

Traveling-Wave Tubes

Technical Information

RF PERFORMANCE

Tube Type	Frequency Range (Gc)	Min. CW Saturated Power Output (watts)	Min. Peak Power Output (watts)	Minimum Small Signal Gain (db)	Maximum Noise Figure (db)
ZM-3172	7-11	5	10 at 0.10 max. duty	30	30

- MEDIUM POWER
- X-BAND
- PPM FOCUSING

FEATURES

high gain
broad bandwidth
periodic permanent magnet focusing
metal-ceramic construction
military environments
light weight
air cooling
grid control

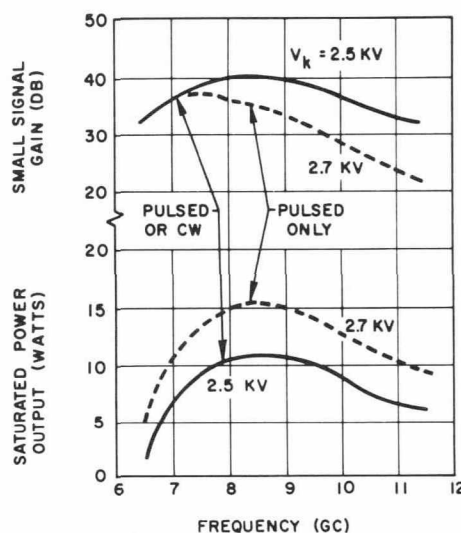
APPLICATIONS

radar
ecm
communications
instrumentation

MECHANICAL & MISCELLANEOUS

VSWR, max
Input..... 2.5
Output..... 2.5
Mounting position..... Any
Weight, lb. 2.1
Overall length, in. 8.55
Cooling..... Forced air
Flow, cfpm#..... 30
Max. inlet air temp., °C.... 25
Min. air press. in ft. (alt.).. 10,000
Connectors
RF input..... TNC, female
RF output..... TNC, female
DC..... Flying leads

TYPICAL CHARACTERISTICS



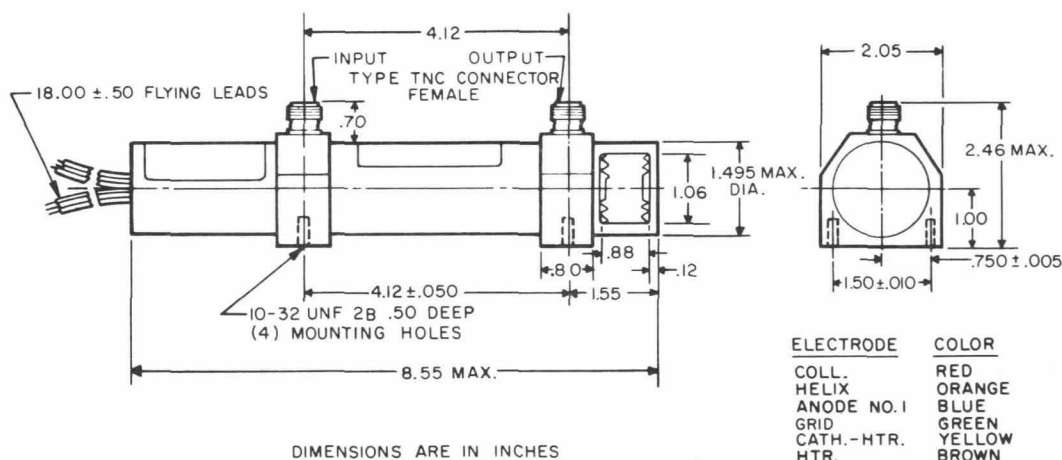
OPERATING CONDITIONS* †

Htr. vac or vdc	6.0 to 7.5
Htr. amp (max)	0.75
Cath. kv dc, with resp. to helix ..	-2.3 to -2.7
Cath. ma, (max)**	40
Anode 1 vdc, with resp. to cathode.....	400 to 550
Coll. vdc, with resp. to helix	0
Helix ma (max.)	5
Grid vdc	
Operating, with resp. to cath .	60 to 100
Cutoff, with resp. to cath....	-18 to -22
Grid ma	
Peak (max)	10
CW (max)	6

ENVIRONMENTAL

Shock.....	30 G, 11 ms, (energized)
Vibration	10 G, 70-2000 cps, (operating)
Temp., ambient....	-40 to +85°C (operating)
Altitude.....	100,000 ft (operating)
Acoustic noise.....	135 db, 25 to 12,000 cps

OUTLINE



NOTES

- # Sufficient air must be supplied to this tube to hold the collector temperature below 150°C.
- * For the performance ratings specified, voltages should be adjusted to values specified by instructions accompanying each tube. These values will be within the ranges given above.
- † The helix is connected to the package which should be grounded in the normal installation of this tube.
- ** Under light duty (less than 0.1) a peak power output of 10 watts may be obtained. Cathode current may go as high as 50 ma under these conditions.

These data are subject to change without notice.