

### FEATURES

- Ø 3.57 mm active area
- Long term stability
- High sensitivity
- UV/ Blue enhanced

### DESCRIPTION

10.0 mm<sup>2</sup> UV Silicon Photodiode with N on P construction. Hermetically packaged in a TO-5 with a UV transmitting clear glass window cap. If operating at less than 270 nm, order fused silica window version P/N 03-146.

### APPLICATIONS

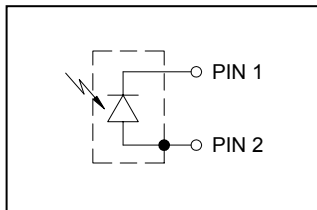
- UV exposure meters
- Pollution monitoring
- Fluorescent analyzers
- Medical instrumentation



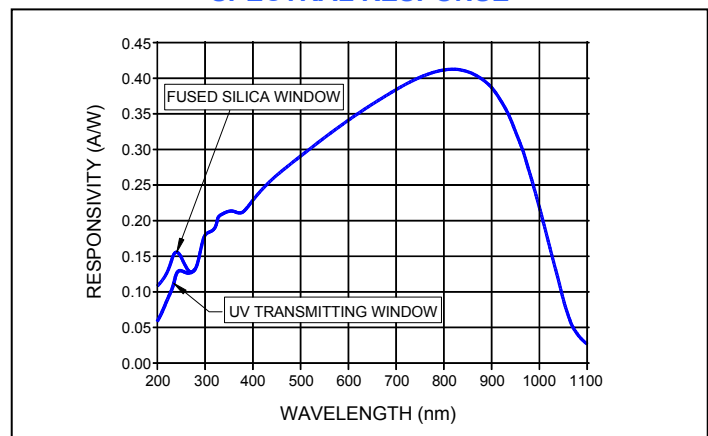
### ABSOLUTE MAXIMUM RATING

| SYMBOL               | PARAMETER                 | MIN | MAX  | UNITS |
|----------------------|---------------------------|-----|------|-------|
| T <sub>STG</sub>     | Storage Temp              | -55 | +125 | °C    |
| T <sub>OP</sub>      | Operating Temp            | -40 | +100 | °C    |
| V <sub>R(OP)</sub>   | Reverse Operating Voltage | -   | 50   | V     |
| I <sub>I(PEAK)</sub> | Peak DC Current           | -   | 10   | mA    |

### SCHEMATIC



### SPECTRAL RESPONSE



### ELECTRO-OPTICAL CHARACTERISTICS @ 22° C

| SYMBOL          | CHARACTERISTIC         | TEST CONDITIONS   | MIN | TYP                     | MAX | UNITS               |
|-----------------|------------------------|---|-----|-------------------------|-----|---------------------|
| R <sub>SH</sub> | Shunt Resistance       | V <sub>R</sub> = ±10 mV                                 | 100 | 500                     | --- | MΩ                  |
| I <sub>D</sub>  | Dark Current           | V <sub>R</sub> = 5 V                                    | --- | 1.0                     | --- | nA                  |
| C               | Capacitance            | V <sub>R</sub> = 0 V                                    | --- | 330                     | --- | pF                  |
|                 |                        | V <sub>R</sub> = 5 V                                    | --- | 160                     | --- |                     |
|                 | Responsivity           | V <sub>R</sub> = 0 V; λ = 340 nm                        | --- | 0.17                    | --- | A/W                 |
|                 |                        | V <sub>R</sub> = 0 V; λ = 850 nm                        | --- | 0.42                    | --- |                     |
| NEP             | Noise Equivalent Power | V <sub>R</sub> = 0 V; λ = 850 nm; R <sub>L</sub> = 50 Ω | --- | 1.6 X 10 <sup>-14</sup> | --- | W/Hz <sup>1/2</sup> |
| V <sub>BR</sub> | Breakdown Voltage      | I <sub>R</sub> = 10 μA                                  | 30  | 50                      | --- | V                   |
| t <sub>r</sub>  | Rise Time              | V <sub>R</sub> = 5 V; λ = 410 nm; R <sub>L</sub> = 50 Ω | --- | 0.3                     | --- | μs                  |

These devices are sensitive to electrostatic discharge. Please use ESD precautions when handling.

Disclaimer: Due to our policy of continued development, specifications are subject to change without notice.

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