

ELECTRONIC TUBE REFERENCE

SZ51

Specialized - Klystron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
KLYSTRON

Rugged reflex klystron local oscillator centered near 8.45 GHz, intended for severe environments requiring high stability and reliability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Klystron	
MAXIMUM PLATE VOLTAGE	350 V
Klystron beam/resonator anode voltage is promoted to MaxPlateVoltage where applicable; original published labels and conditions are retained in parameter rows.	

Ferranti SZ51 is a rugged reflex klystron local oscillator centered near 8.45 GHz with a broad tuning range. It was designed for severe environments demanding high frequency stability and reliability.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Ferranti

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

1963 FERRANTI

Section 1 · Klystron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater voltage absolute limits	5.7–6.9 V	—
Heater current	1.2 A	Nominal ±10%
Maximum resonator voltage	350 V	—
Maximum resonator current	60 mA	—
Maximum negative reflector voltage	500 V	Magnitude; reflector negative
Maximum reflector current	10 uA	—
Maximum heater-cathode voltage	45 V	—
Maximum body temperature	200 C	—
Reflector voltage	-185--90 V	350 V resonator
Typical resonator current	—60 mA	350 V resonator
Typical power output	40— mW	350 V resonator

FREQUENCY		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating frequency	8050–8850 Mc/s	8450 ±400 Mc/s

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Electronic tuning range	30–80 Mc/s	—
Modulation sensitivity	0.6–2.7 Mc/s/V	—
Temperature coefficient	-100–50 kc/s/C	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum tuner resetting error	1 Mc/s	—
Maximum tuner side-thrust error	0.5 Mc/s	—

TUBE TINKER

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