



ELECTRONIC TUBE REFERENCE

K311

Specialized - Klystron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
KLYSTRON

Low-voltage reflex klystron designed for microwave local-oscillator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	5
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Klystron

No fixed ratings recorded.

Microwave/special-function section; schema has no directly applicable promoted electrode fields; published electrical data preserved in parameters.

1l Low voltage reflex klystron for local oscillator service.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 English Electric Valve

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

1971 ENGLISH ELECTRIC VALVE

Section 1 · Klystron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Frequency range	9500 MHz	Frequency range 8500 to 9500 MHz
Typical output power	45 mw	Typical output power 45 mw
Electronic tuning range	30 MHz	Electronic tuning range 30 MHz
Heater voltage	6.3	Heater voltage 6.3 V
Heater current	600 mA	Heater current 0.6 A
Reflector connection (seenote2)	1	Reflector connection (seenote2) top cap B.S.5.448-CT1
Heatervoltage	6.8	Heatervoltage b8 6.8 V
Resonatorwvoltage	400	Resonatorwvoltage — 400 V
Resonator current	50 mA	Resonator current . . e = 50 mA
Heatervoltage	63	Heatervoltage 63 V
Resonatorvoltage	360	Resonatorvoltage 360 V

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	610 mA	Heater current 0.5b2 0.68 0.61 A
Resonator current	44 mA	Resonator current 20 35 44 mA
Reflectorvoltage	4	Reflectorvoltage . . . —165 — —365 V
Output power	45 mw	Output power 30 45 — mw
Mechanical tuning range	9500 MHz	Mechanical tuning range . . 8500 — 9500 MHz
Reflector modulation sen5 t V ty	0.75 V	Reflector modulation sen5 t V ty - 0.75 - MHz/V
1. Clockwise rotation of the tuner increases the frequency. The tuner torque	1	1. Clockwise rotation of the tuner increases the frequency. The tuner torque

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
2. The K311 is available to order with a flexible lead reflector connection	311 a	2. The K311 is available to order with a flexible lead reflector connection.
3. The resonator is normally operated at earth potential and in good thermal	3	3. The resonator is normally operated at earth potential and in good thermal
The reflector circuit impedance must not exceed 0.56M£2. The reflector	2	. The reflector circuit impedance must not exceed 0.56M£2. The reflector
When supplied as CV9492, the flexible lead reflector connection will be	9492	. When supplied as CV9492, the flexible lead reflector connection will be
2 Heater	2	2 Heater
5 Resonator	5	5 Resonator
7 Heater, cathode	7	7 Heater, cathode

TUBE TINKER

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