



ITL5-1 FORCED-AIR COOLED TRIODE FOR HF GENERATORS

- Output power: 13 kW in CW mode
- Anode voltage: 7.2 kV
- Anode dissipation: 6 kW
- Frequency up to 150 MHz

The ITL 5-1 is a RF power triode designed specifically for industrial applications, such as plastic welding.

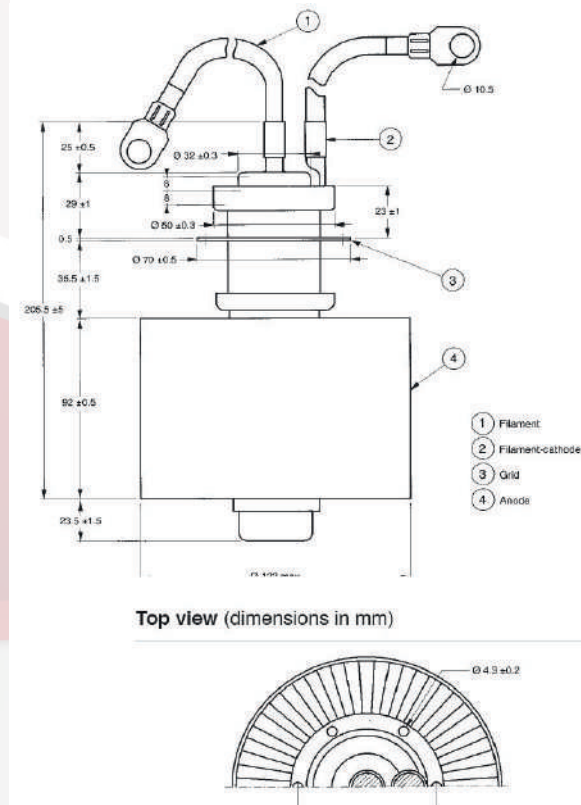
This triode uses a coaxial design and metal-ceramic technology.

It may be operated in CW or pulse modes.

For operation in pulse mode, the parameters depend on each equipment characteristics.

This product is designed, developed and manufactured at an ISO 9001 registered production site.

OUTLINE DRAWING (IN MM)



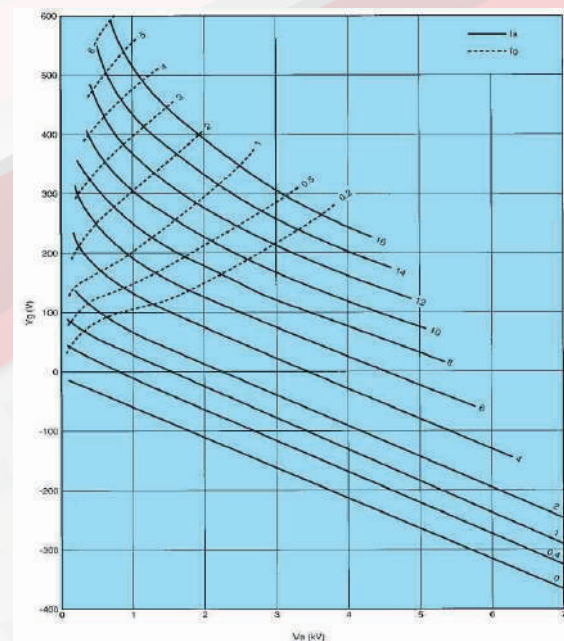
TECHNICAL SPECIFICATIONS

Cathode:	thoriated tungsten
Filament voltage:	6.3 V
Filament current:	66 A
Max. heater surge current:	250 A
Amplification factor:	20
Capacitance	
• grid-anode:	16 pF
• grid-cathode:	21 pF
• cathode-anode:	0.6 pF

CLASS C, RF OSCILLATOR

Frequency:	30	30 MHz
Anode voltage:	6.8	5.5 kV
Anode current:	2.5	2.3 A
Grid current, on load:	0.43	0.43 A
Anode input power:	17	12.7 kW
Anode output power:	12.9	9.5 kW
Anode dissipation:	3.9	3 kW
Grid dissipation:	142	127 W
Grid resistance:	1250	1050 Ω
Feedback ratio:	15	16 %
Oscillator efficiency:	75.8	74.3 %

CONSTANT CURRENT CHARACTERISTICS



MAXIMUM RATINGS

Frequency:	150 MHz
Anode voltage up to 85 MHz:	7.2 kV
Anode voltage from 85 to 150 MHz:	6 kV
Grid voltage:	-1000 V
Anode current, CW	2.5 A
Grid current, at full load, CW	0.55 A
Grid current, at no load, CW	0.75 A
Peak cathode current CW	15 A
Anode dissipation (Tin = 25°C):	6 kW
Anode dissipation (Tin = 45°C):	5 kW
Grid dissipation up to 85 MHz:	200 W
Grid dissipation from 85 to 150 MHz:	170 W
Grid resistance (tube non conducting):	20 kΩ

MECHANICAL CHARACTERISTICS

Operating position:	vertical
Weight:	2.9 kg
Dimensions:	123 x 206 mm

AIR-COOLING CHARACTERISTICS

Max. air temperature at tube inlet:	45 °C
Max. air temperature at tube outlet:	75 °C
Min. air flow cooling (for Pa=6 kW):	8 m³/min
Min. air pressure cooling (for Pa=6 kW):	5.8 mbar
Max. T° at any point on the tube envelop:	220 °C