



ELECTRON TUBE DEPARTMENT ■ COMPONENTS DIVISION
INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION, CLIFTON, NEW JERSEY

**X-354
TRAVELING
WAVE TUBE**

T E N T A T I V E

DESCRIPTION:

THE X-354 IS A SUPER-HIGH-FREQUENCY, MEDIUM-POWER TRAVELING WAVE AMPLIFIER TUBE EMPLOYING A HELICAL WAVE PROPAGATING STRUCTURE. THE TUBE IS DESIGNED FOR USE AS A CONTINUOUS WAVE AMPLIFIER IN THE FREQUENCY RANGE OF 8 TO 12 KILOMEGACYCLES PER SECOND. IT IS OF ALL-METAL SHELL CONSTRUCTION, AND TYPE TNC FEMALE COAXIAL LINE R-F CONNECTORS ARE PROVIDED AS AN INTEGRAL PART OF THE STRUCTURE. THE TUBE IS SELF-ALIGNING IN THE PERMANENT MAGNET WHICH PROVIDES THE MAGNETIC FIELD REQUIRED TO DEFINE THE PATH OF THE ELECTRON BEAM.

ELECTRICAL DATA:

HEATER, FOR OXIDE-COATED, UNIPOTENTIAL CATHODE		
VOLTAGE	6.3	VOLTS
CURRENT	2.0	AMPERES
FREQUENCY	8 TO 12	KMC
GAIN (SMALL SIGNAL) (NOTE 1)	33	DB
GAIN (AT RATED POWER OUT) (NOTE 1)	25	DB
POWER OUTPUT (NOTE 1)	5	WATTS

MECHANICAL DATA:

MOUNT	SPECIAL
MOUNTING POSITION	ANY
BASE	MOULDED RUBBER
	FLEXIBLE LEADS
OVERALL TUBE LENGTH	12 INCHES
R-F CIRCUIT CONNECTORS	TNC FEMALE
TYPE OF COOLING	AIR OR WATER COOLED
	COLLECTOR

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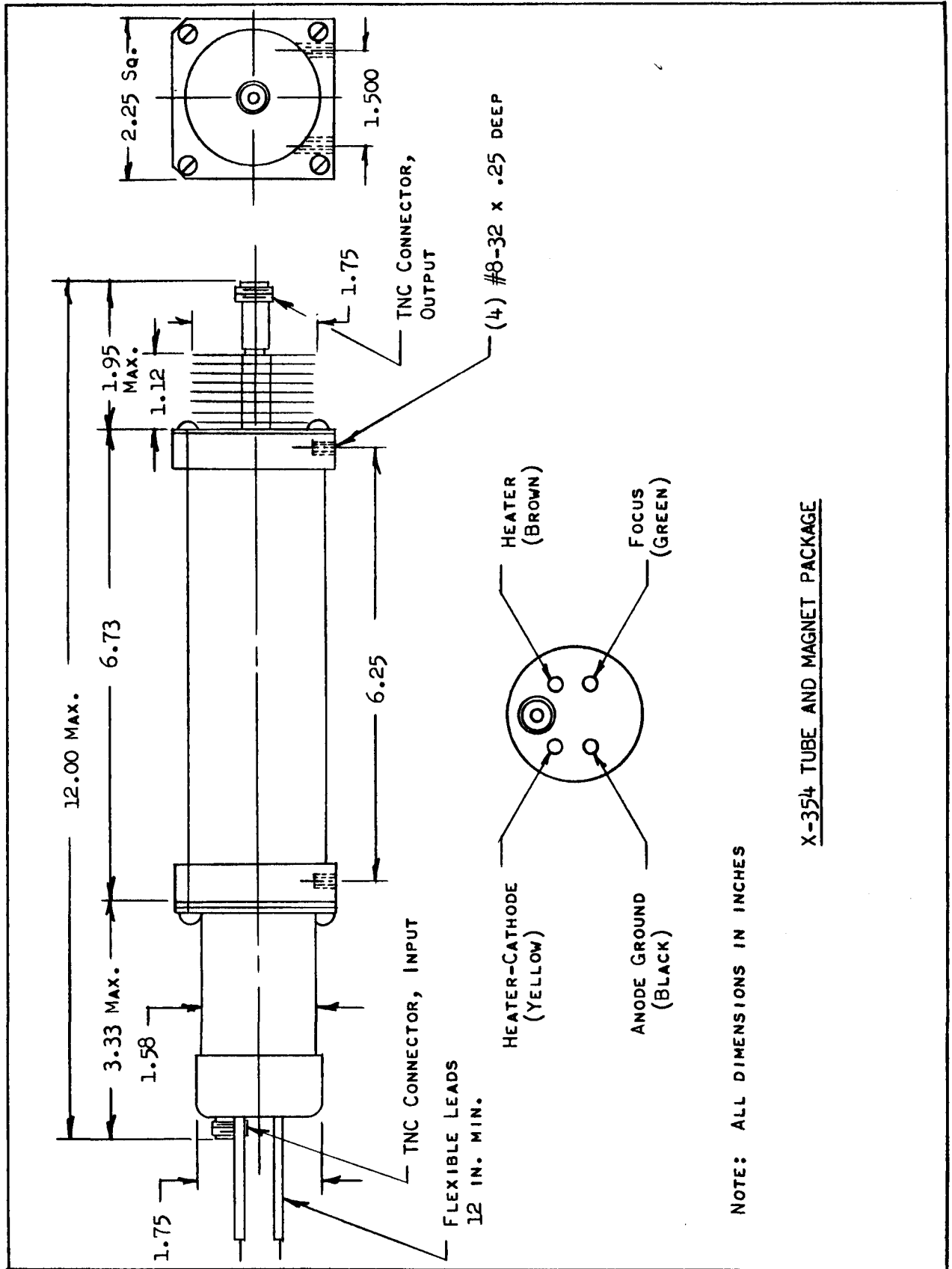
MAXIMUM RATINGS:

HELIX VOLTAGE WITH RESPECT TO GROUND (EXTERNALLY)	0	VOLTS
ANODE VOLTAGE WITH RESPECT TO GROUND	0	VOLTS
COLLECTOR VOLTAGE WITH RESPECT TO GROUND	0	VOLTS
CATHODE VOLTAGE WITH RESPECT TO GROUND	-4000	VOLTS
CATHODE CURRENT	60	MA
COLLECTOR CURRENT	60	MA
HELIX CURRENT	5	MA
FOCUS ELECTRODE VOLTAGE WITH RESPECT TO CATHODE	-100	VOLTS
BEAM DUTY CYCLE	100	PERCENT

NOTE 1: MINIMUM PERFORMANCE OVER THE FREQUENCY BAND OF 8 TO 12 KMC WITH
OPERATING CONDITIONS OPTIMIZED NEAR THE CENTER OF THE BAND.

ADDITIONAL INFORMATION FOR SPECIFIC APPLICATIONS CAN BE OBTAINED FROM
THE:

ELECTRON TUBE APPLICATIONS SECTION
ITT COMPONENTS DIVISION
POST OFFICE BOX 7065
ROANOKE, VIRGINIA



NOTE: ALL DIMENSIONS IN INCHES

X-354 TUBE AND MAGNET PACKAGE



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