

STP5085A

Air Cooled Triode
For Industrial RF Heating

- Output Power: 120 kW in CW mode
- Anode voltage: 14 kV
- Anode dissipation: 35 kW max.
- Frequency up to 100 MHz

Manufactured in India, in a world-class facility equipped with high quality machinery, materials and components sourced from reputed suppliers in America, Europe and Japan.

Fifty-two weeks warranty on pro rata basis against manufacturing defects irrespective of the number of hours of operation.



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Version 1.3, February 2018

STP5085A

The STP5085A is a RF power triode designed for dielectric heating applications. This tube uses a coaxial design and metal-ceramic technology. This triode may be operated in CW or pulse modes. For operation in pulse mode, the parameters depend on each equipment characteristics. Contact us for specific information. The STP5085A is an air cooled triode.

Electrical characteristics

Cathode Filament	.	.	.	.	thoriated tungsten
Filament voltage	.	.	.	.	10 V
Filament current	.	.	.	.	190 A
Surge current (maximum)	.	.	.	.	600 A
Capacitances:					
• Grid to Anode	.	.	.	.	46 pF
• Grid to Cathode	.	.	.	.	95 pF
• Cathode to Anode (see note 2)	.	.	.	.	2.6 pF
Amplification factor	.	.	.	.	22

Mechanical characteristics

Operating position	.	.	.	.	vertical
Weight	.	.	.	.	18 kg (39.6 lbs) approx.
Dimensions	.	.	.	.	see outline diagram

Maximum ratings

Frequency	.	.	.	.	30 MHz
Anode voltage:					
• Up to 15 MHz	.	.	.	.	14 kV
• From 15 to 30 MHz	.	.	.	.	10 kV
Control grid voltage	.	.	.	.	-1500 V
Control grid current:					
• At full load up to 15 MHz	.	.	.	.	2.2 A
• At off load up to 15 MHz	.	.	.	.	2.8 A
• At full load from 15 to 30 MHz	.	.	.	.	2.1 A
• At off load from 15 to 30 MHz	.	.	.	.	2.7 A
Cathode current.	.	.	.	.	15 A
Anode dissipation	.	.	.	.	35 kW
Grid dissipation:					
• Up to 15 MHz	.	.	.	.	1200 W
• From 15 to 30 MHz	.	.	.	.	1100 W
Grid resistance	.	.	.	.	8 K Ω

Cooling

Anode cooling	.	.	.	.	Forced Air
Typ. air temperature at tube inlet	.	.	.	.	25 °C
Min. air flow cooling (for Pa=30 kW)	.	.	.	.	18 m ³ /min
Corresponding air pressure drop	.	.	.	.	9 mbar
Maximum temperature at any point on the tube envelop	.	.	.	.	220 °C

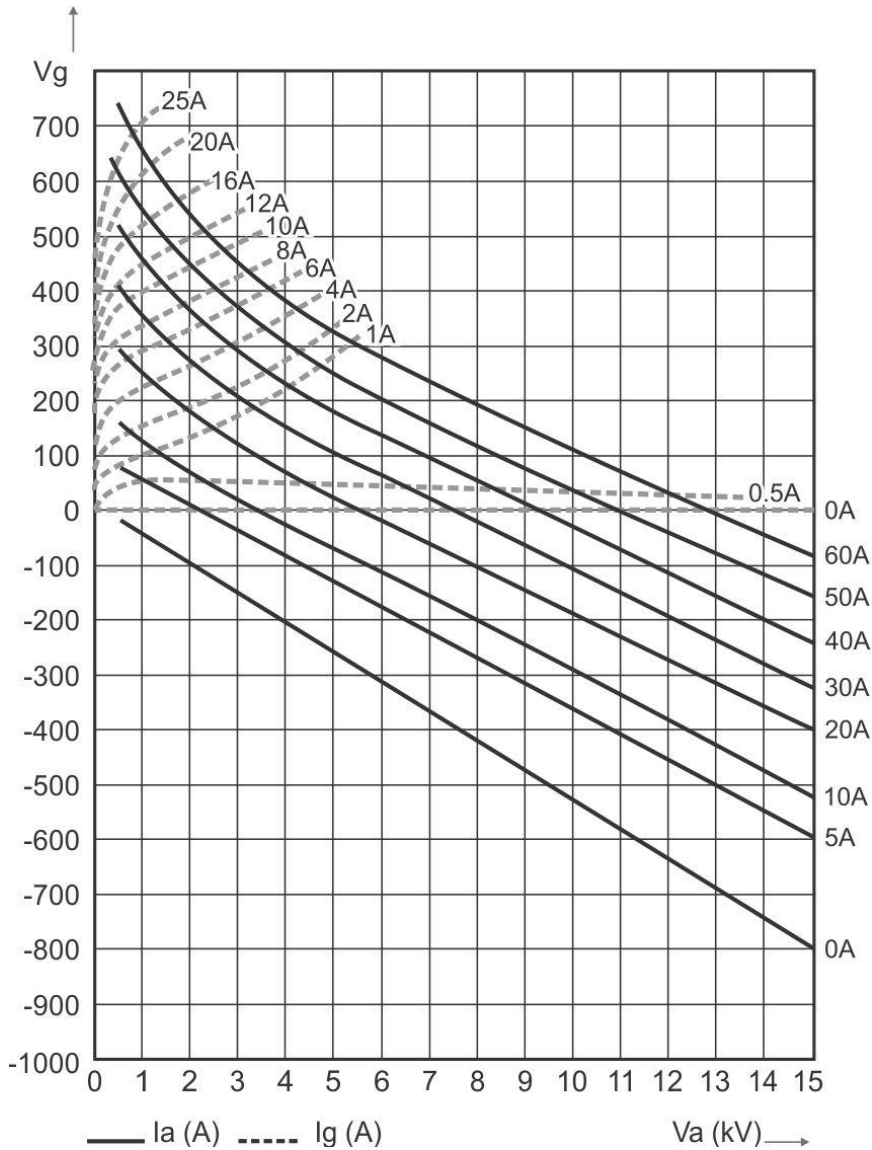


Class C RF oscillator for industrial applications

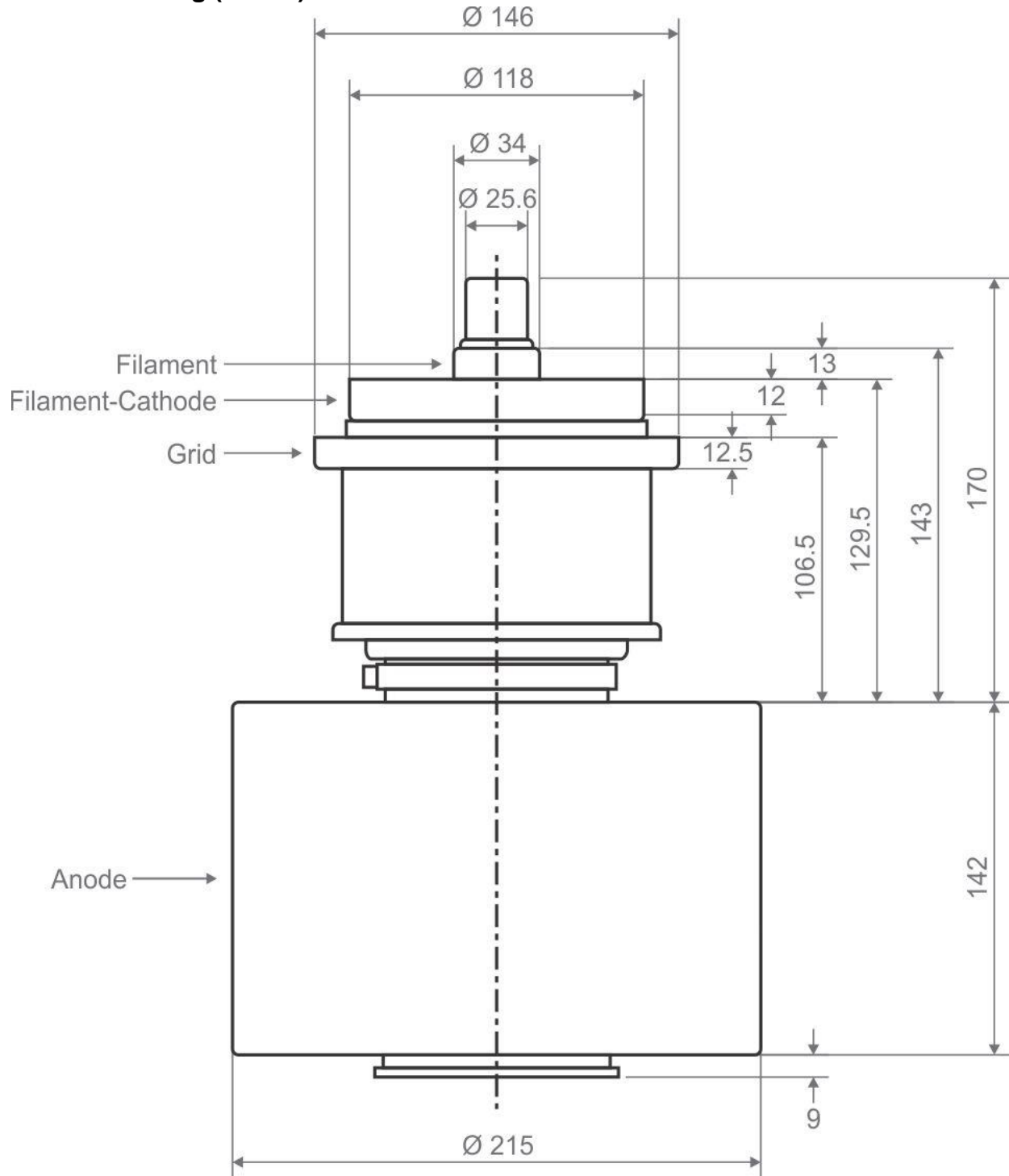
Frequency	.	.	.	.	.	.	<15	<15	MHz
Anode voltage	.	.	.	.	.	.	13	12	kV
Anode current	.	.	.	.	.	.	12.1	10.7	A
Anode input power	.	.	.	.	.	.	157	128	kW
Anode output power	.	.	.	.	.	.	120	100	kW
Anode dissipation	.	.	.	.	.	.	35	26	kW
Grid current, on load	.	.	.	.	.	.	1.75	1.75	A
Grid dissipation	.	.	.	.	.	.	750	730	W
Grid resistance	.	.	.	.	.	.	540	540	Ω
Feedback ratio	.	.	.	.	.	.	12.5	13.4	%
Oscillator efficiency	.	.	.	.	.	.	76	78	%

Operations at higher frequencies available upon request

Constant current characteristics



Outline drawing (in mm)



This document cannot be considered to be a contractual specification. The information given herein may be modified without notice due to product improvement or further development. Consult Pilani Electron Tubes and Devices before making use of this information for equipment design.