LITEON
OPTOELECTRONICS

IR Emitter and Detector

Product Data Sheet

LTR-536AD

Spec No.: DS-50-92-0089

Effective Date: 05/18/2010

Revision: C

LITE-ON DCC

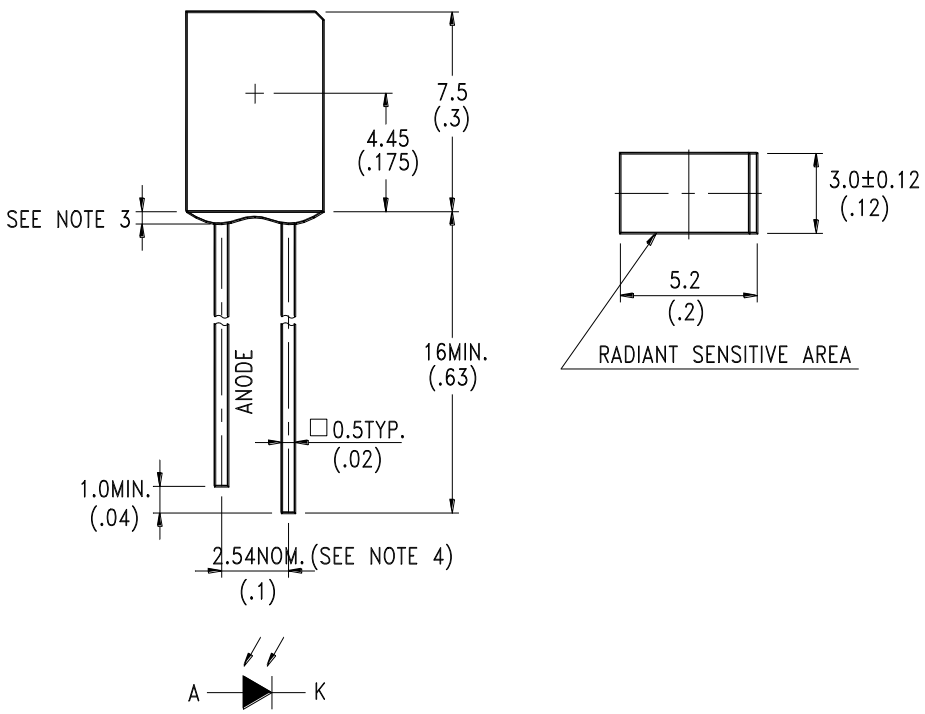
RELEASE

BNS-OD-FC001/A4

FEATURES

* HIGH PHOTO SENSITIVITY
* SUITABLE FOR INFRARED RADIATION
* LOW JUNCTION CAPACITANCE
* HIGH CUT-OFF FREQUENCY
* FAST SWITCHING TIME
* THE LTR-536AD IS A SPECIAL DARK GREEN PLASTIC PACKAGE THAT CUT THE VISIBLE LIGHT AND SUITABLE FOR THE DETECTORS OF INFRARED APPLICATIONS

PACKAGE DIMENSIONS



NOTES:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm(.010") unless otherwise noted.
3. Protruded resin under flange is 1.5mm(.059") 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℃

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

ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25℃

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Reverse Break Down Voltage	$V_{(BR)R}$	30			V	I_R = 100 μA Ee = 0mW/cm²
Reverse Dark Current Voltage	$I_{D(R)}$			30	nA	V_R = 10V Ee = 0mW/cm²
Open Circuit Voltage	V_{OC}		350		mV	λ = 940nm Ee = 0.5mW/cm²
Rise Time	Tr		50		nsec	V_R = 10V λ = 940nm R_L = 1KΩ
Fall Time	Tf		50		nsec	
Short Circuit Current	Is	1.7	2		μA	V_R = 5V λ = 940nm Ee = 0.1mW/cm²
Total Capacitance	C_T		25		P	V_R = 3V f = 1MHZ Ee = 0mW/cm²
Wavelength of the Max Sensitivity	λ_{SMAX}		900		nm	

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

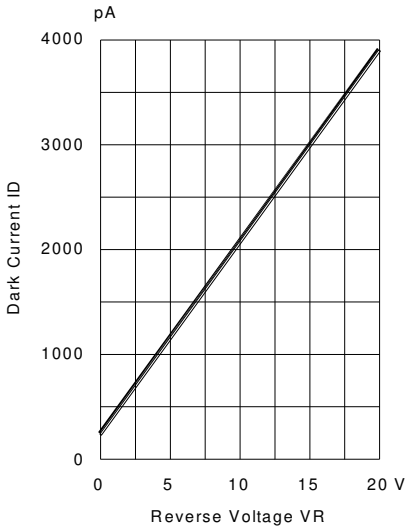


Fig.1 DARK CURRENT VS. REVERSE VOLTAGE
TA=25° C, Ee=0 mW/cm²

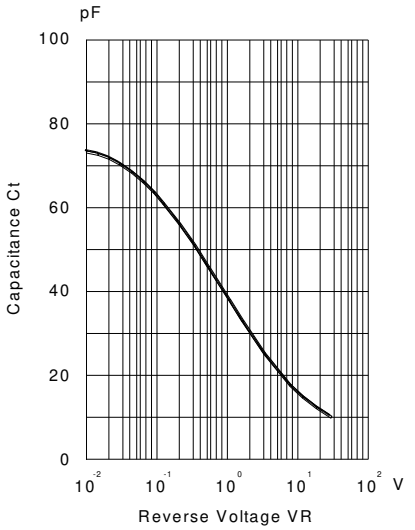


Fig.2 CAPACITANCE VS. REVERSE VOLTAGE
F=1MHZ; Ee=0mW/cm²

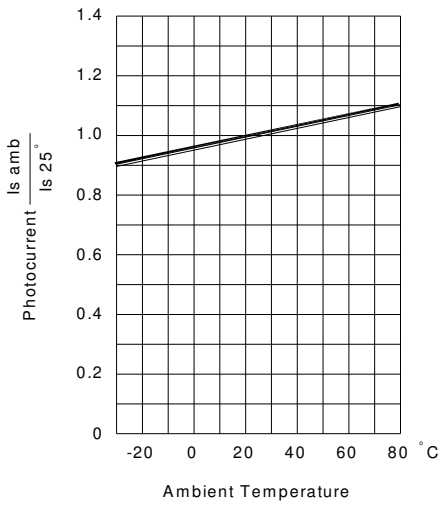


Fig.3 PHOTOCURRENT VS. AMBIENT TEMPERATURE

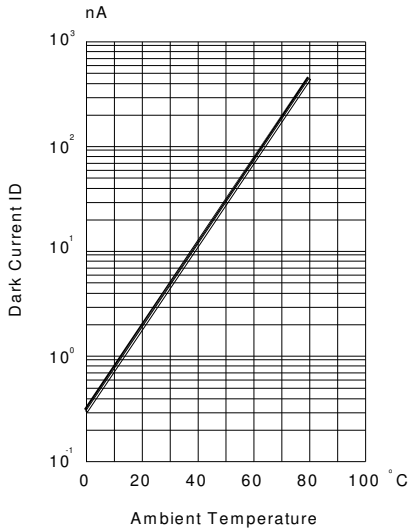


Fig.4 DARK CURRENT AMBIENT TEMPERATURE
VR=10, Ee=0mW/cm²

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

(25℃ Ambient Temperature Unless Otherwise Noted)

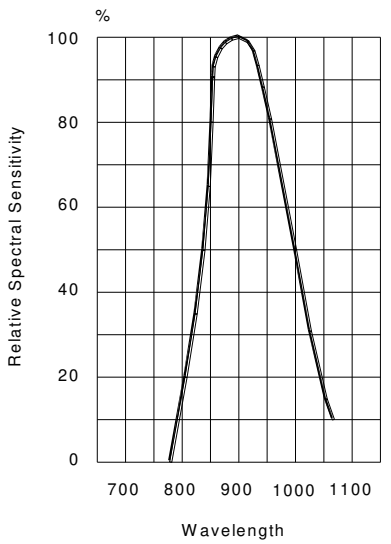


Fig.5 RELATIVE SPECTRAL SENSITIVITY VS WAVELENGTH

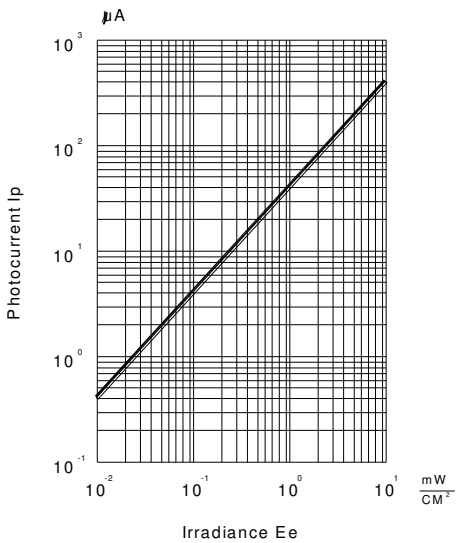


Fig.6 PHOTOCURRENT VS IRRADIANCE λ= 940 nm

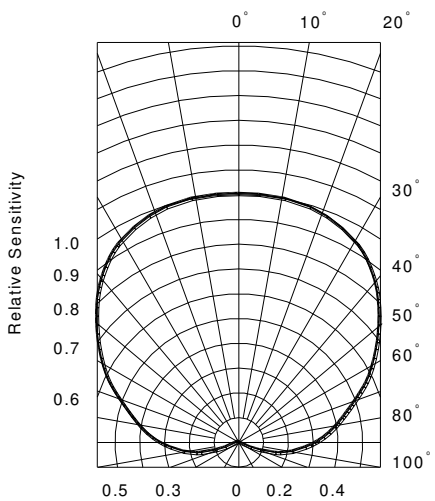


Fig.7 SENSITIVITY DIAGRAM

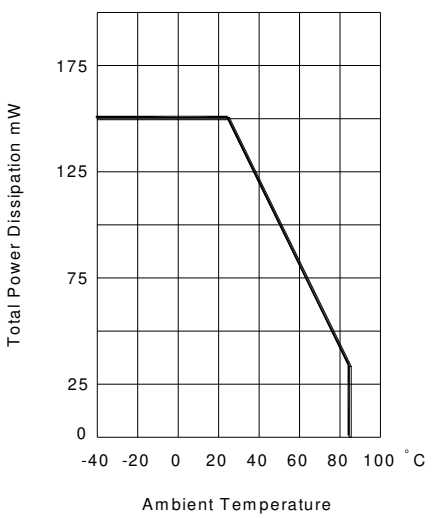


Fig.8 TOTAL POWER DISSIPATION VS AMBIENT TEMPERATURE