

# RADIO MANUFACTURERS ASSOCIATION ENGINEERING DEPARTMENT

RMA DATA BUREAU  
90 West Street  
New York 6, N. Y.

sponsor:  
Amperex Electronic Corp.

Release No. 657

April 30, 1948

## BETA COUNTER TUBES

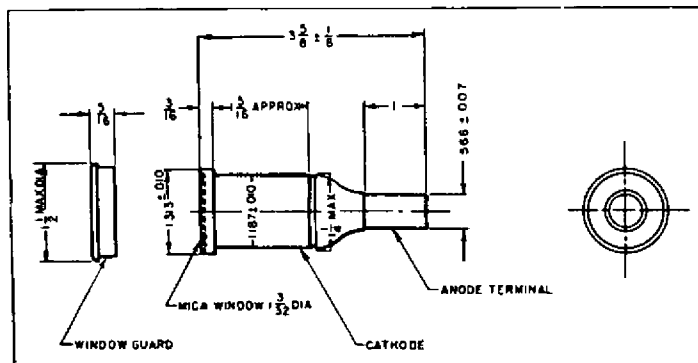
### 1B75, 1B76

#### 1B75

#### 1B76

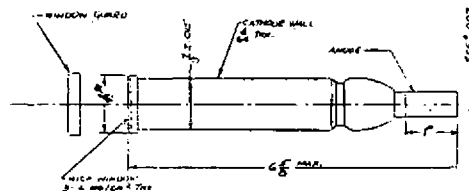
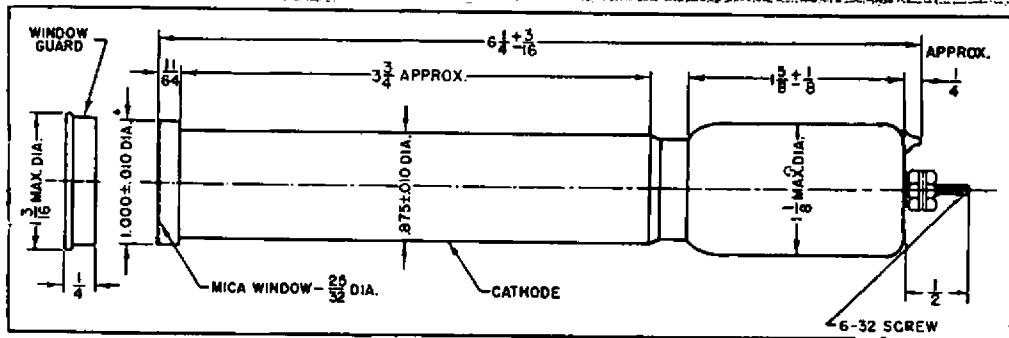
Filling .....	Argon + quenching admixture	Neon + quenching admixture
Operating Temperature Range .....	-70°C to +100°C	-70°C to +100°C
Operating Voltage .....	1200 volts D.C.	450 volts D.C.
Plateau .....	in excess of 300 volts	in excess of 100 volts
Slope of plateau .....	2% to 5% per 100 volts	5% per 100 volts
Capacity at terminals .....	1.0 mmf	1.0 mmf
Cosmic Ray Efficiency .....		greater than 80%
Dead time .....	200 microseconds	200 microseconds
Background-unshielded .....	50 counts per minute	50 counts per minute
Life expectancy in counts .....	unlimited by use	unlimited by use
Average Mica Window Thickness .....	.0005 in. = 3.5mg/cm <sup>2</sup> = 12.70 microns	.0005 in. = 3.5mg/cm <sup>2</sup> = 12.70 microns
Effective Diameter of Mica Window .....	1 3/32"	1 3/32"
Cathode Material .....	Stainless Steel	Stainless Steel
Effective Cathode Dimensions .....	1 1/2" long x 1 3/16" O.D. x 3/32" wall	1 1/2" long x 1 3/16" O.D. x 3/32" wall

Mica windows 3.5mg/cm<sup>2</sup> thick will pass all beta radiation of energy in excess of 43 KEV. when the source is in close proximity to the window.



March 26th, 1949

<u>Tube Type</u>	<u>Item</u>	<u>As Registered</u>	<u>As Proposed</u>
1B69	Plateau Slope of Plateau Dead Time	in excess of 300 Volts 2% to 5% per 100 volts 200 microseconds	in excess of 200 volts 5% per 100 volts max. approx. 70 microseconds
1B73	Slope of Plateau Dead Time	2% to 5% per 100 volts 200 microseconds	5% per 100 volts max. approx. 100 microseconds
1B75	Oper. Temp. range Slope of Plateau	- 70°C to + 100°C 2% to 5% per 100 volts	- 55°C to +75°C 10% per 100 volts max.
1B76	Oper. Temp. range Operating Voltage Plateau Slope of Plateau	- 70°C to + 100°C 450 Volts D.C. in excess of 100 volts 5% per 100 Volts	- 55°C to + 75°C 700 Volts D.C. in excess of 200 volts 10% per 100 volts max.
1B77	Oper. Temp. range Slope of Plateau Dead time	- 70°C to + 100°C 2% to 5% per 100 volts 200 microseconds	- 55°C to + 75°C 10% per 100 volts max. approx. 320 microseconds
1B78	Oper. Temp Range Slope of Plateau Dead Time Outline drawing	- 70°C to + 100°C 5% per 100 volts 200 microseconds see attached sheet	- 55°C to + 75°C 10% per 100 volts max. approx 100 microseconds
1B80	Oper. Temp. range Operating voltage Plateau Slope of Plateau Dead time Outline drawing	- 70°C to + 100°C 450 volts D.C. in excess of 100 volts 5% per 100 volts 200 microseconds see attached sheet	- 55°C to + 75°C 700 Volts D.C. in excess of 200 volts 10% per 100 volts max. approx. 180 microseconds
1B81	Oper. Temp. Range Slope of Plateau	- 70°C to + 100°C 2% to 5% per 100 Volts	- 55°C to + 75°C 10% per 100 volts max.



(NEW)

(1B78, 1B80)