

Amperex

AX7T85RB

RF Power Triode

The Amperex AX7T85RB is an external anode triode of ceramic to metal construction. Intended for use in RF industrial heating applications, the Amperex AX7T85RB is an improved version of the 7T85RB and replaces the 7T85RB and 7T85RA in all applications. It utilizes a copper radiator which offers improved thermal characteristics over its predecessors. The copper radiator permits the tube to operate much cooler in high load applications. Conservatively rated at 2.5kW to remain compatible with the 7T85RB, the device can comfortably dissipate up to 3.5 kW. This tube survives extremely well in hostile industrial environments.

GENERAL DATA

Electrical:

Filament-Thoriated Tungsten

Voltage	6.3±5%	V
Current	35	A
Amplification Factor	21	
Transconductance ($I_b @ 0.35 A_{dc}$)	5	mmhos
Direct interelectrode capacities:		
Grid-Anode	13	pF
Grid-Filament	15	pF
Anode-Filament	0.5	pF
Frequency of maximum ratings	110	MHz

Mechanical:

Overall dimensions:

Length	211	mm
Diameter	130	mm

Mounting position:

Vertical, Anode down or Up

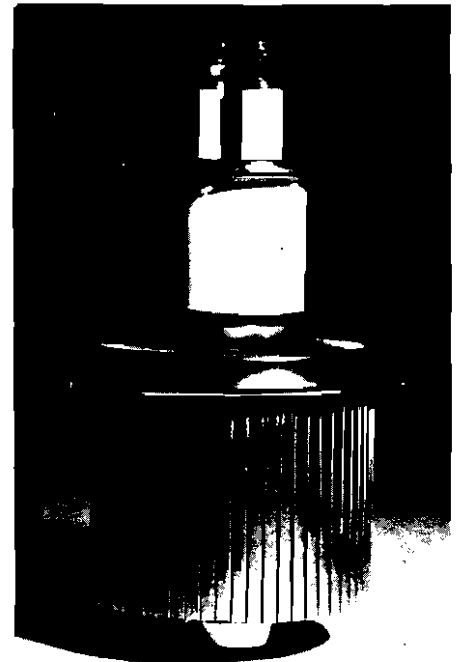
Cooling: Forced Air*

Radiator:

Min. Air Flow	3.3	m ³ /min.
Min. static pressure	17	mm of water
Maximum incoming air temp.	45	°C
Maximum radiator temp. (measured on anode core)	250	°C
Maximum temperature of ceramic-metal seal	250	°C

Weight 2.5 kg

*Air flow should be delivered by a blower through the radiator and onto each terminal before the application of any voltage.



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RADIO FREQUENCY AMPLIFIER & OSCILLATOR-CLASS C TELEGRAPHY

(Key-down condition per tube without amplitude modulation)

Operating Ratings:	Continuous Service	Intermittent Service	
DC plate voltage	8	8.5	kV
DC grid voltage	-1500	-1500	V
DC plate current	1	1.2	A
DC grid current	300	350	mA
Plate input	7.5	8.5	kW
Plate dissipation	2500	2500	W
Grid dissipation	130	150	W

Operation:	Continuous Service	Intermittent Service	
DC plate voltage	7.5	8	kV
Grid resistor (Approx.)	4.5	4.5	kohms
DC plate current	0.9	1.0	A
DC grid current	0.2	0.25	A
Power output (Approx.)	5.1	6.0	kW

FIGURE 1: CONSTANT CURRENT CHARACTERISTICS

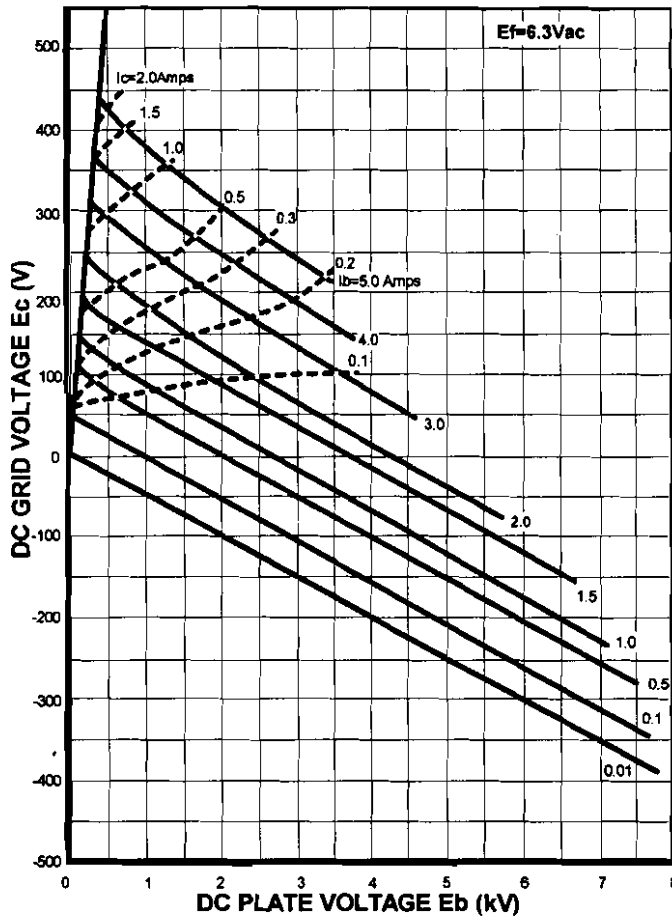
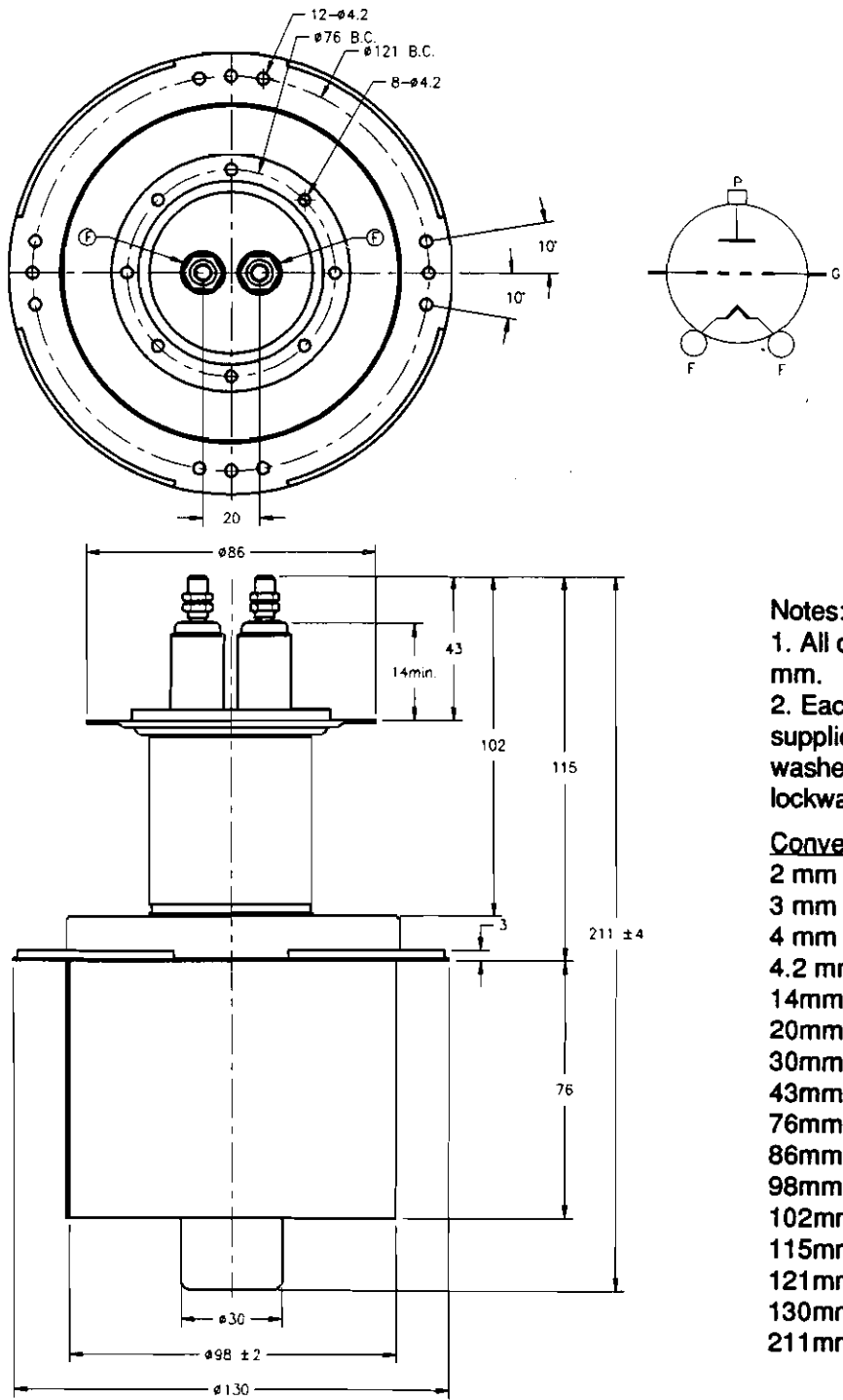


FIGURE 2: MECHANICAL OUTLINE



Notes:
 1. All dimensions in mm.
 2. Each terminal is supplied with 2 nuts, a washer and a lockwasher.

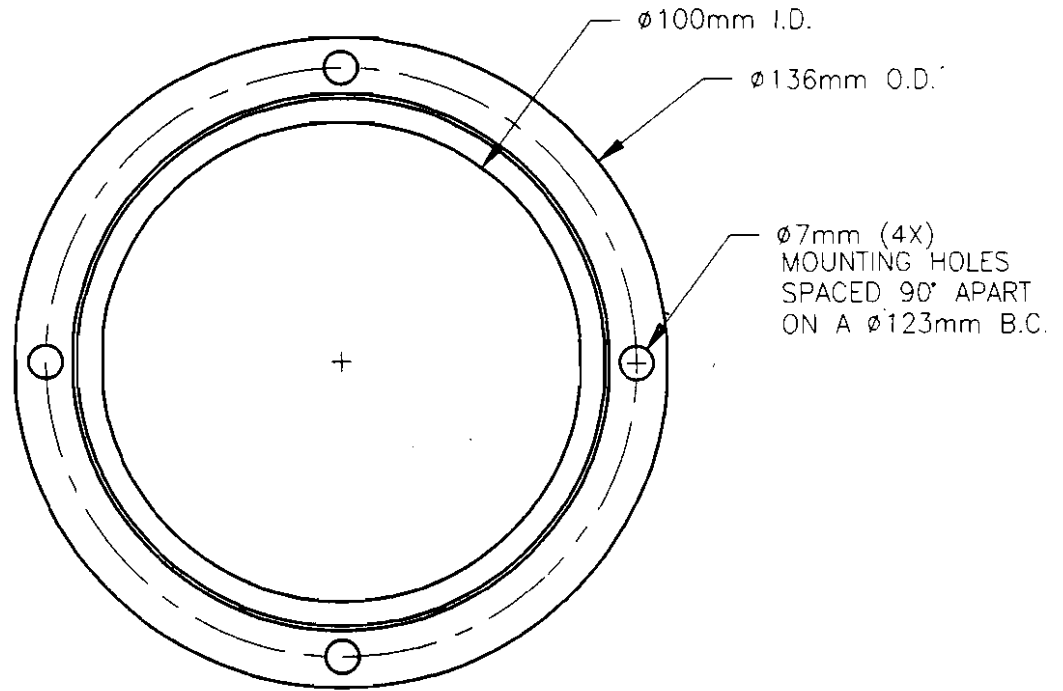
Conversion Chart

2 mm	.079"
3 mm	.118"
4 mm	.157"
4.2 mm	.165"
14mm	.551"
20mm	.787"
30mm	1.181"
43mm	1.693"
76mm	2.992"
86mm	3.386"
98mm	3.858"
102mm	4.016"
115mm	4.528"
121mm	4.764"
130mm	5.118"
211mm	8.307"

Accessories:
 Pedestal **Part Number**
 AX91111

**Amperex
AX91111**

Pedestal Assembly for AX7T85RB



CONVERSION CHART

136mm	5.354"
133mm	5.236"
123mm	4.843"
100mm	3.937"
7.0mm	0.276"

