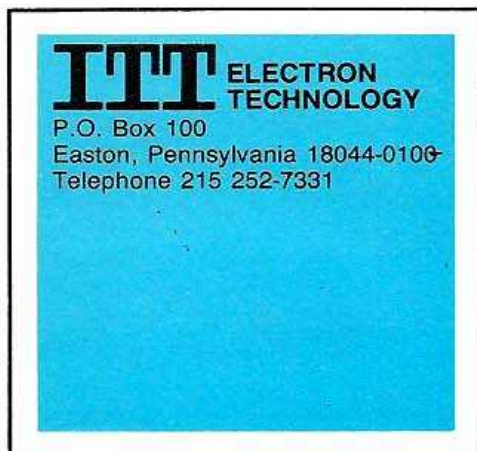




F-5874A

POWER TRIODE

DESCRIPTION:

The F-5874A is a three-electrode tube designed for use as a modulator in Class AB₁ circuits. The anode is water-cooled and capable of dissipating 25 kilowatts during Continuous Commercial Service. The cathode is a thoriated tungsten filament and may be operated on DC or single phase AC. Maximum ratings apply for audio frequency only.

ELECTRICAL

Filament Voltage	7	Volts
Filament Current	110	Amperes
Filament Starting Current	165	Amperes
Amplification Factor		
$E_c = -200$ Volts, $I_b = 1.0$ amperes	6	
Direct Interelectrode Capacitances		
Grid-Plate	38	μ f
Grid-Filament	43	μ f
Plate-Filament	12	μ f

MECHANICAL

Mounting Position	Vertical, Anode Down			
Type of Cooling	Water			
Required Water Flow				
Plate Dissipation	7.5	15	25	Kilowatts
Minimum Water Flow	4.0	7.0	12	gpm
Water Jacket Pressure Drop	1.0	2.0	6.0	psi
(when using Water Jacket as specified by RT-54841-12)				
Maximum Outgoing Water Temperature	70	$^{\circ}$ C		
Maximum Glass and Seal Temperature	180	$^{\circ}$ C		
Net Weight (Approximately)	8	Pounds		

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

Audio-Frequency Power Amplifier and Modulator - Class AB₁

Maximum Ratings, Absolute Values

DC Plate Voltage	8,000	Volts
Maximum Signal DC Plate Current**	5	Amperes
Maximum Signal Plate Input**	30	Kilowatts
Plate Dissipation**	25	Kilowatts

Typical Operation

(Unless otherwise specified, values are for two tubes)

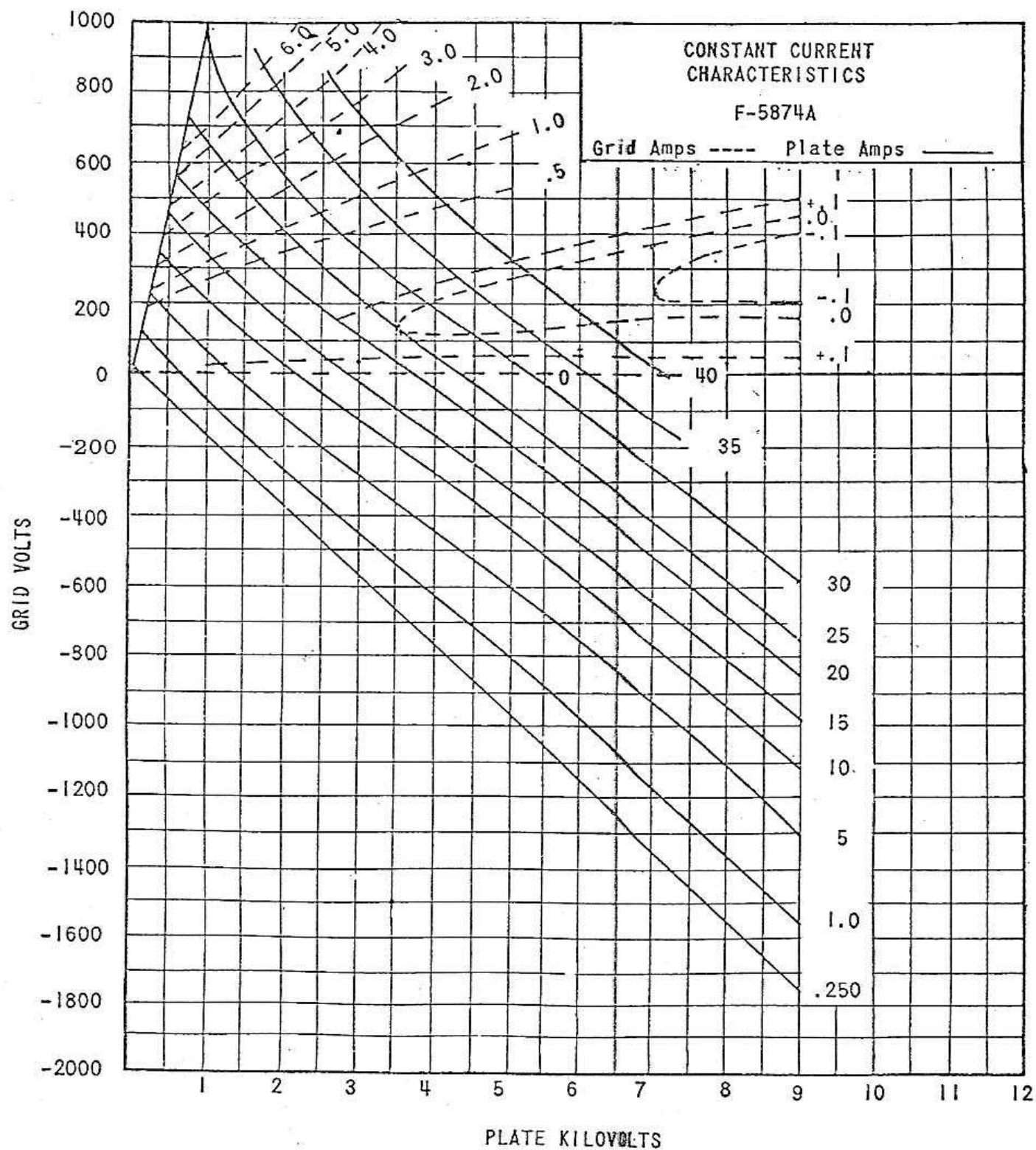
DC Plate Voltage	3750	5000	7000	Volts
DC Grid Voltage	-650	-900	-1400	Volts
Peak A-F Grid-to-Grid Voltage	1260	1760	2740	Volts
Zero Signal DC Plate Current	0.6	0.8	.500	Amperes
Maximum Signal DC Plate Current	2.8	2.6	3.2	Amperes
Effective Load Resistance Plate-to-Plate	2250	3700	4600	Ohms
Maximum Signal Driving Power	0	0	0	Watts
Maximum Signal Power Output	5.4	7.4	13.75	Kilowatts

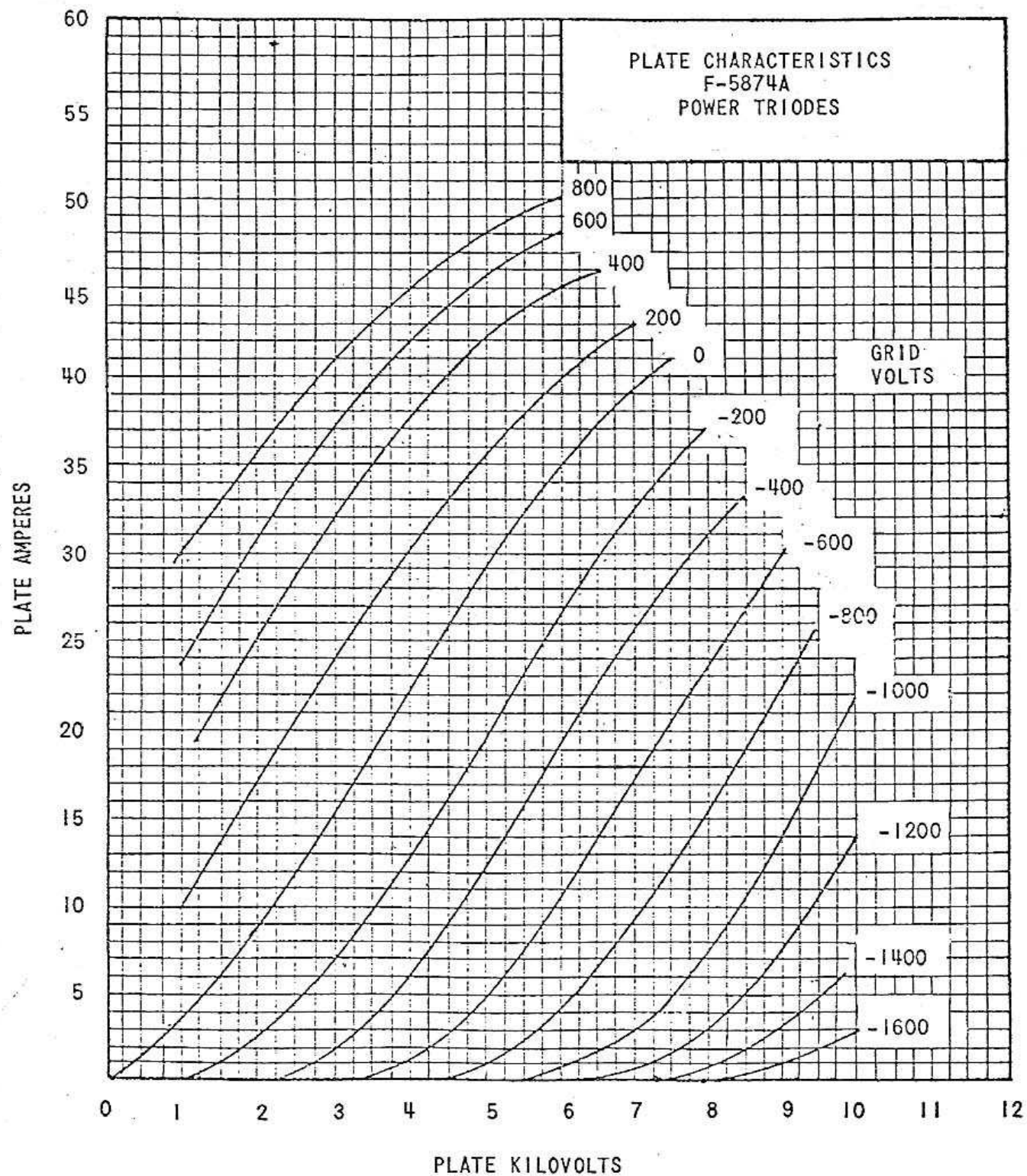
**Averaged over any audio frequency cycle of sine wave form.

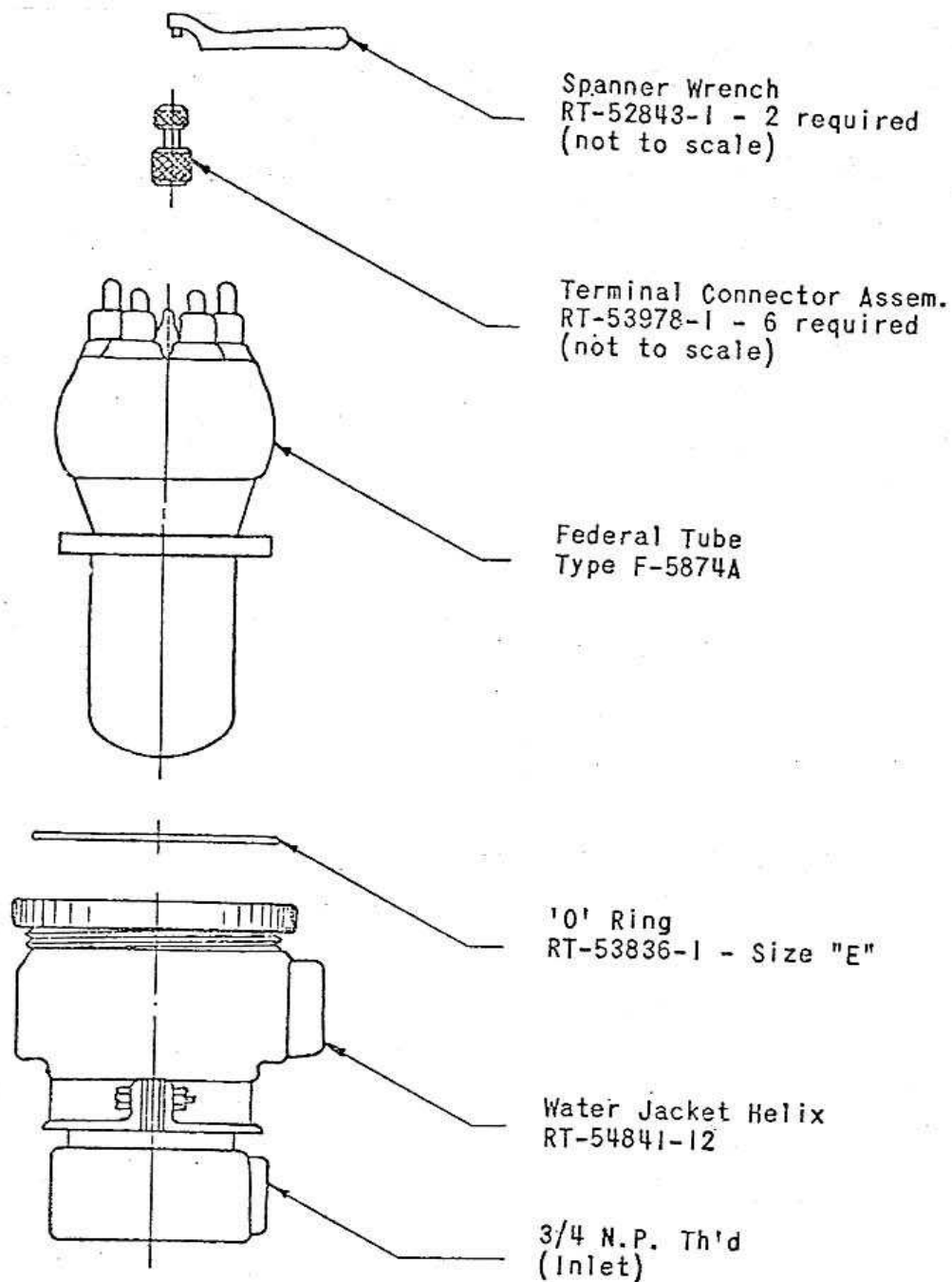
*Supersedes F-5874

Additional information for specific applications can be obtained from the:

ITT ELECTRON TECHNOLOGY DIVISION
 Applications Department
 P.O. Box 100
 Easton, Pennsylvania 18042





ACCESSORIES

