

## Marking information



 : Die stamp marking

 : Ink stamp marking

## Date code (2 digit)

1st digit		2nd digit	
Year of production		Month of production	
A.D.	Mark	Month	Mark
2000	0	1	1
2001	1	2	2
2002	2	3	3
2003	3	4	4
2004	4	5	5
2005	5	6	6
2006	6	7	7
2007	7	8	8
2008	8	9	9
2009	9	10	X
2010	0	11	Y
:	:	12	Z

repeats in a 10 year cycle

## Country of origin

Philippines

## ■ Absolute Maximum Ratings

(T<sub>a</sub>=25°C)

Parameter	Symbol	Rating	Unit
Supply voltage	V <sub>CC</sub>	-0.3 to +7	V
*1 Input terminal voltage	V <sub>LED</sub>	-0.3 to V <sub>CC</sub>	V
Operating temperature	T <sub>opr</sub>	-10 to +65	°C
Soldering temperature	T <sub>sol</sub>	-20 to +80	°C

\*1 Open drain drive input

## ■ Electro-optical Characteristics

(T<sub>a</sub>=25°C, V<sub>CC</sub>=5V)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Sensitivity	K	*1 *2 *3	0.35	0.5	0.65	V/(0.1mg/m <sup>3</sup> )
Output voltage at no dust	V <sub>OC</sub>	*2 *3	0	0.9	1.5	V
Output voltage range	V <sub>OH</sub>	*2 *3 R <sub>L</sub> =4.7kΩ	3.4	—	—	V
LED terminal current	I <sub>LED</sub>	*2 LED terminal voltage = 0	—	10	20	mA
Consumption current	I <sub>CC</sub>	*2 R <sub>L</sub> =∞	—	11	20	mA

\*1 Sensitivity is specified by the amount of output voltage change when dust density changes by 0.1 mg/m<sup>3</sup>.

And the dust density for detection is a value of the density of cigarette (MILD SEVEN®) smoke measured by the digital dust monitor (P-5L2: manufactured by SHIBATA SCIENTIFIC TECHNOLOGY LTD.).

\*2 Input condition is shown in Fig. 1

\*3 Output sampling timing is shown in Fig. 2

## ■ Recommended input condition for LED input terminal

Parameter	Symbol	Value	Unit
Pulse Cycle	T	10 ± 1	ms
Pulse Width	P <sub>w</sub>	0.32 ± 0.02	ms
Operating Supply voltage	V <sub>CC</sub>	5 ± 0.5	V