ELECTRONIC TUBE REFERENCE

QF40

Specialized - Switching Tube electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
MICROWAVETRSWITCH

Integral-cavity high-Q 3-cm-band TR cell for radar duplexer and crystal-protection service. Gas discharge protects sensitive receiver components during transmitter pulses.

General characteristics

BASE DESIGNATION	_	**BASE PINS**	_
NOMINAL HEATER	_ / _	**PARALLEL HEATER**	_ / _
HEATING	Indirect; cold cathode	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 MicrowaveTRSwitch

No fixed ratings recorded.

Published Ferranti ratings and characteristics promoted where applicable; additional electrical, pulse, regulator, microwave, and operating data retained as parameters.

Integral-cavity high-Q 3-cm-band T.R. cell for radar duplexer and crystal protection service.

SOURCE OPERATING CONDITIONS

1963 Ferranti

SOURCE PDF

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

1963 FERRANTI

Section 1 · MicrowaveTRSwitch

APPLICATION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Application	**3-cm-band radar T.R. duplexer protection cell**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transmitter peak power maximum	**50 kW**	Pulse
VSWR maximum	**2**	—
Insertion loss maximum	**1.5 dB**	—
Leakage spike energy maximum	**0.04 erg/pulse**	Pulse
Leakage flat power maximum	**15 mW**	Pulse
Breakdown power minimum	**100 mW**	—
Recovery time to 6 dB loss maximum	**15 us**	—
Keep-alive breakdown voltage maximum	**1000 V**	—
Typical VSWR	**1.4**	—
Typical insertion loss	**1.2 dB**	—
Typical leakage spike energy	**0.02 erg/pulse**	Pulse
Typical leakage flat power	**10 mW**	Pulse
Typical breakdown power	**40 mW**	—
Typical recovery time to 6 dB loss	**2.5 us**	—
Typical keep-alive breakdown voltage	**700 V**	—
Typical keep-alive potential drop	**350 V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Keep-alive supply voltage	**-1000 V**	—
Keep-alive current minimum	**100 uA**	—
Keep-alive current maximum	**150 uA**	—
Keep-alive series resistance minimum	**1 Mohm**	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal tuning frequency	**9500 MHz**	—
Tuning range tolerance	**5 %**	—

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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