



**RADIO MANUFACTURERS ASSOCIATION  
ENGINEERING DEPARTMENT**

RMA TYPES

Release No. 452

3K23  
3K21  
3K22  
3K30

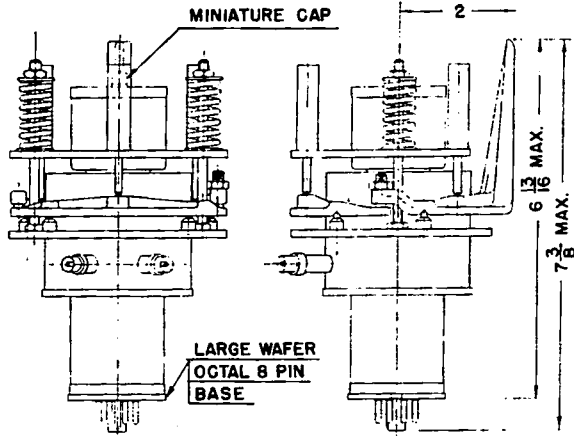
November 10, 1945

sponsored by:  
Sperry Gyroscope Co., Inc.

Type Designation		3K23	3K21	3K22	3K30
Reservation No.		5213	5157	5158	5217
Type Tube		Reflex	2-cavity	2-ca.	2-cavity
<u>Maximum Ratings</u>					
Acceleration voltage	Volts d-c	1000	3000	3000	3000
Beam current	Ma	90	150	150	150
Beam power input	Watts	80	450	450	450
Control electrode voltage	Volts d-c	±20 to -200V.	0 to -200	0 to -200	0 to -200
Control electrode current	Ma	4.0	3.0	3.0	3.0
Reflector voltage (referred to cathode)	Volts	-1500	---	---	---
Reflector current, normally zero	Ma	2	---	---	---
Mechanical tuning range	Mc	950 to 1150	2300 to 2725	3330 to 4000	2700 to 3330
Electronic tuning range (Depends on mode)	Mc	a) 4 b) 10	10	10	10
Temperature stability (-10°C to +40°C)	Mc	1	---	---	---
R.F. Power Output maximum		1 - 5	20-40	20-40	20-40
Tube dimensions		See outline drawings.			

a) high power mode  
b) low power mode

see updated drawing, next page



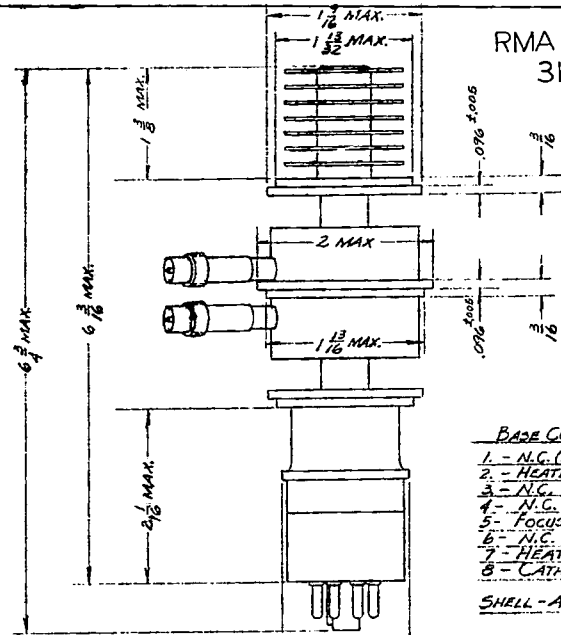
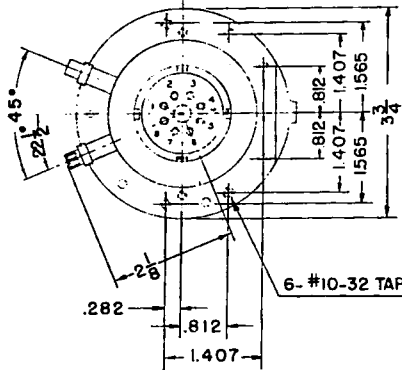
**BASE CONNECTIONS**

1. NO CONNECTION (NC)
2. HEATER
3. NC
4. NC
5. FOCUSING ELECTRODE
6. NC
7. HEATER
8. CATHODE

**CAP REFLECTOR**

**R.M.A. TYPE  
3K23**

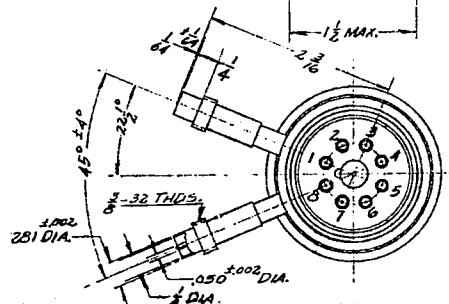
ALL DIMENSIONS  
NOMINAL UNLESS  
OTHERWISE NOTED.



**BASE CONNECTIONS**

- 1 - N.C. (NOT CONNECTED)
- 2 - HEATER
- 3 - N.C.
- 4 - N.C.
- 5 - FOCUSING ELECTRODE
- 6 - N.C.
- 7 - HEATER
- 8 - CATHODE

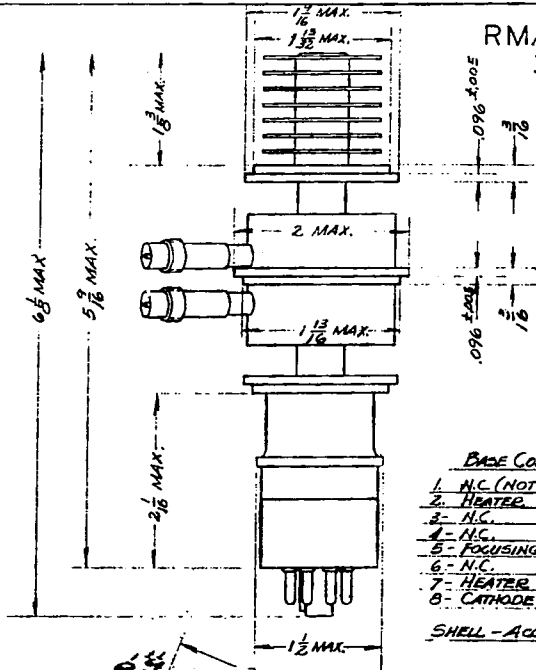
**SHELL - ACCELERATOR**



ALL DIMENSIONS NOMINAL  
UNLESS OTHERWISE NOTED

**RMA TYPE  
3K22**

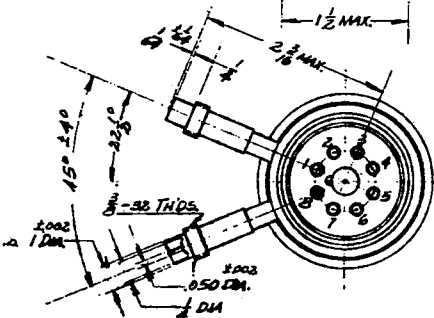
**R.M.A. TYPE  
3K30**



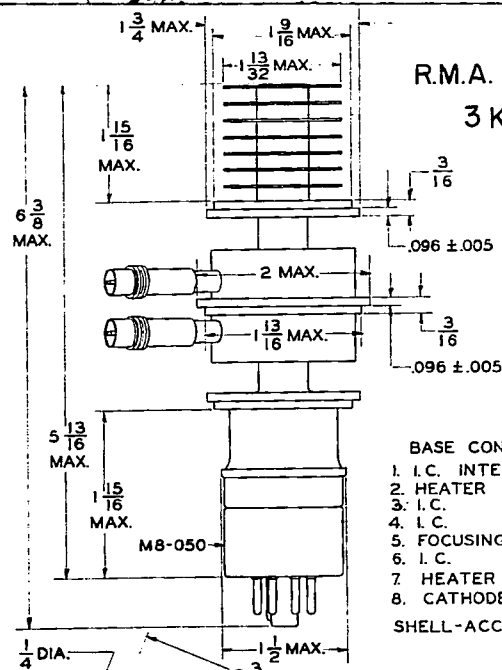
**BASE CONNECTIONS**

1. N.C. (NOT CONNECTED)
2. HEATER
3. N.C.
4. N.C.
5. FOCUSING ELECTRODE
6. N.C.
7. HEATER
8. CATHODE

**SHELL - ACCELERATOR**



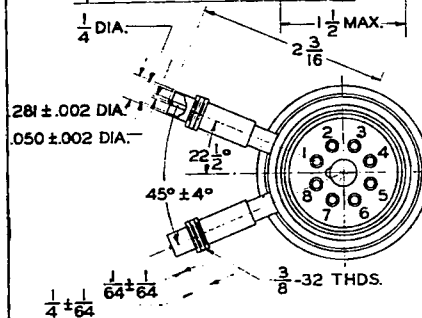
ALL DIMENSIONS NOMINAL  
UNLESS OTHERWISE NOTED



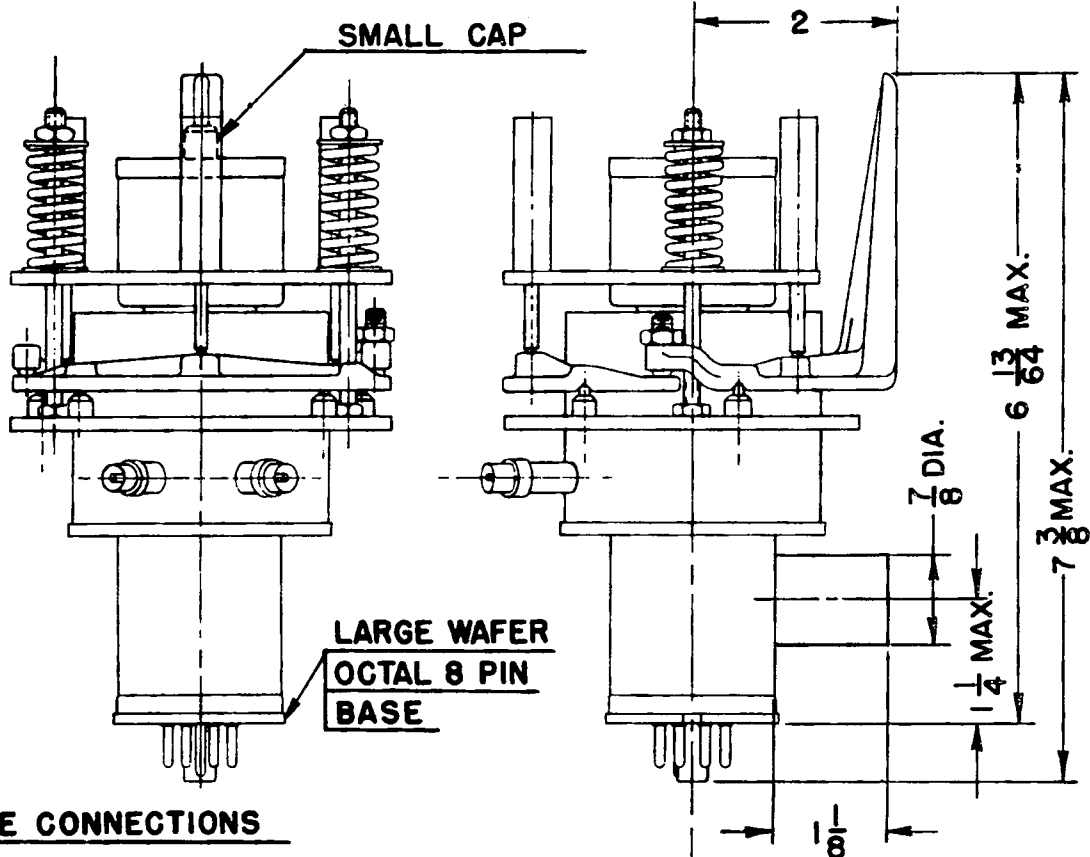
**BASE CONNECTIONS**

1. I.C. INTERNAL CONN.
2. HEATER
3. I.C.
4. I.C.
5. FOCUSING ELECTRODE
6. I.C.
7. HEATER
8. CATHODE

**SHELL - ACCELERATOR**



ALL DIMENSIONS  
NOMINAL UNLESS  
OTHERWISE NOTED.



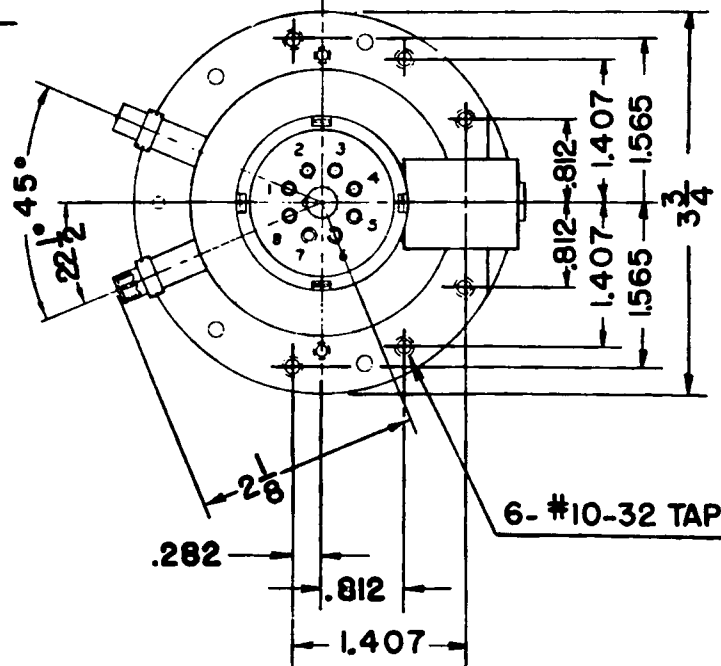
**BASE CONNECTIONS**

- 1. INTERNAL CONNECTION (I.C.)
- 2. HEATER
- 3. I.C.
- 4. I.C.
- 5. CONTROL ELECTRODE
- 6. I.C.
- 7. HEATER
- 8. CATHODE

CAP - REFLECTOR

SHELL - RESONATOR

**R.M.A. TYPE  
3K23**



ALL DIMENSIONS IN INCHES  
NOMINAL UNLESS OTHERWISE NOTED.