### **VTB Process Photodiodes**

### VTB100AH

CATHODE NOTCH



### PRODUCT DESCRIPTION

Planar silicon photodiode in a clear molded plastic sidelooker package suitable for assembly onto printed circuit boards. These diodes have very high shunt resistance and have good blue response.

# Pb

# CASE 52 FLAT SIDELOOKER CHIP ACTIVE AREA: 0.011in<sup>2</sup> (7.1mm<sup>2</sup>)

PACKAGE DIMENSIONS (inch)

0.065

.025 MAX. MENISCUS

.03 NO SOLDER

1.00

#### **ABSOLUTE MAXIMUM RATINGS**

Storage Temperature:  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ Operating Temperature:  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ 

Phone: 450-424-3300 Fax: 450-424-3413

## RoHS Compliant

### ELECTRO-OPTICAL CHARACTERISTICS @ 25 °C (See also VTB curves, pages 21-22)

SYMBOL	CHARACTERISTIC	TEST CONDITIONS	VTB100H			UNITS
			Min.	Тур.	Max.	UNITS
I <sub>SC</sub>	Short Circuit Current	H = 100 fc, 2850 K	50	65		μΑ
TC I <sub>SC</sub>	I <sub>SC</sub> Temperature Coefficient	2850 K		.12	.23	%/℃
V <sub>OC</sub>	Open Circuit Voltage	H = 100 fc, 2850 K		350		mV
TC V <sub>OC</sub>	V <sub>OC</sub> Temperature Coefficient	2850 K		-2.0		mV/℃
I <sub>D</sub>	Dark Current	H = 0, V <sub>R</sub> = 10 V		225	500	pA
R <sub>SH</sub>	Shunt Resistance	H = 0, V = 10 mV		.15		GΩ
TC R <sub>SH</sub>	R <sub>SH</sub> Temperature Coefficient	H = 0, V = 10 mV		-8.0		%/℃
CJ	Junction Capacitance	H = 0, V = 0		0.097	2	nF
S <sub>R</sub>	Sensitivity	365 nm		.1		A/W
λ <sub>range</sub>	Spectral Application Range		320		1100	nm
$\lambda_{p}$	Spectral Response - Peak			920		nm
V <sub>BR</sub>	Breakdown Voltage			140		V
θ <sub>1/2</sub>	Angular Resp 50% Resp. Pt.			±70		Degrees
NEP	Noise Equivalent Power			1.8 x 10 <sup>-13</sup> (Typ.)		W//Hz
D*	Specific Detectivity		1.05 x 10 <sup>13</sup> (Typ.)			cm /Hz/W