



441M34

DETECTOR SPECIFICATIONS DATA SHEET

January 25, 1990

MODEL: 441M34
DETECTOR TYPE: Single Element
ELEMENT SIZE: 2.5 mm x 2.5 mm
ELEMENT MATERIAL: Lithium Tantalate
OPTICAL BANDWIDTH: 0.1 to 1000 microns

RESPONSIVITY (TYP.): 260 V/W

NOISE (TYP.): 4.51 $\mu\text{Vrms}/\sqrt{\text{Hz}}$

NEP (TYP.): 1.74×10^{-8} W/ $\sqrt{\text{Hz}}$

D STAR (TYP.): 1.43×10^7 cm $\sqrt{\text{Hz/W}}$

CHARACTERISTICS AT: (with -1 Filter) 2.0 μm to 25.0 μm , 500°K, 10 Hz, 1 Hz BW, $R_t = 25^\circ\text{C}$, $V = +8$ V dc

OPERATING VOLTAGE (MIN. & MAX.): + 5 to 15 V dc
REFERENCE VOLTAGE (MIN. & MAX.): + 2.42 to 2.58 V dc (At a maximum load current of 100 μA .)
OFFSET VOLTAGE (MIN. & MAX.): + 2.00 to 3.00 V dc
CURRENT DRAW (MAX.): 2.2 mA
OUTPUT VOLTAGE (MAX): $V_+ \text{ Rail} - 100$ mV

RECOMMENDED OPERATING TEMPERATURE: 0 to +70 °C
STORAGE TEMPERATURE: -55 to +125 °C

FUNCTIONAL
Delta T < 50 C°/minute

OUTPUT POLARITY: Negative for a positive change
OUTPUT LOAD (MIN.): 10 KOhms
OUTPUT PROTECTION: Short circuit protected but DO NOT REVERSE SUPPLY VOLTAGES.

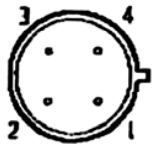
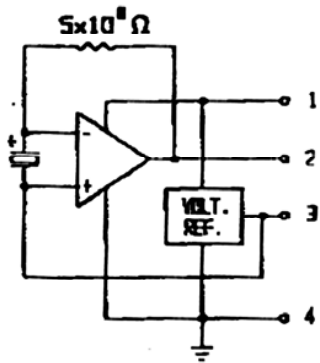
(Data is established on a sample basis and is believed to be representative.)

OCT 03 2007

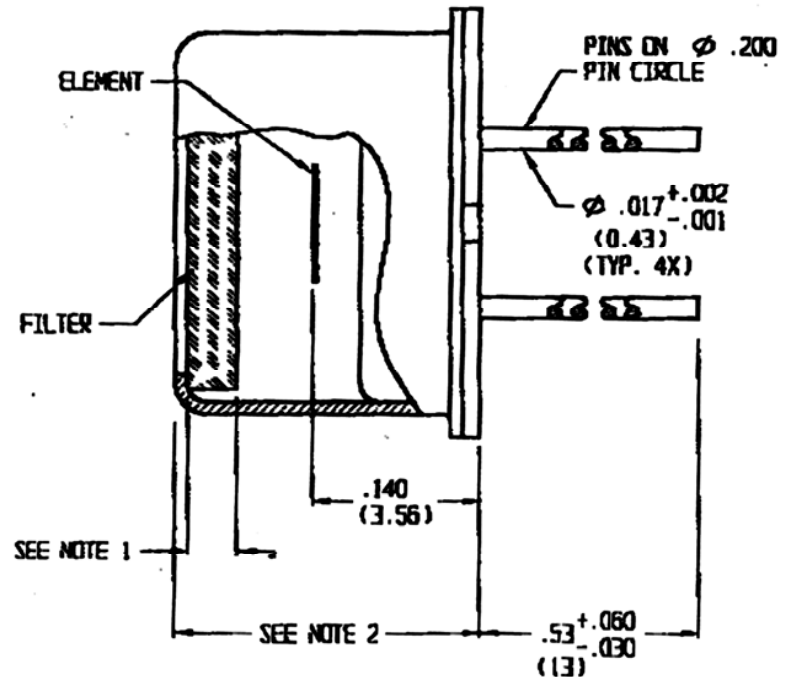
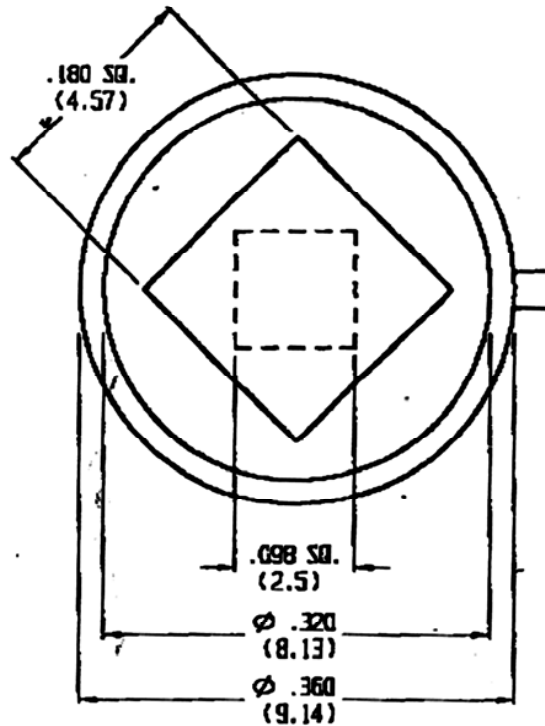
Revised October 3, 2007

silverlight^S

Worldwide Product Distribution and Technical Support:
Silverlight Ltd., CH-Winterthur, Switzerland
info@silverlight.ch www.silverlight.ch



BOTTOM VIEW
(NO SCALE)



NOTES:

1. FILTER THICKNESS DEPENDENT ON TYPE. THIS MODEL ACCOMMODATES FILTERS .010 MIN. TO .090 MAX. THICK.
2. OVERALL HEIGHT DEPENDENT ON THICKNESS OF FILTER AND HEIGHT OF CAN. WILL EITHER BE .190 ($.010 - .030$ THICK FILTERS) OR .250 (> .030 THICK FILTERS).
3. OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES.

PIN	DESIGNATION
1	V+
2	OUTPUT
3	2.5V REF.
4	CASE/GROUND

UNLESS OTHERWISE SPECIFIED

TTT C.

PROPRIETARY RIGHTS IN THE INFORMATION DISCLOSED ON THIS DRAWING. IT IS ISSUED IN CONFIDENCE FOR ENGINEERING INFORMATION ONLY AND MAY NOT, IN WHOLE OR IN PART, BE USED TO MANUFACTURE ANYTHING WHETHER OR NOT SHOWN HEREON, REPRODUCED OR DISCLOSED TO ANYONE WITHOUT DIRECT WRITTEN PERMISSION FROM ELTEC INSTRUMENTS, INC.

JUN 15 1999

TOLERANCES	
DECIMAL	FRACTIONAL
.XX = $\pm .010$	$\pm 1/64$
.XXX = $\pm .005$	ANGULAR
	$\pm 1^\circ$
BREAK SHARP CORNERS	

Distribution and Technical Support:
CH-Winterthur, Switzerland
info@silverlight.ch
www.silverlight.ch

UNKNOWN BY	KU	0-13-99
CHECKED BY	<i>[Signature]</i>	6-16-99
APPROVED BY	LC	6-16-99

SINGLE ELEMENT FULLY INTEGRATED DETECTOR		
SIZE	DES. NO.	REV.
A	7800769	
FILE: 7800769.PRT	SCALE: 6.5/1	SHEET 1 OF 1