

TO : _____

SPECIFICATION
OF
PYROELECTRIC PASSIVE
INFRARED SENSOR

MODEL NO. PD632 _____

PART NO. _____

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SCOPE : THIS SPECIFICATION DESCRIBES A PYROELECTRIC PASSIVE INFRARED SENSOR

TYPE OF SENSOR : BALANCED DIFFERENTIAL (SERIES OPPOSED TYPE.)

PHYSICAL CONFIGURATION

- 1) APPEARANCE : THIS SENSOR IS CASED IN TO-5 METAL CAN WITH HERMETIC SEAL.
- 2) ELEMENT GEOMETRY AND ORIENTATION : SEE FIG. 1-B
- 3) LEAD TERMINAL CONFIGURATION : SEE FIGURE 1-C, 1-D
- 4) FIELD OF VIEW : 53° FROM EDGE OF ELEMENT ON AXIS X
: 48° FROM EDGE OF ELEMENT ON AXIS Y
: SEE FIGURE 1-A

ENVIRONMENTAL CHARACTERISTICS

- 1) OPERATING TEMPERATURE : -30°C ~ +70°C
- 2) STORAGE TEMPERATURE : -40°C ~ +80°C

ELECTRICAL CHARACTERISTICS (AT 25 C)

- 1) CIRCUIT CONFIGURATION : THREE-TERMINAL SENSOR WITH SOURCE FOLLOWER. SEE FIG. 2
- 2) SIGNAL OUTPUT : 2.4 Vp-p Typ.
(AT 1 Hz CHOPPING & 72.5 dB)
* SEE MEASURING METHOD IN FIG. 3
- 3) NOISE OUTPUT : 60 mVp-p Typ.
(FOR 20 SECONDS)
* SEE MEASURING METHOD IN FIG. 3

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4) OUTPUT BALANCE : 5 % Typ. (AT 1 Hz CHOPPING & 72.5 dB)

* PER FOLLOWING CALCULATIONS.

$$\left| \frac{V_A - V_B}{V_A + V_B} \right| \times 100 \quad \begin{array}{l} V_A : \text{SIGNAL OUTPUT ON ELEMENT A} \\ V_B : \text{SIGNAL OUTPUT ON ELEMENT B} \end{array}$$

5) OPERATING VOLTAGE : 3 ~ 10 V DC (R_S : 47K Ω)

6) SPECTRAL RANGE : DETERMINED BY FILTER

SUBSTRATE : SILICON, COATED

CUT ON (5% T ABS) : 6.5 \pm 0.5 μ m

TRANSMISSION : T > 80 % AVERAGE
BETWEEN 8 μ m AND 14 μ m

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**** FIGURE 1 ****

FIELD OF VIEW

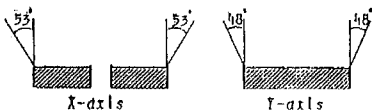


FIGURE 1-A

TOP VIEW

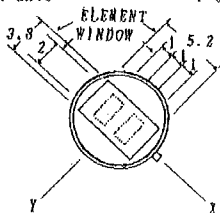


FIGURE 1-B

SIDE VIEW

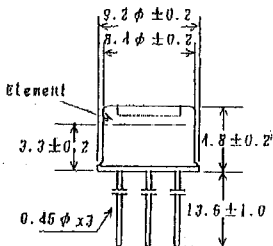


FIGURE 1-C

BASE VIEW

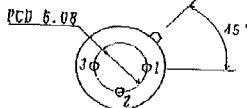


FIGURE 1-D

UNIT : mm

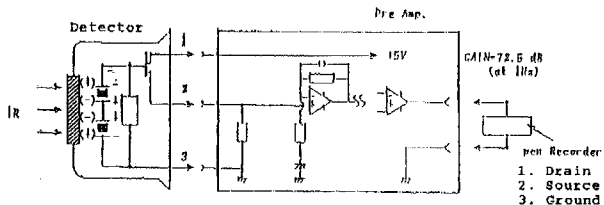
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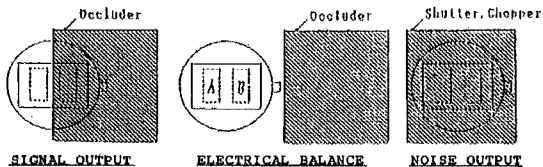
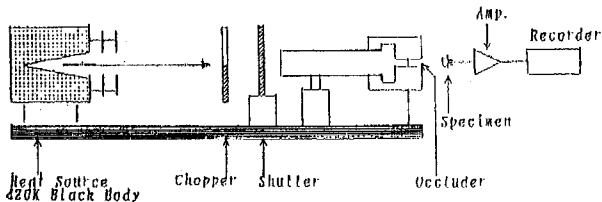
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CIRCUIT CONFIGURATION (FIGURE 2)



TEST SET-UP BLOCK DIAGRAM (FIGURE 3)

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