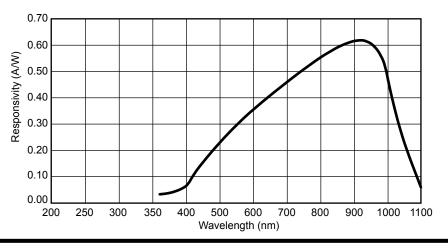
## Pacific Silicon Sensor Inc. **Quadrant Photodiodes: Positioning Detectors**

A quadrant photodiode is a 2x2 array of individual photodiode active areas, separated by a small gap, fabricated on a single chip. This maximizes the uniformity and performance matching between the four individual elements. Quadrant photodiodes are used most frequently for position sensing of laser beems, autocollimators and other alignment applications.

In addition to the devices listed below, Pacific Silicon Sensor can design and manufacture quadrant photodiodes in differing sizes and shapes, enhanced to meet the requirements of your specific application. Our quadrant photodiodes are also available in die form or can be mounted on/in any electronic package or substrate compatible with wire bonding.

| Part          | Total<br>Active Area   |                 | Gap | Responsivity<br>@ 633nm | Dark Current<br>@ 10Vr | Capacitance<br>@ 10Vr | Rise Time<br>@ 10V, 850nm | Breakdown<br>Voltage |      |     |
|---------------|--|-----------------|-----|-------------------------|------------------------|-----------------------|---------------------------|----------------------|------|-----|
| Number        | Size (mm)  | mm <sup>2</sup> | μm  | A/W                     | nA                     | pF                    | ńs                        | v                    | Data | Pkg |
| QP1.16-6      | 1.1 x 1.1  | 1.16            | 20  | 0.45                    | 1                      | 10                    | 100                       | 30                   |      | N/A |
| QP5.8-6-TO5   | 1.2 x 1.2  | 5.76            | 50  | 0.45                    | 2                      | 10                    | 100                       | 30                   |      | N/A |
| QP50-6        | Ø 7.98   | 50              | 42  | 0.45                    | 5                      | 70                    | 40                        | 15                   | N/A  | -   |
| QP50-6-18     | Ø 7.98   | 50              | 18  | 0.45                    | 5                      | 70                    | 40                        | 15                   | N/A  |     |
| QP100-6       | Ø 11.2   | 100             | 50  | 0.45                    | 10                     | 130                   | 50                        | 15                   | N/A  | POF |
| QP50-6SD2     | 50mm <sup>2</sup> quadrant detector module with sum & difference electronics. Ready to use with connector. (Sum and difference PCB can be purchased without QP50-6 detector) |                 |     |                         |                        |                       |                           |                      |      | N/A |
| QP50-6SD-DIAG | 50mm <sup>2</sup> quadrant detector module with sum & difference electronics. Provides top minus bottom and diagonal difference signals.                                     |                 |     |                         |                        |                       |                           |                      |      | N/A |

## Whatever your light sensing problem... Make Pacific Silicon Sensor your solution!



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