

ELECTRONIC TUBE REFERENCE

R59TAV

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PHOTOEMISSIVEDETECTOR

Vacuum S1 red/infrared R59T-series phototube for theater sound projection and photoelectric sensing.

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 PhotoemissiveDetector	
MAXIMUM PLATE VOLTAGE	500 V
Photoelectric section. Published anode-cathode capacitance approximately 0.7 pF.	

The R59 series tubes are widely used in theater sound projection equipment. This medium sized tube has long been prominent in 35 MM semi- portable systems. Its rugged dependability makes it exceptionally adartable to "A" type sensitive to infra-red and "B" type sensitive to blue. The blue sensitive Visitron tubes have a high response to blue radiation and insignificant response to red radiation. This tube will prove advan- This variant uses the S1 cathode surface described by the family datasheet. The V variant is the higher-voltage vacuum version listed in the maximum-ratings table.

SOURCE OPERATING CONDITIONS

195X Visitron Rauland

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

195X VISITRON RAULAND

Section 1 · PhotoemissiveDetector

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Anode Voltage	500 V	Variant-specific maximum rating
Anode-Cathode Capacitance	0.7 pF	Variant-specific general characteristic
equipment. This medium sized tube has long been prominent in	35	equipment. This medium sized tube has long been prominent in 35 MM semi-
Cathode Size.....ovvvvineninneenn [1]	1.37 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [2]	62 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [3]	1.37 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [4]	62 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [5]	1.37 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [6]	62 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [7]	1.37 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"
Cathode Size.....ovvvvineninneenn [8]	62 V	Cathode Size.....ovvvvineninneenn 1.37" x .62" 1.37" x .62" 1.37" x .62"

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacitance (Anode-Cathode) [1]	2.5 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF. < .7 MMF.
Capacitance (Anode-Cathode) [2]	2 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF. < .7 MMF.
Capacitance (Anode-Cathode) [3]	8 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF. < .7 MMF.
Capacitance (Anode-Cathode) [4]	7 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF. < .7 MMF.
Leakage Resistance (Min) [1]	1000 Mohm	Leakage Resistance (Min)..... 1000 Meg 1000 Meg. 1000 Meg. 1000 Meg.
Leakage Resistance (Min) [2]	1000 Mohm	Leakage Resistance (Min)..... 1000 Meg 1000 Meg. 1000 Meg. 1000 Meg.
Leakage Resistance (Min) [3]	1000 Mohm	Leakage Resistance (Min)..... 1000 Meg 1000 Meg. 1000 Meg. 1000 Meg.
Leakage Resistance (Min) [4]	1000 Mohm	Leakage Resistance (Min)..... 1000 Meg 1000 Meg. 1000 Meg. 1000 Meg.
Cathode Size.....covviii [1]	1.37 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [2]	62 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [3]	1.37 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [4]	62 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [5]	1.37 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [6]	62 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [7]	1.37 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Cathode Size.....covviii [8]	62 V	Cathode Size.....covviii. ... 1.37" x 62" 1.37" x 62" 1.37" x .62" 1.37" x .62"
Capacitance (Anode-Cathode) [1]	2.5 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF, < .7 MMF.
Capacitance (Anode-Cathode) [2]	2 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF, < .7 MMF.
Capacitance (Anode-Cathode) [3]	8 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF, < .7 MMF.
Capacitance (Anode-Cathode) [4]	7 pF	Capacitance (Anode-Cathode)..... 2.5 MMF. 2.0 MMF. < .8 MMF, < .7 MMF.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Leakage Resistance (Min) [1]	1000 Mohm	Leakage Resistance (Min)..... 1000 Megq. 1000 Meg. 1000 Meg. 1000 Megq.
Leakage Resistance (Min) [2]	1000 Mohm	Leakage Resistance (Min)..... 1000 Megq. 1000 Meg. 1000 Meg. 1000 Megq.
Leakage Resistance (Min) [3]	1000 Mohm	Leakage Resistance (Min)..... 1000 Megq. 1000 Meg. 1000 Meg. 1000 Megq.
Leakage Resistance (Min) [4]	1000 Mohm	Leakage Resistance (Min)..... 1000 Megq. 1000 Meg. 1000 Meg. 1000 Megq.
Anode Voltage, Peak [1]	9 V	Anode Voltage, Peak..... 9oV 500V 90V 500V
Anode Voltage, Peak [2]	500 V	Anode Voltage, Peak..... 9oV 500V 90V 500V
Anode Voltage, Peak [3]	90 V	Anode Voltage, Peak..... 9oV 500V 90V 500V
Anode Voltage, Peak [4]	500 V	Anode Voltage, Peak..... 9oV 500V 90V 500V
Luminous Sensitivity ([1]	25 V	Luminous Sensitivity (25v)..... 40 uA/L DC 35 uAL/DC 40 uA/L DC 35 uAL/DC
Luminous Sensitivity ([2]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 35 uAL/DC 40 uA/L DC 35 uAL/DC
Luminous Sensitivity ([3]	35 V	Luminous Sensitivity (25v)..... 40 uA/L DC 35 uAL/DC 40 uA/L DC 35 uAL/DC
Luminous Sensitivity ([4]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 35 uAL/DC 40 uA/L DC 35 uAL/DC
Luminous Sensitivity ([5]	35 V	Luminous Sensitivity (25v)..... 40 uA/L DC 35 uAL/DC 40 uA/L DC 35 uAL/DC
Gas Amplification [1]	8	Gas Amplification 8 - 8
Gas Amplification [2]	8	Gas Amplification 8 - 8
Temperature, ambient [1]	100 C	Temperature, ambient 100°C 100°C 100°C 100°C
Temperature, ambient [2]	100 C	Temperature, ambient 100°C 100°C 100°C 100°C
Temperature, ambient [3]	100 C	Temperature, ambient 100°C 100°C 100°C 100°C
Temperature, ambient [4]	100 C	Temperature, ambient 100°C 100°C 100°C 100°C
Anode Voltage, Peak [1]	0 V	Anode Voltage, Peak..... 0V 500V 9oV 500V

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage, Peak [2]	500 V	Anode Voltage, Peak..... 0V 500V 90V 500V
Anode Voltage, Peak [3]	9 V	Anode Voltage, Peak..... 0V 500V 90V 500V
Anode Voltage, Peak [4]	500 V	Anode Voltage, Peak..... 0V 500V 90V 500V
Luminous Sensitivity [1]	250 V	Luminous Sensitivity 250 uA/L DC 45 uA/L DC 250 uA/L DC 45 uA/L DC
Luminous Sensitivity [2]	45 V	Luminous Sensitivity 250 uA/L DC 45 uA/L DC 250 uA/L DC 45 uA/L DC
Luminous Sensitivity [3]	250 V	Luminous Sensitivity 250 uA/L DC 45 uA/L DC 250 uA/L DC 45 uA/L DC
Luminous Sensitivity [4]	45 V	Luminous Sensitivity 250 uA/L DC 45 uA/L DC 250 uA/L DC 45 uA/L DC
Luminous Sensitivity ([1]	25 V	Luminous Sensitivity (25v)..... 40 uA/L DC 40 uA/L DC 40 uA/L DC 40 uA/L DC
Luminous Sensitivity ([2]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 40 uA/L DC 40 uA/L DC 40 uA/L DC
Luminous Sensitivity ([3]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 40 uA/L DC 40 uA/L DC 40 uA/L DC
Luminous Sensitivity ([4]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 40 uA/L DC 40 uA/L DC 40 uA/L DC
Luminous Sensitivity ([5]	40 V	Luminous Sensitivity (25v)..... 40 uA/L DC 40 uA/L DC 40 uA/L DC 40 uA/L DC
Gas Amplification [1]	8	Gas Amplification 8 - - 8
Gas Amplification [2]	8	Gas Amplification 8 - - 8

TUBE TINKER

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

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