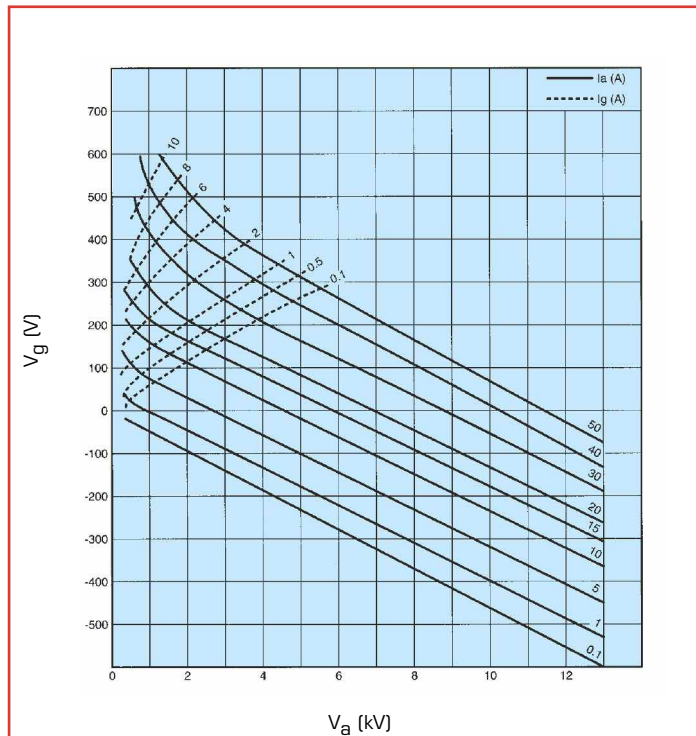


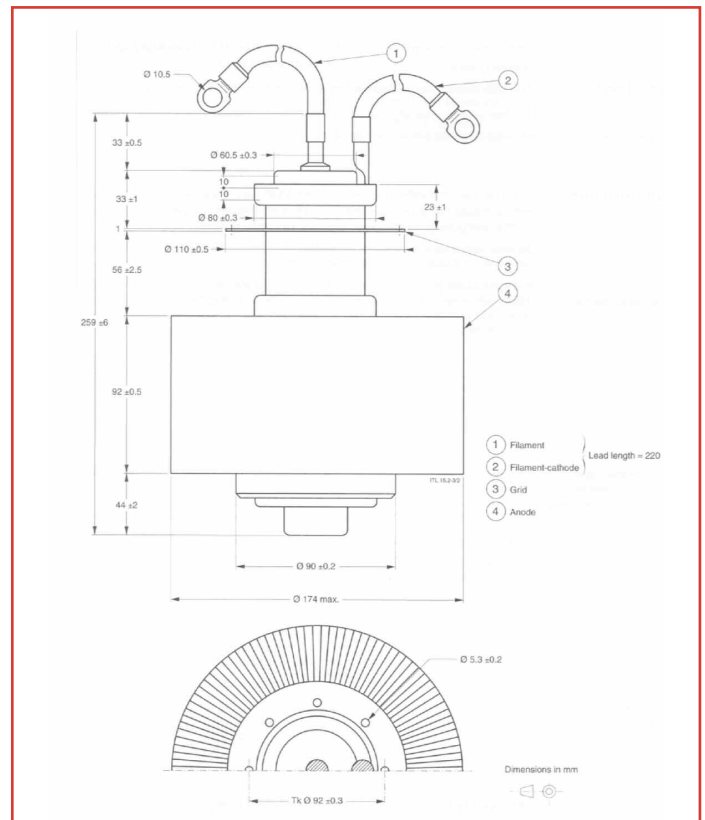
ITL 15-2

Industrial RF Heating triode

Constant current characteristics



Outline drawing (in mm)



Technical specifications

Cathode	thoriated tungsten
Filament voltage	7.2 V
Filament current	180 A
Max. heater surge current	500 A
Amplification factor	25
Capacitance	
• grid-anode	25 pF
• grid-cathode	60 pF
• cathode-anode	1.4 pF

Mechanical characteristics

Operating position	vertical
Weight	9 kg
Dimensions	174 x 259 mm

Cooling characteristics (air-cooling)

Typ. air temperature at tube inlet	25 °C
Min. air flow cooling (for $P_a=2.5$ kW)	9 m ³ /min
Corresponding air pressure drop	3.8 mbar
Max. T° at any point on the tube envelop	220 °C

Maximum ratings

Frequency	120	MHz
Anode voltage up to 30 MHz	13	kV
Anode voltage from 30 to 60 MHz	11	kV
Anode voltage from 60 to 90 MHz	9	kV
Anode voltage from 90 to 120 MHz	7	kV
Grid voltage	-1500	V
Anode current, CW	8	A
Grid current, at full load, CW	1.6	A
Grid current, at no load, CW	3	A
Peak cathode current CW	40	A
Anode dissipation ($T_{in} = 25^\circ\text{C}$)	17	kW
Anode dissipation ($T_{in} = 45^\circ\text{C}$)	15	kW
Grid dissipation up to 30 MHz	600	W
Grid dissipation from 30 to 60 MHz	520	W
Grid dissipation from 60 to 90 MHz	460	W
Grid dissipation from 90 to 120 MHz	400	W
Grid resistance (tube non conducting)	10	k Ω

Class C, RF oscillator for industrial applications

Frequency	30	60	MHz
Anode voltage	12	10	kV
Anode current	5	6	A
Grid current, on load	0.33	0.60	A
Anode input power	60	60	kW
Anode output power	45	45	kW
Anode dissipation	14.5	14.5	kW
Grid dissipation	75	170	W
Grid resistance	1970	1000	Ω
Feedback ratio	8.4	10.2	%
Oscillator efficiency	75	75	%

Operations at higher frequencies available on request.