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Advanced Photonix, Inc. PDB-V443.6

For any questions, you can email us directly: <u>sales@integrated-circuit.com</u>

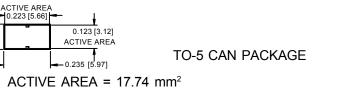


Distributor of Advanced Photonix, Inc. : Excellent Integrated System Limited Datasheet of PDB-V443.6 - PHOTO DETECTOR 436 W/ FILTER Contact us: sales@integrated-circuit.com Website: www.integrated-circuit.com

PHOTONIC Silicon Photodiode, Filter Combination Photovoltaic DETECTORS INC. (center wavelength 436 nm) Type PDB-V443.6



PACKAGE DIMENSIONS INCH [mm] EPOXY MARKING INK (WAVE LENGTH NO.) 0.365 [9.27] 0.355 [9.02]DIA -EPOXY COVERING + 0.005 [0.13] - 0.080 [2.03] 0.345 [8.76] 0.335 [8.51] 0.200 [5.08] DIA PIN CIRCLE 0.245 [6.22] 0.235 [5.97] DIA EYELET 0.500 [12.70] 0.020 [0.51] DIA WIRE BONDS ATHODE 0.330 [8.38] 0.320 [8.13] DIA 2 PLACES (CASE GROUND) 0.035 [0.89] **L**HEADER FILTER CAP SUBASSEMBLY 0.425 [10.80]



FEATURES

- 436 +/- 2 nm CWL
- 10 nm FWHM
- 45% transmission
- 10⁻⁴ rejection

DESCRIPTION

The **PDB-V443.6** is a silicon, PIN planar diffused, photodiode with a parrow band interference filter

applications. Packaged in a TO-5 metal can.

0.135 [3.43]

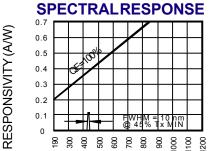
photodiode with a narrow band interference filter. The detector filter combination has a narrow 10 nm half bandwidth designed for low noise photovoltaic

APPLICATIONS

- Spectrophotometry
- Chemistry instrumentation
- Liquid chromatography

ABSOLUTE MAXIMUM RATING (TA=25°C unless otherwise noted)

SYMBOL	PARAMETER	MIN	MAX	UNITS
Vbr	Reverse Voltage		100	V
T _{STG}	Storage Temperature	-20	+85	°C
To	Operating Temperature Range	-15	+70	°C
Ts	Soldering Temperature*		+240	°C
Ι	Light Current		500	mA



WAVELENGTH(nm)

*1/16 inch from case for 3 secs max

ELECTRO-OPTICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
lsc	Short Circuit Current***	H = 100 fc, 2850 K	150	200		μ A
ΙD	Dark Current	H = 0, V _R = 10 mV		10	50	pА
Rsh	Shunt Resistance	H = 0, V _R = 10 mV	.20	2		GΩ
TC RSH	RsH Temp. Coefficient	H = 0, V _R = 10 mV		-8		%/℃
CJ	Junction Capacitance	H = 0, V _R = 10 V**		1700		pF
CWL	Center Wavelength	(CWL, λ o) +/- 2 nm		436		nm
HBW	Half Bandwidth	(FWHM)		10		nm
VBR	Breakdown Voltage	I = 10 μA	50	75		V
NEP	Noise Equivalent Power	V _R = 10 mV @ Peak		9x10⁻¹⁵		W/√ ^{Hz}
tr	Response Time	RL = 1 KΩ V _R = 10 V		1.0		μS

Information in this technical data sheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject to change without notice.**f=1 MHz, ***without filter [FORM NO. 100-PDB-V443.6 REV N/C]