



IR Emitter and Detector Product Data Sheet

LTR-526AB

Spec No.: DS50-2000-005

Effective Date: 07/24/2012

Revision: B

LITE-ON DCC

RELEASE

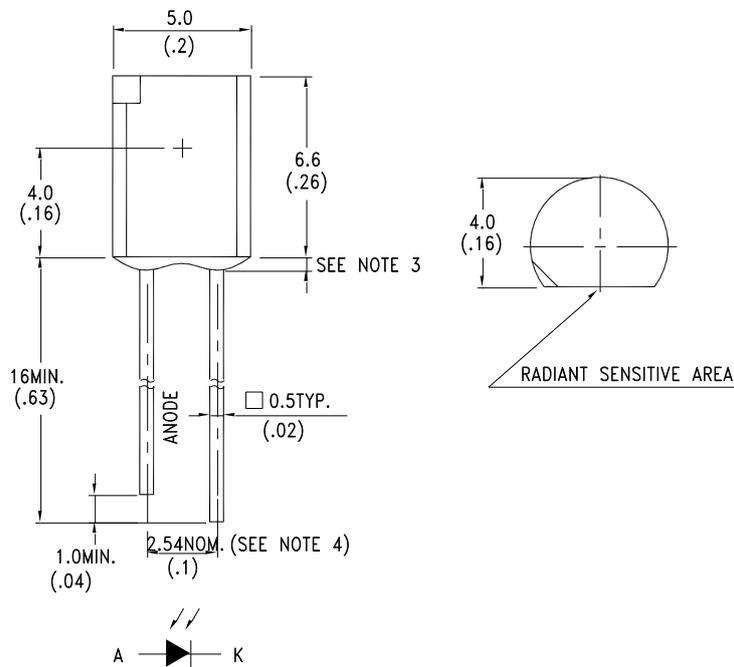
BNS-OD-FC001/A4

FEATURES

- * HIGH PHOTO SENSITIVITY
- * SUITABLE FOR INFRARED RADIATION
- * LOW JUNCTION CAPACITANCE
- * HIGH CUT-OFF FREQUENCY
- * FAST SWITCHING TIME
- * THE LTR-526AB IS A SPECIAL DARK BLUE PLASTIC PACKAGE THAT CUT THE VISIBLE LIGHT AND SUITABLE FOR THE DETECTORS OF INFRARED APPLICATIONS



REV.B JUL 2012

PACKAGE DIMENSIONS**NOTES:**

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}(.010\text{'})$ unless otherwise noted.
3. Protruded resin under flange is $1.5\text{mm}(.059\text{'})$ max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

ABSOLUTE MAXIMUM RATINGS AT TA=25°C

| PARAMETER | MAXIMUM RATING | UNIT |
|--|---------------------|------|
| Power Dissipation | 150 | mW |
| Reverse Voltage | 30 | V |
| Operating Temperature Range | -40°C to + 85°C | |
| Storage Temperature Range | -55°C to + 100°C | |
| Lead Soldering Temperature [1.6mm(.063") From Body] | 260°C for 5 Seconds | |

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

| PARAMETER | SYMBOL | MIN. | TYP. | MAX. | UNIT | TEST CONDITION |
|-----------------------------------|------------------|------|------|------|---------|---|
| Reverse Break Down Voltage | $V_{(BR)R}$ | 30 | | | V | $I_R = 100 \mu A$ $E_e = 0mW/cm^2$ |
| Reverse Dark Current Voltage | $I_{D(R)}$ | | | 30 | nA | $V_R = 10V$ $E_e = 0mW/cm^2$ |
| Open Circuit Voltage | V_{OC} | | 350 | | mV | $\lambda = 940nm$ $E_e = 0.5mW/cm^2$ |
| Rise Time | T_r | | 50 | | nsec | $V_R = 10V$ $\lambda = 940nm$ $R_L = 1K\Omega$ |
| Fall Time | T_f | | 50 | | nsec | |
| Short Circuit Current | I_S | 1.7 | 2 | | μA | $V_R = 5V$ $\lambda = 940nm$ $E_e = 0.1mW/cm^2$ |
| Total Capacitance | C_T | | 25 | | P | $V_R = 3V$ $f = 1MHZ$ $E_e = 0mW/cm^2$ |
| Wavelength of the Max Sensitivity | λ_{SMAX} | | 900 | | nm | |

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

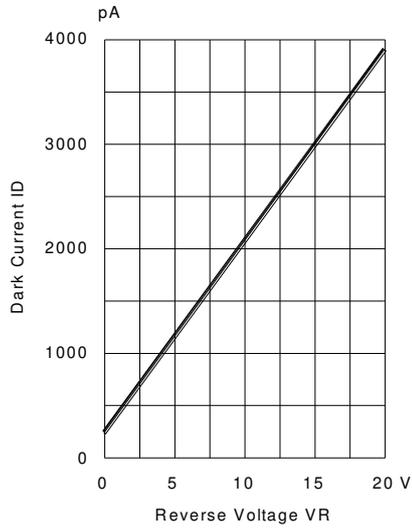


Fig.1 DARK CURRENT VS. REVERSE VOLTAGE
TA=25° C, Ee=0 mW/cm²

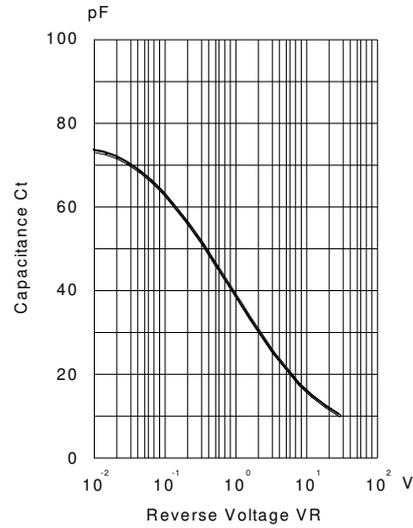


Fig.2 CAPACITANCE VS. REVERSE VOLTAGE
F=1MHZ; Ee=0mW/cm²

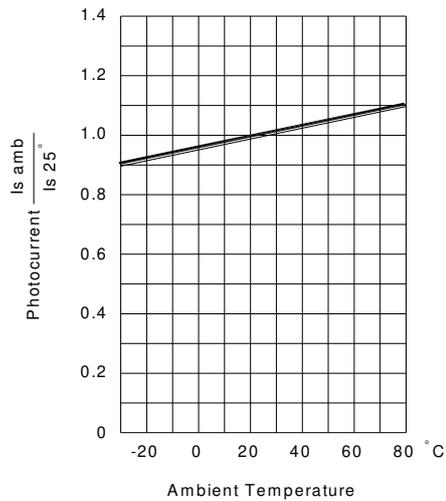


Fig.3 PHOTOCURRENT VS. AMBIENT TEMPERATURE

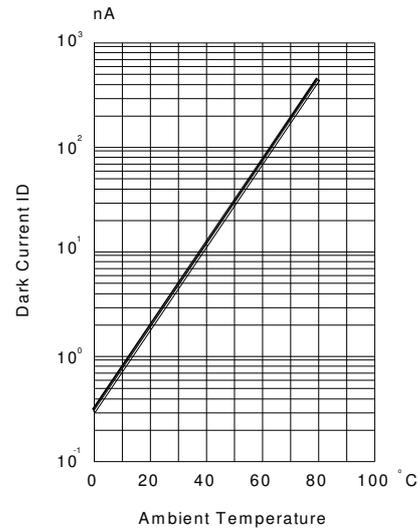


Fig.4 DARK CURRENT AMBIENT TEMPERATURE
VR=10, Ee=0mW/cm²

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25°C Ambient Temperature Unless Otherwise Noted)

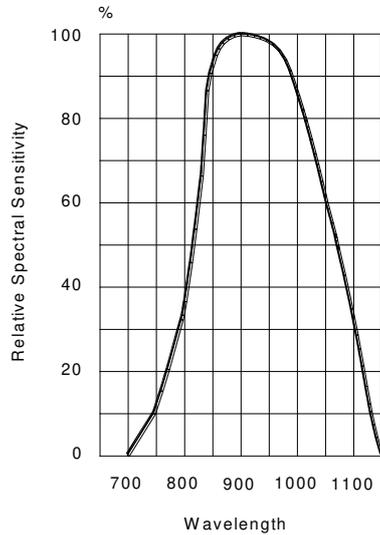


Fig.5 RELATIVE SPECTRAL SENSITIVITY VS WAVELENGTH

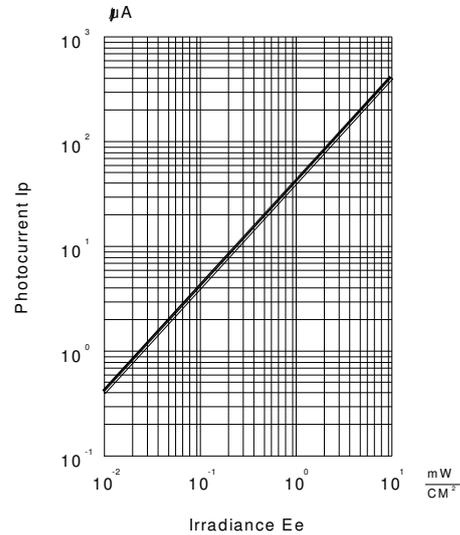


Fig.6 PHOTOCURRENT VS IRRADIANCE $\lambda= 940 \text{ nm}$

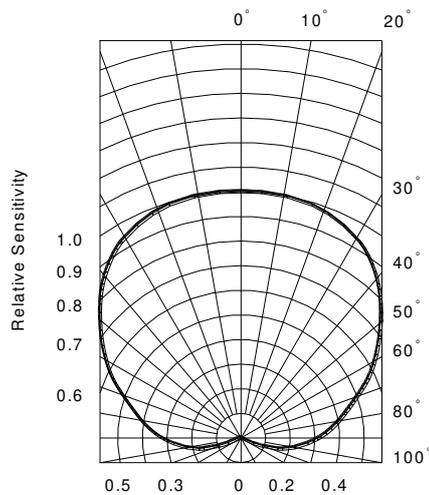


Fig.7 SENSITIVITY DIAGRAM

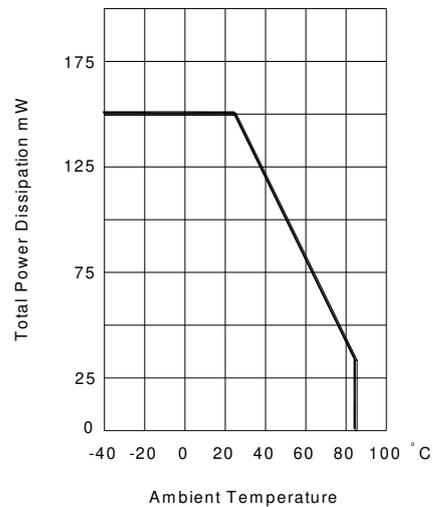


Fig.8 TOTAL POWER DISSIPATION VS AMBIENT TEMPERATURE