JETEC TYPE DESIGNATION REGISTRATION FORM

DUAL TR TUBE

Manufacturer's Designation: BL-604H
JETEC Designation: 6647
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

March 18, 1957

GENERAL CHARACTERISTICS

The 6647 is a dual broad-band gas switching tube designed to operate with suitable short-slot hybrid junctions to provide a balanced duplexer using RG-52/U size waveguide. Two heaters and a thermostat permanently attached to the tube allow operation over a wide range of ambient temperature. It is an integral cavity type with fixed tuned gaps. Its operational band is from 8490 to 9578 megacycles.

ELECTRICAL DATA TYPICAL VALUES

Operational Band	
VSWR 1.4 maximum	8490 to 9578Mc/sec.
VSWR 1.2 maximum	8565 to 9487Mc/sec.
Ignitor Ignition Time (max.)	5 sec.
Ignitor Voltage Drop at Ii=100μAdc (each electrode)	200-375 volts
Spike Leakage Energy (max.) F= 9000Mc; po=40kw; tp1=1.0μsec. tp2=0.5μsec; prr=1000 pps; Ii=100μAdc on each electrode	0.1 ergs
Flat Leakage Power (max.) (see Spike Leakage for test conditions)	20 mw
Duplexer Loss (max.) Ii=100μAdc on each electrode	
from 8490 to 9578Mc.	1.2 db
from 8565 to 9487Mc.	1.0 db
Isolation (min.)	
from 8490 to 9578Mc.	14 db
from 8565 to 9487Mc.	16 db
at 9000Mc.	18 db
Recovery Time (max.) at 100kw peak 3 db down	1.5μs
High Level VSWR (max.) F= 9000Mc; po=40kw; tp=1.0μsec; prr=1000pps; Ii=100μAdc	1.2
Heater Voltage (380-1000 cps)	115 Vac
Heater Wattage	25 W
Thermostat Cut-In Temperature (min.)	4°C
Thermostat Cut-Out Temperature (max.)	50°C

from JETEC release #1919, May 6, 1957

MECHANICAL DATA-GENERAL

Mounting Position	Any
Number of Ignitors	Two
Weight, approximately	10 ounces

ABSOLUTE MAXIMUM RATINGS

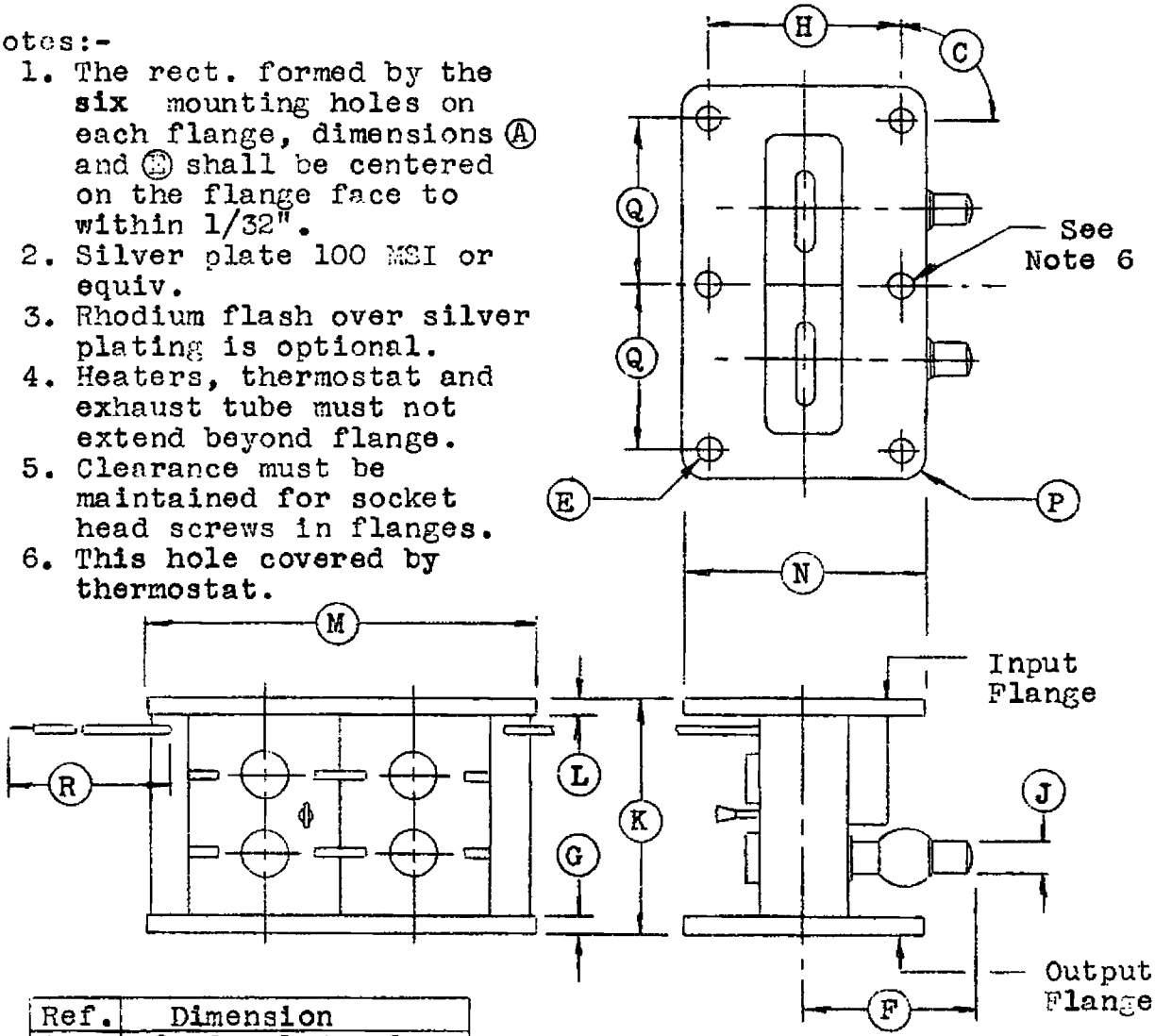
Transmitter Peak Power	100 kw
Transmitter Average Power	100 W
Ignitor Current (each electrode)	200 μAdc
Thermostat Contact Current	2 Aac

OUTLINE DRAWINGS

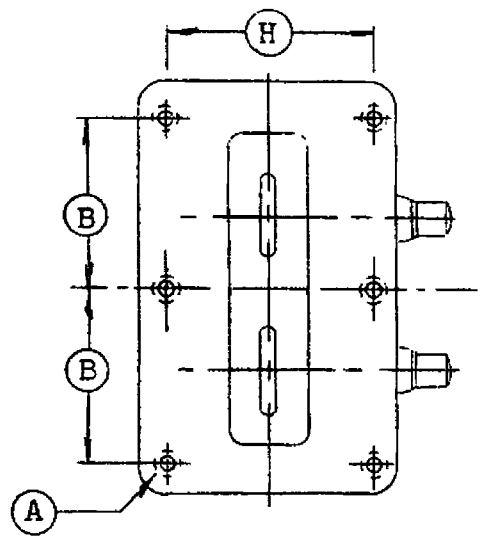
Outline as per attached drawing dated 2-24-57.
Mating Flange as per attached drawing dated, 11-10-54.

Notes:-

1. The rect. formed by the **six** mounting holes on each flange, dimensions (A) and (B) shall be centered on the flange face to within 1/32".
2. Silver plate 100 MSI or equiv.
3. Rhodium flash over silver plating is optional.
4. Heaters, thermostat and exhaust tube must not extend beyond flange.
5. Clearance must be maintained for socket head screws in flanges.
6. This hole covered by thermostat.



Ref.	Dimension
A	⌀8-32NC-1 **6** Holes
B*	**1.085 ±.003**
C	90°±5°
D*	1.280 ±.004
E	⌀18(.1695) **6** Holes
F*	1 3/8 Max.
G**	0.083 Min.
H*	1.280 ±.004
J**	0.250 Dia.
K	1.555 ±.010
L**	0.083 Min.
M**	2.575 ±.015
N**	1.625 ±.015
P**	1/8 Rad.
Q*	**1.085 ±.003**
R*	18.00 Min.
	Both Leads



	SPECIFICATION SHEET	BOMAC LABORATORIES INC. SALEM ROAD BEVERLY, MASSACHUSETTS
	Outline 6647/BL-604H	2-24-57 clr

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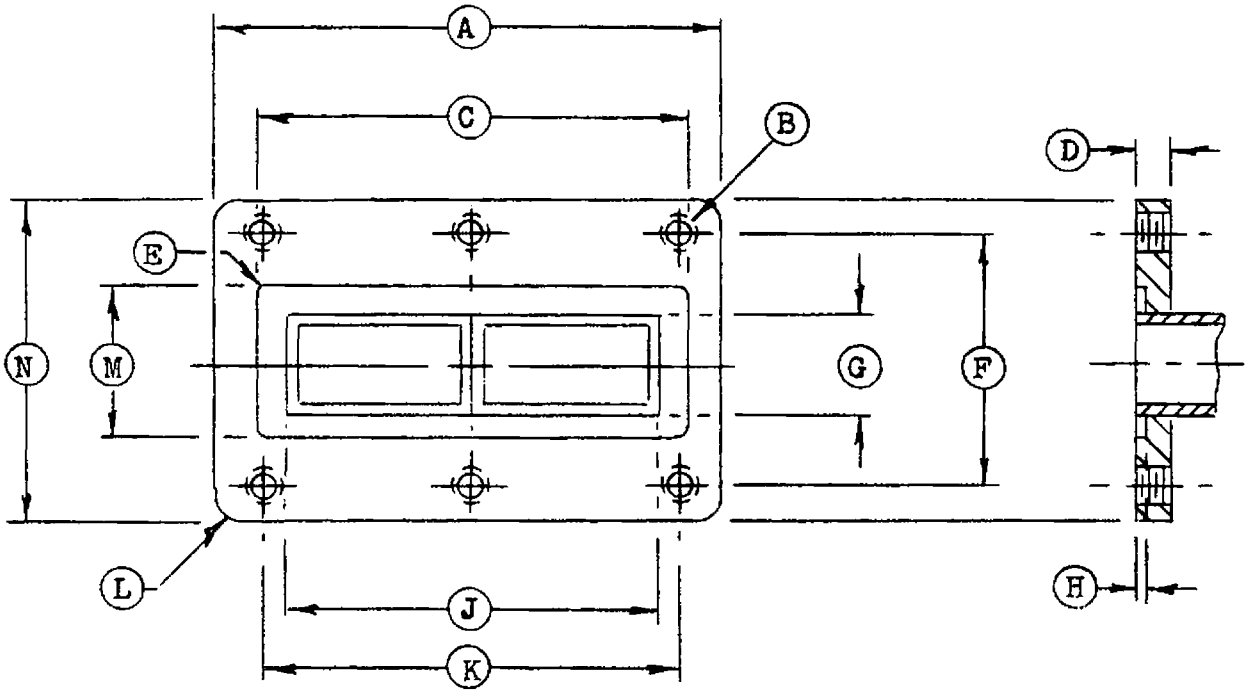

Ref.	Dimension
A	2.575 ±.015
B	#8-32NC Tap
	6 Holes
C	2.203 +.005 -.000
D	0.220 ±.010
E	3/64 Radius
F	1.280 ±.004
G	0.500 ±.003
H	0.070 ±.001
J	1.950 ±.004
K	2.170 ±.006
L	0.120 Rad. Approx.
M	0.753 +.005 -.000
N	1.625 ±.015

This outline used for following tubes:-

6796, BL-344, 6648/BL-615. BL-625
BL-355 6647/ BL-604H

	SPECIFICATION SHEET	BOMAC LABORATORIES INC. SALEM ROAD BEVERLY. MASSACHUSETTS
06-2E-1,10,20,08	Mating Flange	11-10-56 clr

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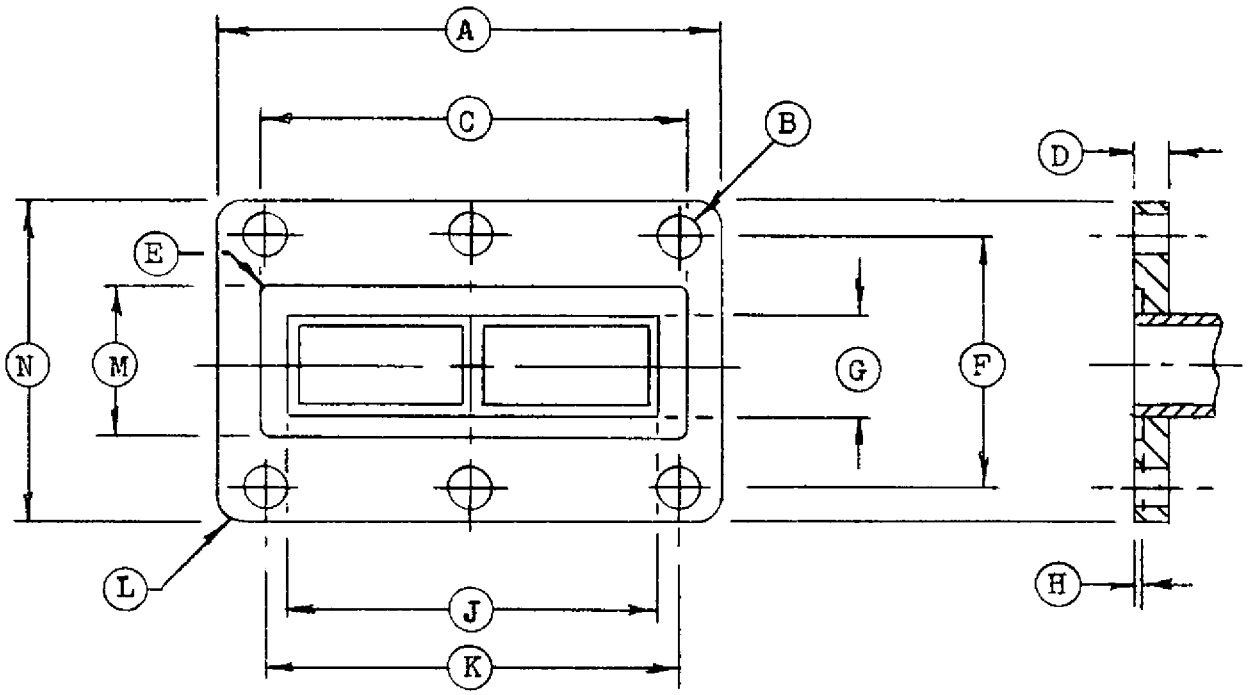

Ref.	Dimension
A	2.575 ±.015
B	#18(.1695) Dr.
	6 Holes
C	2.203 +.005 -.000
D	0.220 ±.010
E	3/64 Rad.
F	1.280 ±.004
G	0.500 ±.003
H	0.070 ±.001
J	1.950 ±.004
K	2.170 ±.006
L	0.120 Rad. Approx.
M	0.753 +.005 -.000
N	1.625 ±.015

This outline used for following tubes:-

BL-78, BL-307, 6599/BL-322, BL-331, BL-655

6796, 6601/BL-327, 6642/BL-600, BL-335,

BL-341, BL-339H,BL-649, BL-651H, BL-686H

6647/ BL 604H

	SPECIFICATION SHEET	BOMAC LABORATORIES INC. SALEM ROAD BEVERLY, MASSACHUSETTS
GS-2E-1.10-0.10	Mating Flange	11-10-54 clr

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