

ELECTRONIC TUBE REFERENCE

7639

Specialized - Traveling Wave electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRAVELINGWAVE

Traveling-wave microwave amplifier providing broadband RF gain through interaction between an electron beam and a slow-wave structure.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 400 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1	TravelingWave
No fixed ratings recorded. Promoted values are taken directly from the supplied datasheet; additional ratings, characteristics and operating points are preserved in TUBE_SECTION_PARAMETER.	

Unpackaged traveling-wave tube for low-power broadband microwave amplification from 11.5 to 18 GHz.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1963 MULLARD

Section 1 · TravelingWave

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Collector voltage maximum	1850 V	—
Collector current maximum	450 uA	—
Collector dissipation maximum	800 mW	—
Helix voltage maximum	1750 V	—
Helix current maximum	45 uA	—
Anode2 voltage maximum	200 V	—
Anode1 voltage maximum	350 V	—
Focus-electrode voltage maximum	120 V	—
Input signal maximum	300 mW	—
Heater-to-cathode voltage maximum	50 V	—
Frequency minimum	11.5 GHz	—
Frequency maximum	18 GHz	—
Frequency	15 GHz	—
Collector voltage	1700 V	f=15GHz
Helix voltage	1600 V	f=15GHz
Anode2 voltage	150 V	f=15GHz
Anode1 voltage	320 V	f=15GHz
Focus-electrode voltage	-100 V	f=15GHz
Collector current	350 uA	f=15GHz
Gain	22 dB	f=15GHz
Noise factor	26 dB	f=15GHz

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output	10 uW	f=15GHz

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Gain minimum	20 dB	LowPowerLevel
Noise factor maximum	28 dB	—
Saturation output power minimum	3 mW	—