SILONEX inc

T-41-41

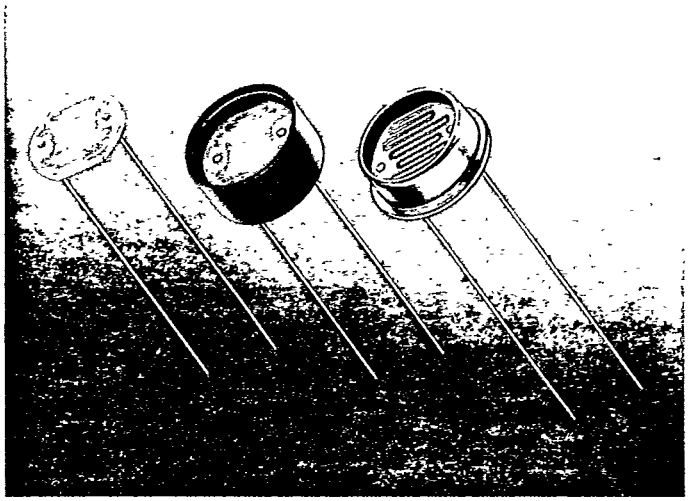
T0-8 PHOTOCONDUCTIVE CELLS

FEATURES

- **Three Photoconductive Materials**
- **Power Dissipation @ 25° C:**
  500 mW - Hermetically Sealed
  250 mW - Plastic Encapsulated
- **Resistance Tolerance: ± 40% @ 1 Ftc**
- **Temperature Range:**
  -60° C to +75° C - Type 2 & 4
  -60° C to +65° C - Type 3

NSL-2900, 3900, 4900 SERIES

T0-8



GENERAL DESCRIPTION

The Silonex T0-8 series of photoconductive cells provide up to six resistance ranges in either CdS, CdSe or CdS/CdSe material. Three mechanical configurations are available; a hermetically sealed package, a plastic package with optional glass window, and a moisture resistant plastic encapsulated version. These photocells are widely used in streetlight controls, furnace controls, and smoke detectors.

Selected resistance ranges and customized packages are available.

Silonex Part No.	Sensitive Material	Resistance @ 1 Ftc (ohms)	Typical Resistance @ 100 Ftc (ohms)	Minimum Dark Resistance (ohms)		Maximum Voltage Rating Peak AC or DC	Maximum Current (mA)
				Hermetic	Plastic		
NSL-2930	Type 2 CdS/CdSe Peak @ 620 nm	1.7K	45	500K	200K	70	100
NSL-2940		750	45	100K	50K	70	100
NSL-2970		7.5K	280	5M	1M	250	75
NSL-3920	Type 3 CdSe Peak @ 690 nm	4K	65	10M	2M	80	100
NSL-3930		1.7K	40	10M	2M	80	100
NSL-3940		750	30	10M	2M	80	100
NSL-3950		40K	650	20M	5M	320	75
NSL-3960		17K	400	20M	5M	320	75
NSL-3970		7.5K	250	20M	5M	320	75
NSL-4920	Type 4 CdS Peak @ 520 nm	4K	80	2M	1M	80	100
NSL-4930		1.7K	50	400K	200K	80	100
NSL-4940		750	30	50K	40K	80	100
NSL-4950		40K	860	30M	4M	320	75
NSL-4960		17K	500	4M	1M	320	75
NSL-4970		7.5K	260	500K	200K	320	75

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NSL-2900, 3900, 4900 SERIES

TO-8 PHOTOCONDUCTIVE CELLS

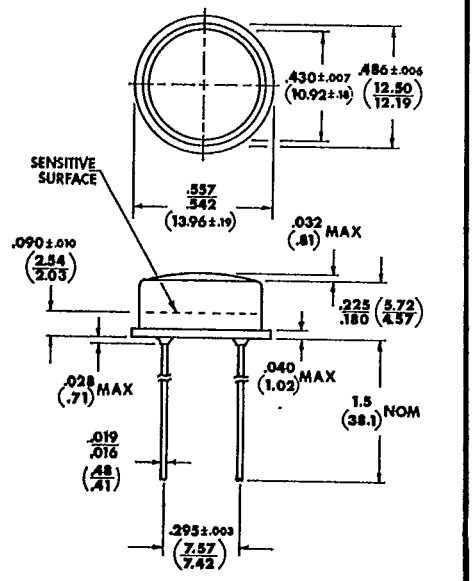
TO-8

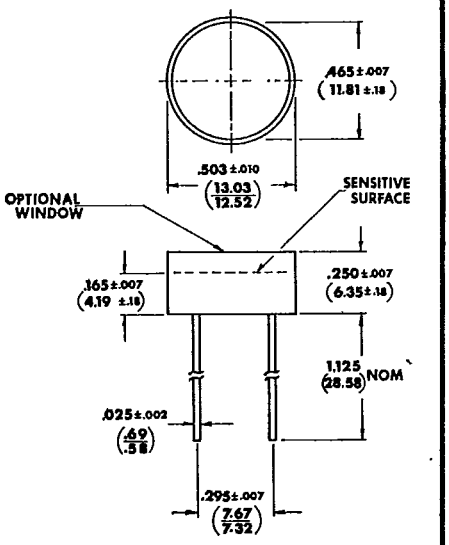
Silonex Part No.	Sensitive Material	Rise Time (ms) Dark To 110% R_L (1)		Decay Time (ms) To 10xR_L (1)		Typical Temperature Coefficient (% / °C)		Typical Capacitance In Dark (pF)
		@1Ftc	@100 Ftc	from 1 Ftc	from 100 Ftc	@ 1 Ftc	@ 100 Ftc	
NSL-2930	Type 2 CdS/CdSe	75	3.5	95	25	0.25	0.04	10
NSL-2940		75	3.5	95	25	0.25	0.04	10
NSL-2970		75	3.5	95	25	0.25	0.05	3.5
NSL-3920	Type 3 CdSe	7	0.4	5	3	2.6	0.75	10
NSL-3930		6	0.3	7	5	2.2	0.7	10
NSL-3940		5	0.2	12	7	1.8	0.7	10
NSL-3950		7	0.4	5	3	2.6	0.75	4
NSL-3960		6	0.3	8	5	2.2	0.7	4
NSL-3970		5	0.2	12	7	1.8	0.7	4
NSL-4920	Type 4 CdS	25	3	140	45	0.2	0.01	10
NSL-4930		20	3.6	300	100	0.2	0.01	10
NSL-4940		36.4	2.8	400	115	0.08	0.03	10
NSL-4950		15.5	1	35	25	0.2	0.01	3.5
NSL-4960		20	2	60	30	0.2	0.01	3.5
NSL-4970		18	2.8	120	48	0.08	0.03	3.5

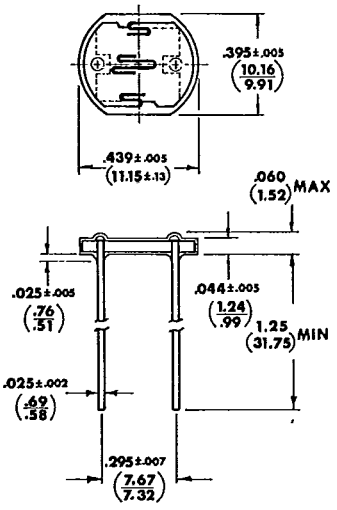
(1) R_L = Photocell resistance under given illumination.

MEASUREMENT DATA: Cells light adapted at 30 - 50 Ftc for 16 hours minimum prior to test. All measurements conducted at 25° C ambient, 2854° K.

Dark resistances measured 15 seconds after removal of room light (30 - 50 Ftc). Power derating: Linearly to 65° C for Type 3 and linearly to 75° C for Type 2 and 4.







Part Number Coding

NSL - 4930

- **2** - Type 2 CdS/Cdse
- **3** - Type 3 CdSe
- **4** - Type 4 CdS

TO-8 size

Resistance Range

- **0** - Hermetic package
- **1** - Encapsulated cell in plastic casing
- **2** - Plastic encapsulated cell
- **3** - Encapsulated cell in plastic casing with glass window

Subject to change without notice

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