

Features

- 3 Channel Photologic Array with adjustable Sensitivity
- Available with mounted reticle or custom design mask

Application

- Optical Encoders, 3-channel light-activated switch



Absolute Maximum Ratings

Operating Temperature	-25 °C to +85 °C
Supply Voltage	4.5 V to 18.0 V
Optical Release Point	300.0 nW

Electrical Characteristics

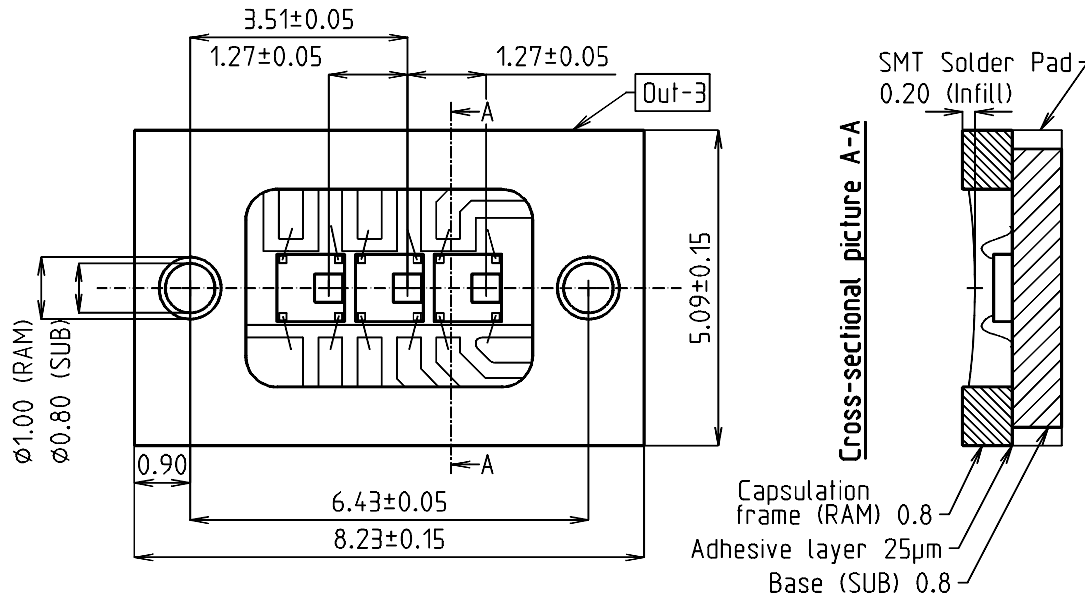
(V_{CC} = 5.0 V, T_A = 25 °C, unless otherwise noted)

Parameters	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Output High-Level Voltage	V _{OH}	16.5	17.0		V	V _{CC} = 18.0 V, I _{OL} = 100.0 µA
Output Low-Level Voltage	V _{OL}		290.0	400.0	mV	V _{CC} = 4.5 V, I _{OL} = 16.0 mA
Supply current		1.4	1.9	2.6	mA	V _{CC} = 5.0 V
Trim voltage (3)		0.0		0.7	V	
Positive going threshold level		300.0	400.0	600.0	nW	
Supply Current		1.4	1.9	2.6	mA	V _{CC} = 5.0 V
		3.0	4.1	5.5	mA	V _{CC} = 18.0 V
Pull-up resistor		7.5	10.0	13.0	kΩ	
Trim resistor		0.0		∞	kΩ	
Hysteresis ratio		1.2	1.33	1.5		
output rise time	t _R		500.0		ns	C _L = 15.0 pF
output fall time	t _F		14.0		ns	C _L = 15.0 pF
Photo Parameter						
t _P dark light			2.1		µs	20% overdrive
t _P light dark			3.5		µs	4000% overdrive

Note:

1. Photodiode is either dark or illuminated with 700 nW, depending on output state specified.
2. For AC measurements, LED rise time is 700 ns.
3. Instead of using a resistor for the sensitivity adjust, the chip can be programmed by an external voltage from 0 V to 0.7 V. For maximum sensitivity the trim pin can be left open.
4. Blocking C = 100 nF between V_{CC} and GND close to the device is necessary.

Top View



Bottom View

