ELECTRONIC TUBE REFERENCE

# R58AV

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA
**1 SECTION**
CONSTRUCTION
**PHOTOEMISSIVEDETECTOR**

Rugged vacuum S1 phototube for portable 16 mm sound-on-film heads and industrial photoelectric control.

## 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 2.0 pF.*

A sturdy constructed tube designed to withstand shock We recommend this tube to manufacturers developing new sound heads as the preferred type for use in portable 16 MM sound-on-film The RS8 series is exceptionally dependable when used in in- dustrial electronic control equipment (such as counting, sorting, burglar alarms, This tube is supplied with a five prong octal type base and a TS bulb, dimen. 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 | **2 pF** | Variant-specific general characteristic |
| The R6 | **1** | The R61 series is supplied with two types of cathode surfaces, |
| TYPE R5 | **8 V** | TYPE R58 “A" type sensitive to infra-red and “B” type sensitive to blue. |
| response to red radiation of the R6 | **1 V** | response to red radiation of the R61 blue sensitive tube makes it valuable in |
| Cathode Size [1] | **0** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [2] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [3] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [4] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [5] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [6] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [7] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Cathode Size [8] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [9] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [10] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [11] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [12] | **1** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Cathode Size [13] | **625** | Cathode Size .....00.n.. 1.00"” x .625" 1.00" x .625" 1.00"" x .625"" 1.00” x .625" 1.00" x .625" 1.00" x .625" |
| Capacitance (Anode-Cathode) [1] | **2.5 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Capacitance (Anode-Cathode) [2] | **2 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Capacitance (Anode-Cathode) [3] | **2.5 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Capacitance (Anode-Cathode) [4] | **2 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Capacitance (Anode-Cathode) [5] | **2.5 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Capacitance (Anode-Cathode) [6] | **2 pF** | Capacitance (Anode-Cathode) ... 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. 2.5 MMF. 2.0 MMF. |
| Leakage Resistance (Min) [1] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |
| Leakage Resistance (Min) [2] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |
| Leakage Resistance (Min) [3] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |
| Leakage Resistance (Min) [4] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Leakage Resistance (Min) [5] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |
| Leakage Resistance (Min) [6] | **1000 Mohm** | Leakage Resistance (Min) ..... 1000 Megq. 1000 Meq. 1000 Meg. 1000 Meg. 1000 Meg. 1000 Megq. |
| Anode Voltage, Peak ..... L' [1] | **500 V** | Anode Voltage, Peak ..... L' 500V 90V 500V 90V 500V |
| Anode Voltage, Peak ..... L' [2] | **90 V** | Anode Voltage, Peak ..... L' 500V 90V 500V 90V 500V |
| Anode Voltage, Peak ..... L' [3] | **500 V** | Anode Voltage, Peak ..... L' 500V 90V 500V 90V 500V |
| Anode Voltage, Peak ..... L' [4] | **90 V** | Anode Voltage, Peak ..... L' 500V 90V 500V 90V 500V |
| Anode Voltage, Peak ..... L' [5] | **500 V** | Anode Voltage, Peak ..... L' 500V 90V 500V 90V 500V |
| Luminous Sensitivity [1] | **225 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Luminous Sensitivity [2] | **40 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Luminous Sensitivity [3] | **225 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Luminous Sensitivity [4] | **40 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Luminous Sensitivity [5] | **250 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Luminous Sensitivity [6] | **45 V** | Luminous Sensitivity ..... 225 vA/LDC 40 uA/LDC 225 wA/LDC 40 uA/L DC 250 wA/LDC 45 uA/LDC |
| Gas Amplification [1] | **8** | Gas Amplification ..... 8 .- - 8 .- - 8 ... |
| Gas Amplification [2] | **8** | Gas Amplification ..... 8 .- - 8 .- - 8 ... |
| Gas Amplification [3] | **8** | Gas Amplification ..... 8 .- - 8 .- - 8 ... |
| Temperature, ambient [1] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |
| Temperature, ambient [2] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |

| PARAMETER | PUBLISHED VALUE | CONDITION / NOTE |
|---|---|---|
| Temperature, ambient [3] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |
| Temperature, ambient [4] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |
| Temperature, ambient [5] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |
| Temperature, ambient [6] | **100 C** | Temperature, ambient ..... 100°C 100°C 100°C 100°C 100°C 100°C |
| c g | **3** | c g 3 DIRECTION OF LIGHT CENTERLINE - o |