

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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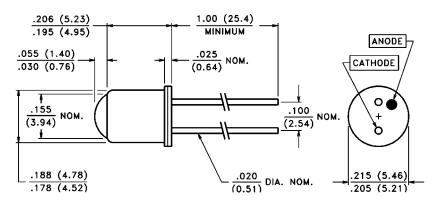


## **VTB Process Photodiodes**

# VTB1112H, 1113H



#### PACKAGE DIMENSIONS inch (mm)



CASE 19 TO-46 LENSED HERMETIC CHIP ACTIVE AREA: .0025 in<sup>2</sup> (1.60 mm<sup>2</sup>)

#### PRODUCT DESCRIPTION

Small area planar silicon photodiode in a lensed, dual lead TO-46 package. Cathode is common to the case. These diodes have very high shunt resistance and have good blue response.

#### **ABSOLUTE MAXIMUM RATINGS**

Storage Temperature: -40°C to 110°C

Operating Temperature: -40°C to 110°C

### **RoHS Compliant**



## ELECTRO-OPTICAL CHARACTERISTICS @ 25°C (See also VTB curves, pages 13-14)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB1112H			VTB1113H			UNITS
			Min.	Тур.	Max.	Min.	Тур.	Max.	UNITS
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	30	60		30	60		μΑ
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.12	.23		.12	.23	%/°C
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		490			490		mV
TC V <sub>OC</sub>	V <sub>OC</sub> Temperature Coefficient	2850 K		-2.0			-2.0		mV/°C
I <sub>D</sub>	Dark Current	H = 0, VR = 2.0 V			100			20	pA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		.25			7.0		GΩ
TC R <sub>SH</sub>	R <sub>SH</sub> Temperature Coefficient	H = 0, V = 10 mV		-8.0			-8.0		%/°C
$C_{J}$	Junction Capacitance	H = 0, V = 0		.31			.31		nF
S <sub>R</sub>	Sensitivity	365 nm		.19			.19		A/W
$\lambda_{range}$	Spectral Application Range		320		1100	320		1100	nm
$\lambda_{p}$	Spectral Response - Peak			920			920		nm
$V_{BR}$	Breakdown Voltage		2	40		2	40		V
$\theta_{1/2}$	Angular Resp 50% Resp. Pt.			±15			±15		Degrees
NEP	Noise Equivalent Power		3.0 x 10 <sup>-14</sup> (Typ.)			5.9 x 10 <sup>-15</sup> (Typ.)			W∕√ <del>Hz</del>
D*	Specific Detectivity		4.2 x 10 <sup>12</sup> (Typ.)			2.1 x 10 <sup>13</sup> (Typ.)			cm√Hz/W