

ELECTRONIC TUBE REFERENCE

6KS6

Voltage Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
OTHER

Gated-beam tube combining limiter, discriminator, and audio-voltage amplification for television intercarrier-sound and FM receiver circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7DF	BASE PINS	7
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7DF - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – IS	A	IS – Internal Screen	CONNECTED
PIN1 – K	A	K – Cathode	CONNECTED
PIN2 – G1	A	G1 – Control Grid	CONNECTED
PIN3 – H	–	H – Heater	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – G2	A	G2 – Screen Grid	CONNECTED
PIN6 – G3	A	G3 – Suppressor Grid	CONNECTED
PIN7 – P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Other	
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	100 V
MAXIMUM CATHODE CURRENT	11.5 mA
<i>Gated-beam discriminator. Accelerator-grid ratings and separate grid-1/grid-3 transconductances are preserved as parameters rather than forced into screen/generic-transconductance fields.</i>	

Beam tube used as a combined limiter, discriminator, and audio-voltage amplifier in intercarrier television and FM receivers.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Other

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Supply Voltage	330 V	—
MaximumAcceleratorSupplyVoltage	330 V	—
MaximumPeakPositiveGrid1Voltage	60 V	—
Maximum DC Cathode Current	13 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1Transconductance	360 μ S	—
Grid3 Transconductance	700 μ S	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1 To All Capacitance	4.6 pF	—
Grid3ToAllCapacitance	3.4 pF	—
Grid1ToGrid3CapacitanceMaximum	0.005 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Other

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	9 mA	Published in approved 6KS6 target datasheet entry; Section1
Grid-Circuit Resistance	0.5 MΩ	Published in approved 6KS6 target datasheet entry; Section1
Heater Voltage (ac/dc) 3.15 4.2 6.3	12.6 V	Published in approved 6KS6 target datasheet entry; Section1
Heater Current 0.6 0.45 0.3	150 mA	Published in approved 6KS6 target datasheet entry; Section1
age) 11	11 seconds	Published in approved 6KS6 target datasheet entry; Section1
Plate-Supply Voltage	330 V	Published in approved 6KS6 target datasheet entry; Section1
Grid-No.2 Voltage	110 V	Published in approved 6KS6 target datasheet entry; Section1
Grid-No. 1 Voltage, Positive peak value	60 V	Published in approved 6KS6 target datasheet entry; Section1
Cathode Current	13 mA	Published in approved 6KS6 target datasheet entry; Section1
Heater Voltage (ac/dc) 6.3	8.4 V	Published in approved 6KS6 target datasheet entry; Section1
Heater Current 0.6	450 mA	Published in approved 6KS6 target datasheet entry; Section1
Heater Warm-up Time (Average) 11	11 seconds	Published in approved 6KS6 target datasheet entry; Section1
Plate Voltage	330 V	Published in approved 6KS6 target datasheet entry; Section1
Grid Voltage -1	-3 V	Published in approved 6KS6 target datasheet entry; Section1
Plate Resistance (Approx.) 21000	28000 Ω	Published in approved 6KS6 target datasheet entry; Section1
3600	2600 μS	Published in approved 6KS6 target datasheet entry; Section1
Plate Current 1.6	1.6 mA	Published in approved 6KS6 target datasheet entry; Section1
Grid Voltage (Approx.) for plate current of 10 /iA -2.6	-5.5 V	Published in approved 6KS6 target datasheet entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak	54 mA	Published in approved 6KS6 target datasheet entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Internal Shield	3.3 pF	Published in approved 6KS6 target datasheet entry; Section1
Triode Grid to Triode Plate	2.6 pF	Published in approved 6KS6 target datasheet entry; Section1
Triode Grid to Cathode and Heater	3.6 pF	Published in approved 6KS6 target datasheet entry; Section1
Triode Plate to Cathode and Heater	0.26 pF	Published in approved 6KS6 target datasheet entry; Section1
Diode Cathode to All Other Electrodes (Each Diode Unit)	5 pF	Published in approved 6KS6 target datasheet entry; Section1
Diode Plate to Diode Cathode and Heater (Each Diode Unit)	1.9 pF	Published in approved 6KS6 target datasheet entry; Section1
Diode Cathode to Diode Plate and Heater (Each Diode Unit)	4.8 pF	Published in approved 6KS6 target datasheet entry; Section1
Diode Plate to All Other Electrodes (Each Diode Unit)	3 pF	Published in approved 6KS6 target datasheet entry; Section1