



TECHNICAL DATA
DATA SHEET 1126 REV. (PRELIMINARY)

TWO-TERMINAL TEMPERATURE TRANSDUCER

- INTERNALLY IDENTICAL TO AD590J
- LINEAR CURRENT OUTPUT 1mA/K
- OPERATING VOLTAGE +4V TO +30V
- STORAGE TEMPERATURE RANGE -65°C TO 150°C
- OPERATING TEMPERATURE RANGE -55°C TO 150°C
- TWO HERMETIC CERAMIC PACKAGE OPTIONS (PART NUMBERS AD590-01, AD590-02)

ELECTRICAL CHARACTERISTICS ($T_A = -55^{\circ}\text{C}$ TO 150°C UNLESS OTHERWISE SPECIFIED)

| PARAMETER | CONDITIONS | MIN | TYP | MAX | UNITS |
|------------------------------|---|-----|-------------------|-----------------------|--|
| OUTPUT CURRENT | $T_A = 25^{\circ}\text{C}$ | - | 298.2 | - | μA |
| CALIBRATION ERROR | $T_A = 25^{\circ}\text{C}$ | - | - | ± 5.0 | $^{\circ}\text{C}$ |
| ABSOLUTE ERROR | NO EXTERNAL CALIBRATION 25°C CALIBRATION SET TO ZERO | - | - | ± 10 ± 3.0 | $^{\circ}\text{C}$ $^{\circ}\text{C}$ |
| NON-LINEARITY | - | - | - | ± 1.5 | $^{\circ}\text{C}$ |
| REPEATABILITY ¹ | - | - | - | ± 0.1 | $^{\circ}\text{C}$ |
| LONG TERM DRIFT | - | - | - | ± 0.1 | $^{\circ}\text{C}$ |
| CURRENT NOISE | - | - | 40 | - | $\text{pA}/\sqrt{\text{Hz}}$ |
| POWER SUPPLY REJECTION | +4V < V_+ < +5V +5V < V_+ < +15V +15V < V_+ < +30V | - | 0.5 0.2 0.1 | - | $\mu\text{A}/\text{V}$ $\mu\text{A}/\text{V}$ $\mu\text{A}/\text{V}$ |
| EFFECTIVE SHUNT CAPACITANCE | - | - | 100 | - | pF |
| ELECTRICAL TURN-ON TIME | - | - | 20 | - | μs |
| REVERSE BIAS LEAKAGE CURRENT | - | - | 10 | - | pA |

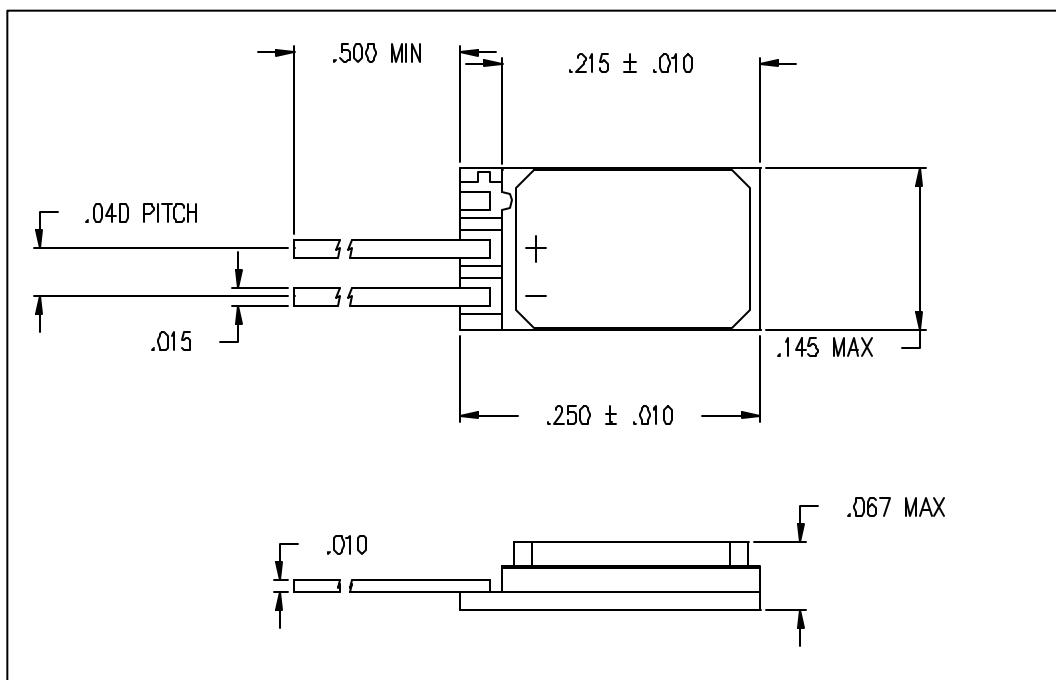
¹MAXIMUM DEVIATION BETWEEN $+25^{\circ}\text{C}$ READINGS AFTER TEMPERATURE CYCLING BETWEEN -55°C AND 150°C

SENSITRON

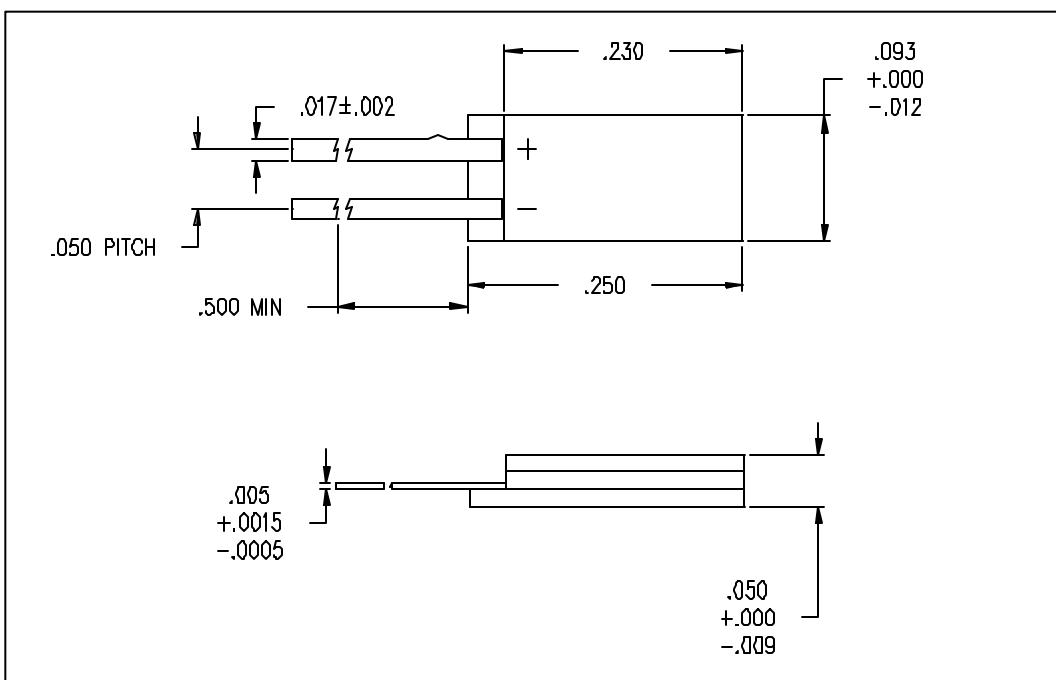
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MECHANICAL DIMENSIONS: In inches



PACKAGE OPTION -01



PACKAGE OPTION -02

TECHNICAL DATA

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