ELECTRONIC TUBE REFERENCE

R61A

Specialized - Photo Tube electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
PHOTOEMISSIVEDETECTOR

Rugged gas-amplified S1 phototube for portable optical sound heads and industrial photoelectric control equipment.

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	90 V

Photoelectric section. Published anode-cathode capacitance approximately 2.5 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 non-V variant has published gas amplification in the family 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	**90 V**	Variant-specific maximum rating
Anode-Cathode Capacitance	**2.5 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