



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.): $1.74 \times 10^{-8} \text{ W}/\sqrt{\text{Hz}}$

D STAR (TYP.): $1.43 \times 10^7 \text{ cm}^2/\sqrt{\text{Hz/W}}$

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

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): $V + \text{Rail} - 100 \text{ mV}$

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.

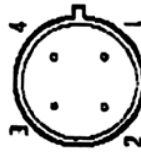
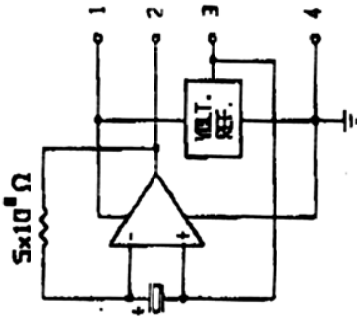
(Data is established on a sample basis and is believed to be representative.)

OCT 03 2007

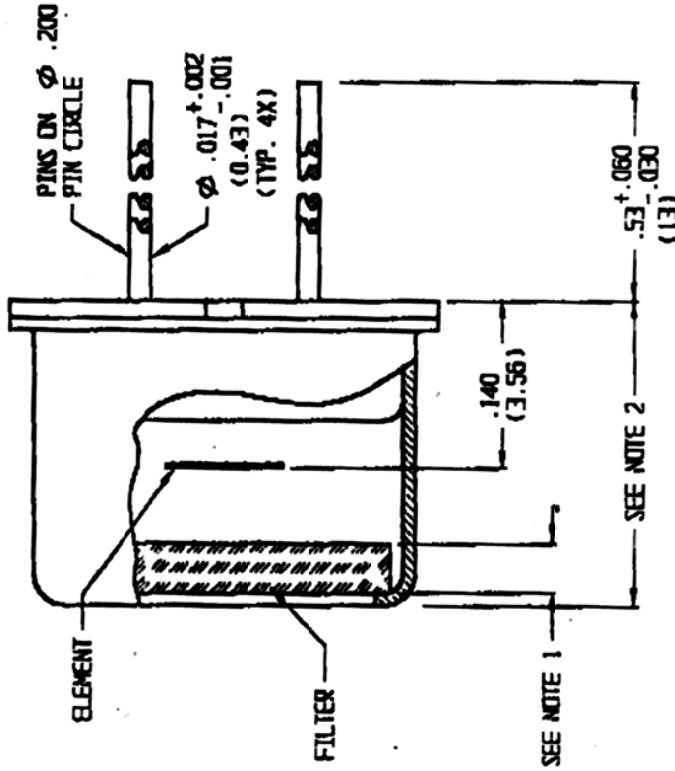
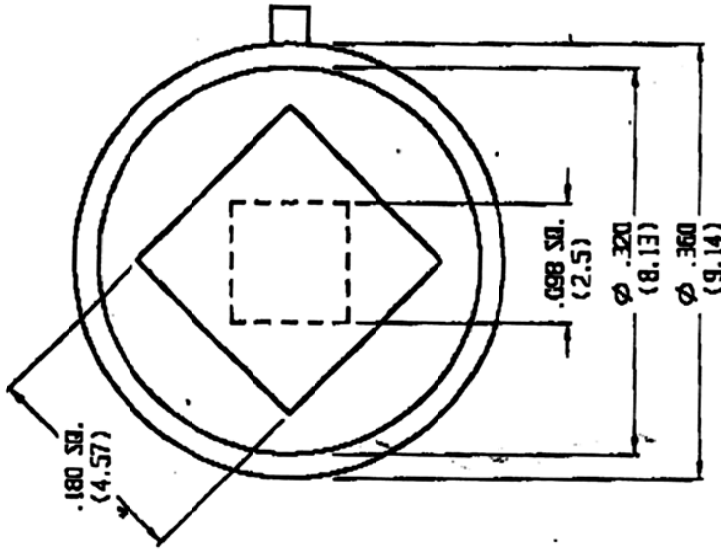
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silverlight^S

Worldwide Product Distribution and Free Technical Support:
Silverlight Ltd., Technoparkstr. 2, CH-8406 Winterthur, Switzerland
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BOTTOM VIEW
(IN SCALE)



NOTES:

1. FILTER THICKNESS DEPENDENT ON TYPE. THIS MODEL ACCOMMODATES FILTERS .010 MIN. TO .030 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

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UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES (MM)

TOLERANCES

DECIMAL	FRACTIONAL
.XX = +/- .010	+/- 1/64
.XXX = +/- .005	ANGULAR +/- 1°

BREAK SHARP CORNERS

Distribution and Technical Support:
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TABLE:

MODEL 441M34
SINGLE ELEMENT FULLY
INTEGRATED DETECTOR

UNLESS BY	REV.	SIZE	DES. NO.	REV.
CHECKED BY	6-16-99	A	7800769	
APPROVED BY	6-16-99			

FILE: 7800769.PRT SCALE: 0.5/1 SHEET 1 OF 1