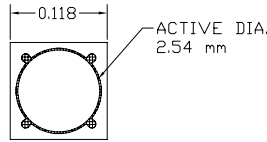
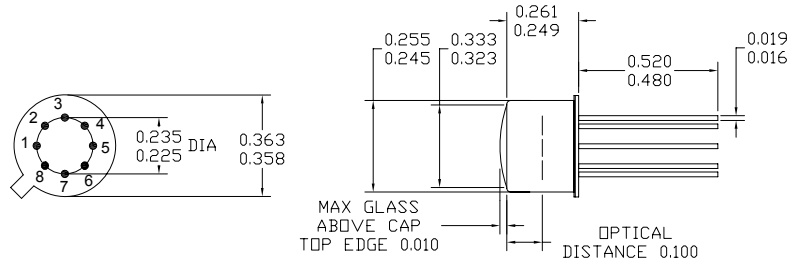




PACKAGE DIMENSIONS INCH



FOR SCHEMATIC AND CONNECTION
DIAGRAM SEE SHEET 2

TO-5 PACKAGE

CHIP DIMENSIONS

FEATURES

- Low noise
- UV enhanced
- Custom feedback
- High speed

DESCRIPTION

The **SD 100-42-23-232** is a UV enhanced detector/amplifier that combines a silicon photodiode with an opamp without a feedback network, Packaged in a hermetic TO-5 metal can package.

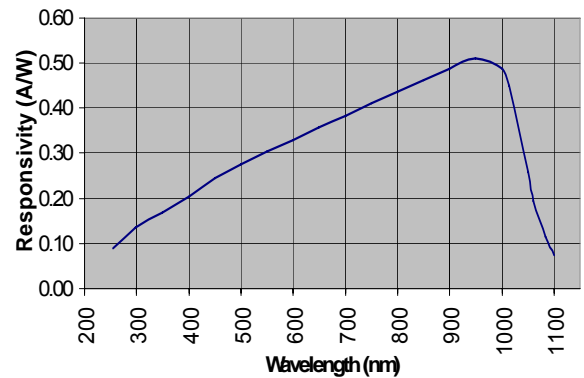
APPLICATIONS

- Instrumentation
- Industrial
- Medical

AMPLIFIER SPECIFICATIONS (TA)= 23°C UNLESS OTHERWISE NOTED

| SYMBOL | PARAMETER | MIN | TYP | MAX | UNITS |
|------------------|------------------------------------|-----|------|------|--------|
| V _s | Voltage Supplies | ± 5 | ± 15 | ± 18 | V |
| V _{io} | Input Offset Voltage | | 1 | 2 | mV |
| V _n | Input Voltage Noise @ f = 10KHz | | 12 | | nV/√Hz |
| I _{ib} | Input Bias Current | | 15 | 40 | pA |
| I _{io} | Input Offset Current | | 20 | 30 | pA |
| I _n | Input Current Noise @ f = 10KHz | | 20 | 30 | fA/√Hz |
| GBP | Gain Bandwidth Product | | 18 | | MHz |
| I _s | Supply Current | | 6.5 | 7 | mA |
| T _{STG} | Storage Temperature | -65 | | +125 | °C |
| T _O | Operating Temperature | -40 | | +85 | °C |

SPECTRAL RESPONSE

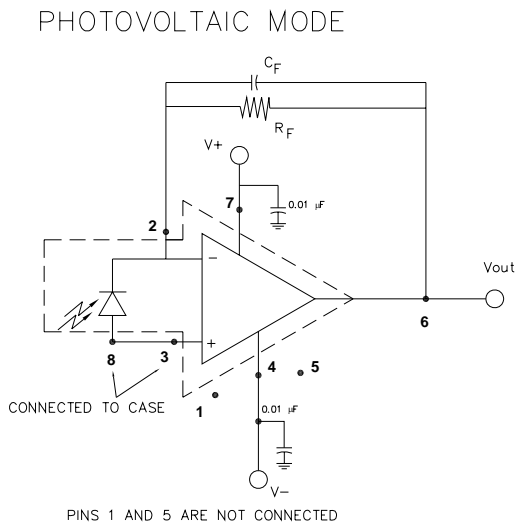


DETECTOR SPECIFICATIONS (TA)= 23°C UNLESS OTHERWISE NOTED

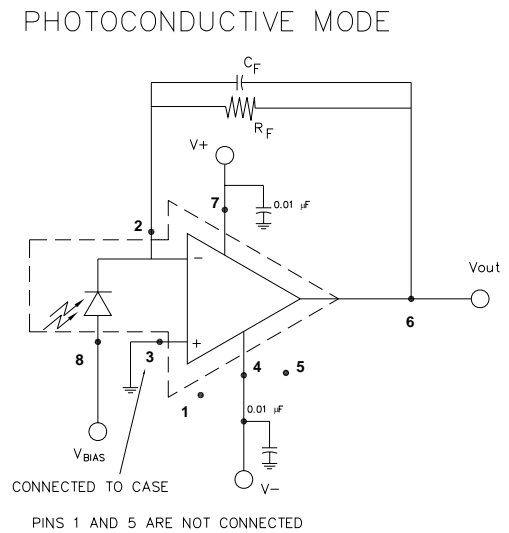
| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
|-----------------|----------------------------|----------------------------------|-----|------|------|-------|
| I _D | Dark Current | V _R = 10 V | | | 10 | nA |
| R _{SH} | Shunt Resistance | V _R = 0 V | 300 | | | MΩ |
| C _J | Junction Capacitance | V _R = 0 V, f = 1 MHz | | 87 | | pF |
| | | V _R = 10 V, f = 1 MHz | | 18 | | |
| λ range | Spectral Application Range | Spot Scan | 250 | | 1100 | nm |
| R | Responsivity | λ = 365 nm, V _R = 0 V | | 0.15 | | |



SCHEMATIC AND CONNECTION DIAGRAM



Note: Components shown outside the dashed area are external to the device, and must be supplied by the user.



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Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.