

JETEC TYPE DESIGNATION REGISTRATION FORM

DUAL TR TUBE

Manufacturer's Designation: BL-86
JETEC Designation: 6641
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

May 2, 1957

GENERAL CHARACTERISTICS

The 6641 is a dual broad-band TR tube designed to operate with suitable short-slot hybrid junctions to provide a balanced duplexer using RG 49/U size waveguide. It is an integral cavity type with fixed tuned gaps. Its operational band is from 5150 to 5410 megacycles.

ELECTRICAL DATA - TYPICAL VALUES

Operational Band

VSWR 1.3 maximum

5150 to 5410 Mc/sec.

VSWR 1.2 maximum

5220 to 5340 Mc/sec.

Ignitor Ignition Time (max.) (each electrode)

5 sec.

Ignitor Voltage Drop at $I_i=100 \mu\text{A}$ dc
(each electrode)

200 to 400 volts

Spike Leakage Energy (max.)

0.1 ergs

$F=5280 \text{ Mc}$; $p_o=70 \text{ kw}$; $t_{p1}=1.0 \mu\text{s}$;

$t_{p2}=0.5 \mu\text{s}$; $p_{rr}=1000 \text{ pps}$;

$I_i=100 \mu\text{A}$ dc on each electrode

Flat Leakage Power (max.)

10 mw

(See spike leakage for test conditions)

Duplexer Loss (max.) $I_i=100 \mu\text{A}$ dc (each electrode)

5150 to 5410 Mc.

1.0 db

5220 to 5340 Mc.

0.8 db

Recovery Time (max.) at 625 kw peak 3 db down

12 μs

High Level VSWR (max.)

1.2

$F=5280 \text{ Mc}$; $p_o=300 \text{ kw}$; $t_p=1.0 \mu\text{s}$;

$p_{rr}=1000 \text{ pps}$; $I_i=100 \mu\text{A}$ dc on each electrode

MECHANICAL DATA - GENERAL

Mounting Position

Any

Pressurization

60 psia (max.)

Number of Electrodes

Two

Weight, approximately

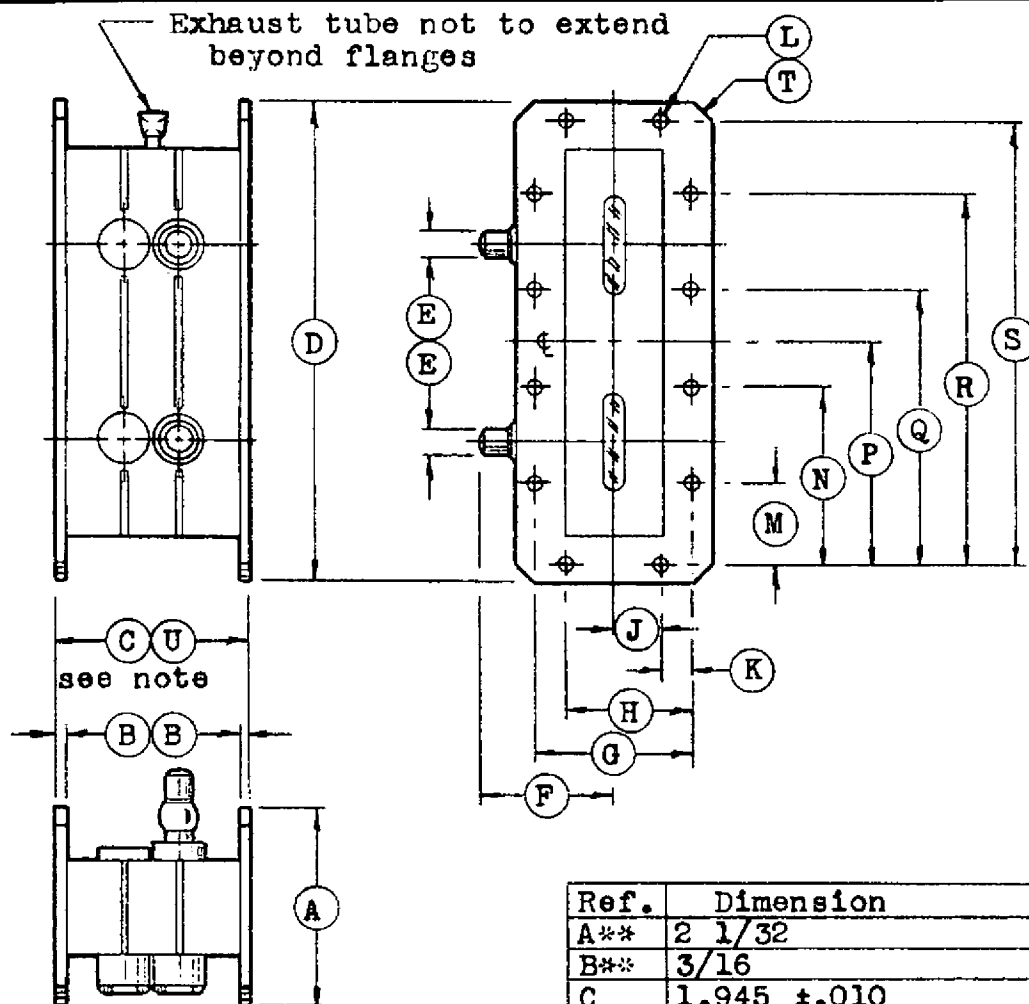
1.4 lbs

ABSOLUTE MAXIMUM RATINGS

Transmitter Peak Power	1000 kw
Transmitter Average Power	1000 W
Ignitor Current (each electrode)	200 μ Adc

OUTLINE DRAWINGS

Outline per attached drawing dated 4-4-57
Mating Flange per attached drawing dated 2-1-55



Note:-

Dimension C applies
to 6640/BL-60 only.

Dimension U applies
to 6641/BL-86 and
BL-644 only.

Ref.	Dimension
A**	2 1/32
B**	3/16
C	1.945 ±.010
D**	5 1/32
E**	0.250 Dia. Nom.
F*	1 13/16 Max.
G*	1.658 ±.004
H*	1.329 ±.004
J*	0.500 ±.004
K*	0.329 ±.004
L	#10-32NF 12 Holes Ea. Flg.
M*	0.829 ±.004
N*	1.829 ±.004
P*	2.329 ±.004
Q*	2.829 ±.004
R*	3.829 ±.004
S*	4.658 ±.004
T**	3/16 x 45° Chamfer
U	2.345 ±.015

SPECIFICATION SHEET

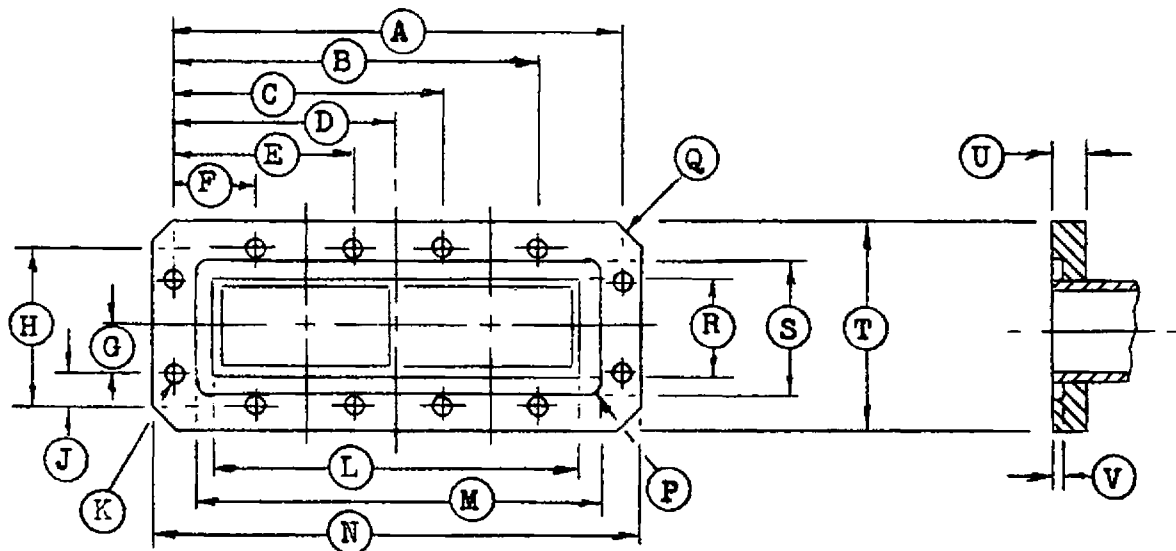
Outline

6640/BL-60, 6641/BL-86, BL-644

BOMAC LABORATORIES INC.
SALEM ROAD
BEVERLY, MASSACHUSETTS

4-4-57

clr



Ref.	Dimension	Ref.	Dimension
A	4.658 $\pm$.002	L	4.000 $\pm$.005
B	3.829 $\pm$.002	M	4.375 $\pm$.005
C	2.829 $\pm$.002	N	5 1/32
D	2.329 $\pm$.003	P	3/32 Rad.
E	1.829 $\pm$.002	Q	3/16 x 45 Chamfer
F	0.829 $\pm$.002	R	1.000 $\pm$.005
G	0.500 $\pm$.003	S	1.375 $\pm$.005
H	1.658 $\pm$.002	T	2 1/32
J	0.329 $\pm$.003	U	0.350 Min.
K	13/64 (.203) Dr.	V	0.110 $\pm$.002
	12 Holes		

Note:- Outline used for following tubes
 6640/BL-60, 6641/BL-86, BL-336
 BL-352, 6905/BL-613, BL-644

GS-2E-1.10.20.01

	SPECIFICATION SHEET	BOMAC LABORATORIES INC. SALEM ROAD BEVERLY, MASSACHUSETTS
	Mating Flange See Note	
		2-1-55 clr