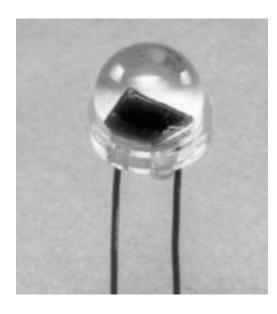
# **VTP Process Photodiodes**

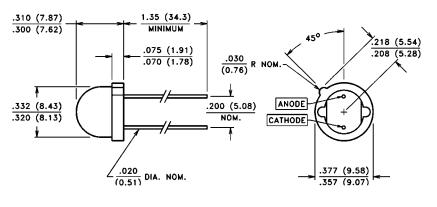
# VTP1188S



**PRODUCT DESCRIPTION** 

Large area planar silicon photodiode mounted on a two lead ceramic substrate. A clear molded lens is used to increase sensitivity. Low junction capacitance permits fast response time.

#### PACKAGE DIMENSIONS inch (mm)



CASE 12 LENSED CERAMIC CHIP ACTIVE AREA: .017 in<sup>2</sup> (1.1 mm<sup>2</sup>)

### ABSOLUTE MAXIMUM RATINGS

| Storage Temperature:   | -20°C to 75°C |
|------------------------|---------------|
| Operating Temperature: | -20°C to 75°C |

### ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTP curves, page 46)

| SYMBOL             | CHARACTERISTIC                          | TEST CONDITIONS                 | VTP11188S |      |      |       |
|--------------------|---|---------------------------------|-----------|------|------|-------|
|                    |   |                                 | Min.      | Тур. | Max. | UNITS |
| I <sub>SC</sub>    | Short Circuit Current                   | H = 100 fc, 2850 K              |           | 200  |      | μA    |
| TC I <sub>SC</sub> | I <sub>SC</sub> Temperature Coefficient | 2850 K                          |           | .20  |      | %/°C  |
| I <sub>SC</sub>    | Short Circuit Current                   | 100 µW/cm <sup>2</sup> , 880 nm | 13        |      | 25   | μA    |
| V <sub>OC</sub>    | Open Circuit Voltage                    | H = 100 fc, 2850 K              |           | .33  |      | mV    |
| TC V <sub>OC</sub> | V <sub>OC</sub> Temperature Coefficient | 2850 K                          |           | -2.0 |      | mV/°C |
| Ι <sub>D</sub>     | Dark Current                            | H = 0, VR = 10 mV               |           | 3    | 30   | nA    |
| R <sub>SH</sub>    | Shunt Resistance                        | H = 0, V = 10 mV                |           | 67   |      | GΩ    |
| TC R <sub>SH</sub> | R <sub>SH</sub> Temperature Coefficient | H = 0, V = 10 mV                |           | -11  |      | %/°C  |
| CJ                 | Junction Capacitance                    | H = 0, V =0 V                   |           | .18  | .30  | nF    |
| $\lambda_{range}$  | Spectral Application Range              |                                 | 400       |      | 1100 | nm    |
| λ <sub>p</sub>     | Spectral Response - Peak                |                                 |           | 925  |      | nm    |
| S <sub>R</sub>     | Sensitivity                             | @ Peak                          |           | .55  |      | A/W   |