

TO-5 HERMETIC CAN PACKAGE
ACTIVE AREA $=17.74 \mathrm{~mm}^{2}$

## FEATURES

- Low noise
- I.R. pass visible rejection
- Match to I.R. emitters
- Hermetic package


## DESCRIPTION

The PDI-V114-F is a silicon, PIN planar diffused photodiode with NIR pass, visible light rejection optical filter. Ideal for low noise, photovoltaic NIR applications. Packaged in a hermetic TO-5 metal can with a flat window cap.
ABSOLUTE MAXIMUM RATING ( $\mathrm{TA}=25^{\circ} \mathrm{C}$ unless otherwise noted)

| SYMBOL | PARAMETER | MIN | MAX | UNITS |
| :---: | :--- | :---: | :---: | :---: |
| $\mathrm{V}_{\text {BR }}$ | Reverse Voltage |  | 100 | V |
| $\mathrm{~T}_{\text {STG }}$ | Storage Temperature | -55 | +100 | ${ }^{\circ} \mathrm{C}$ |
| To | Operating Temperature Range | -40 | +80 | ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{Ts}_{\mathrm{s}}$ | Soldering Temperature ${ }^{*}$ |  | +240 | ${ }^{\circ} \mathrm{C}$ |
| $\mathrm{I}_{\mathrm{L}}$ | Light Current |  | 0.5 | mA |

LECTRO-OPTICAL CHARACTERISTICS (TA $=25^{\circ} \mathrm{C}$ unless otherwise noted)

| SYMBOL | CHARACTERISTIC | TEST CONDITIONS | MIN | TYP | MAX | UNITS |
| :---: | :--- | :--- | :---: | :---: | :---: | :---: |
| Isc | Short Circuit Current | $\mathrm{H}=100 \mathrm{fc}, 2850 \mathrm{~K}$ | 180 | 207 |  | mA |
| ID | Dark Current | $\mathrm{H}=0, \mathrm{~V}_{\mathrm{R}}=10 \mathrm{~V}$ |  | 335 | 550 | pA |
| RsH | Shunt Resistance | $\mathrm{H}=0, \mathrm{~V}_{\mathrm{R}}=10 \mathrm{mV}$ | .2 | 1 |  | $\mathrm{G} \Omega$ |
| TC Rsh | RSH Temp. Coefficient | $\mathrm{H}=0, \mathrm{~V}_{\mathrm{R}}=10 \mathrm{mV}$ |  | -8 |  | $\% /{ }^{\circ} \mathrm{C}$ |
| C | Junction Capacitance | $\mathrm{H}=0, \mathrm{~V}_{\mathrm{R}}=0 \mathrm{~V}^{\star \star}$ |  | 2000 |  | pF |
| $\lambda r a n g e$ | Spectral Application Range | Spot Scan | 700 |  | 1100 | nm |
| $\lambda p$ | Spectral Response - Peak | Spot Scan |  | 950 |  | nm |
| VBR | Breakdown Voltage | $\mathrm{I}=10 \mathrm{~mA}$ | 30 | 50 |  | V |
| NEP | Noise Equivalent Power | $\mathrm{V}_{\mathrm{R}}=10 \mathrm{mV} @$ Peak |  | $2 \times 10^{-14}$ |  | $\mathrm{~W} / \sqrt{\mathrm{Hz}}$ |
| tr | Response Time | $\mathrm{RL}=1 \mathrm{~K} \Omega \mathrm{~V}_{\mathrm{R}}=0 \mathrm{~V}$ |  | 900 |  | nS |

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[^0]:    Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications

