

JETEC TYPE DESIGNATION REGISTRATION FORM

SHUTTER AND TR TUBES

Manufacturer's Designation: BL-316
JETEC Designation: 6595
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

December 14, 1956

GENERAL CHARACTERISTICS

The 6595 is a combined tunable TR tube and shutter for use in X-Band. The shutter mechanism, when closed, insures protection for the receiver crystal from nearby transmitters when the radar set is not in use. When the shutter is open, the TR tube functions normally and provides decoupling of the receiver from a common transmitting and receiving antenna during a period of transmission. It is an integral cavity type. Its tuning range is from 8490 to 9600 megacycles per second.

ELECTRICAL DATA - TYPICAL VALUES

TR Tube (with shutter open)

Load Q (max.)	350
Tuning Range	8490 to 9600 Mc/s.
Ignitor Ignition Time (max.)	5 sec.
Ignitor Voltage Drop at $I_i = 100 \text{ uAdc.}$	200 to 400 Vdc.
Peak Leakage Power (max.)	30 mw.
$F = 9375$; $p_o = 10 \text{ kw.}$	
$t_p = 0.5 \text{ us}$; $p_{rr} = 1000 \text{ pps}$;	
$I_i = 100 \text{ uAdc.}$	
Insertion Loss (max.) at 9375 Mc and $I_i = 0$	1.5 db.
Ignitor Interaction (max.) at $I_i = 100 \text{ uAdc.}$	0.2 db.
Recovery Time (max.) at 10 kw peak, 3 db down	4.0 us.

Shutter Tube

Attenuation (min.) (shutters closed) 8490 to 9600 Mc/s.	40 db.
Shutter Circuit Voltage	3 V (ac or dc)
Shutter Circuit Pull-In Current (min.)	500 mAdc.
Shutter Circuit Pull-In Current (min.)	460 mAac.
Shutter Circuit Holding Current (min.)	135 mAdc.
Shutter Circuit Holding Current (min.)	460 mAac.

MECHANICAL DATA - GENERAL

Mounting Position	Any
Weight, approximately	1/4 lb.

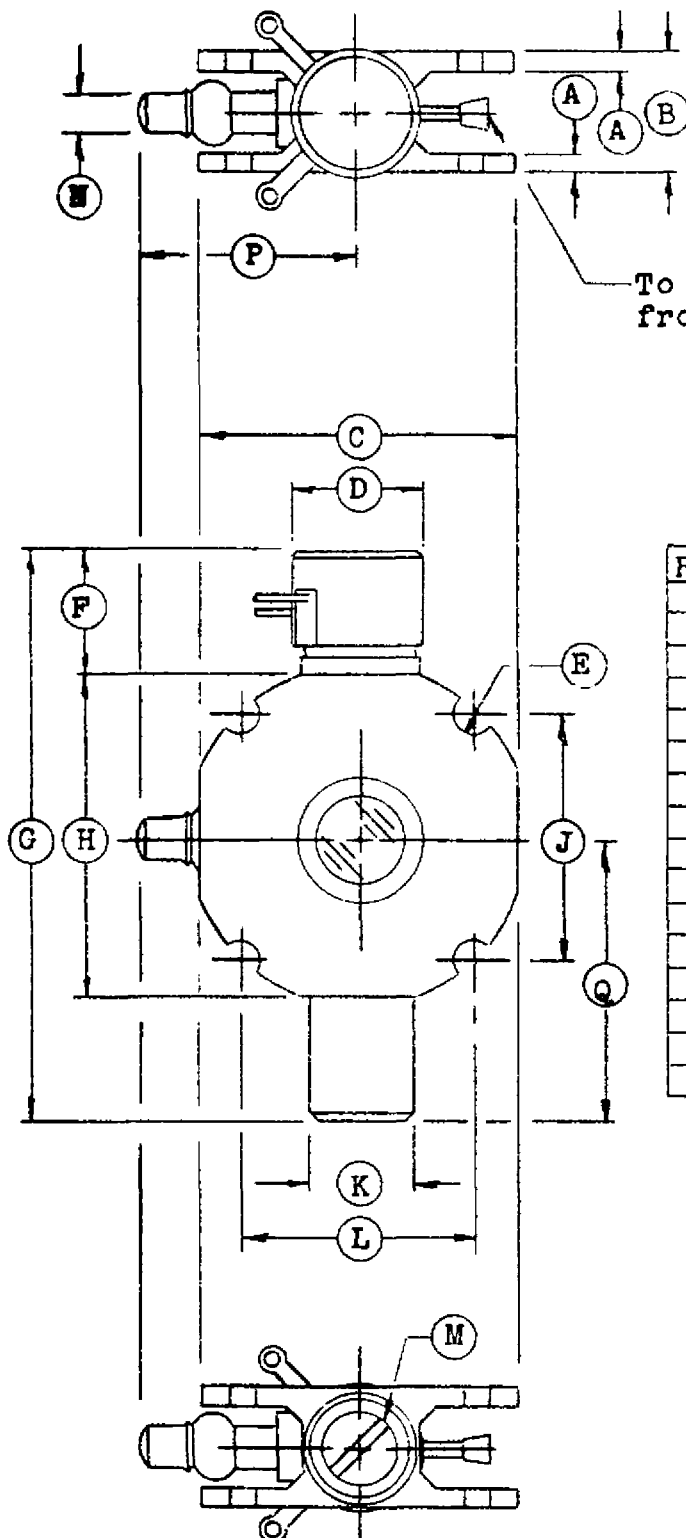
ABSOLUTE MAXIMUM RATINGS

Transmitter Peak Power (TR Tube) Note 1	100 kw.
Transmitter Average Power	100 W
Ignitor Current	200 uAdc.
Shutter Holding Current	600 mAdc.

OUTLINE DRAWING

As per attached drawing dated 7-6-56

Note 1: The shutter is not intended for applications involving switching of peak power greater than one kilowatt. Therefore the rating applies only when the shutter is either open or closed.



To be recessed 1/16
from edge of flange min.

Ref.	Dimension
A**	0.087±.015
B**	0.612
C*	1.625±.015
D*	0.690±.015
E	0.090 Rad.
	4 Slots
F	3/4 Max.
G*	3.000 Max.
H**	1.625±.015
J*	1.280
K*	Ø.535/Max.
L*	1.220
M**	3/64 x 1/16 Slot
N**	0.250 Dia. Nom.
P*	1 3/8 Max.
Q*	1 7/16 Max.

This outline is used for
the following tubes:-

6565/BL-313

6595/BL-316

BL-347

SPECIFICATION SHEET

Outline See above for usage

BOMAC LABORATORIES INC.
SALEM ROAD
BEVERLY, MASSACHUSETTS

7- 6-56

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