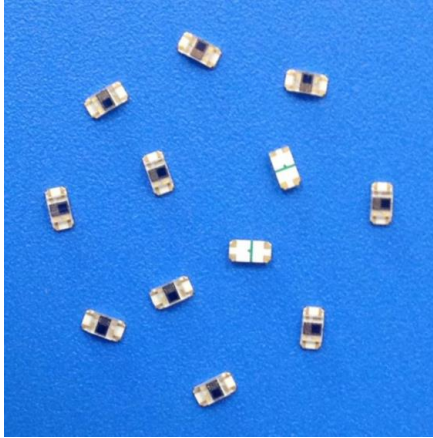


PHOTO IC

OSC1829



Description

The OSC1829 is monolithic integrated circuits incorporating A photodiode, linear preamplifier, comparator, schmitt trigger for hysteresis and pulse shaping, and digital output under disturbance background light.

Features

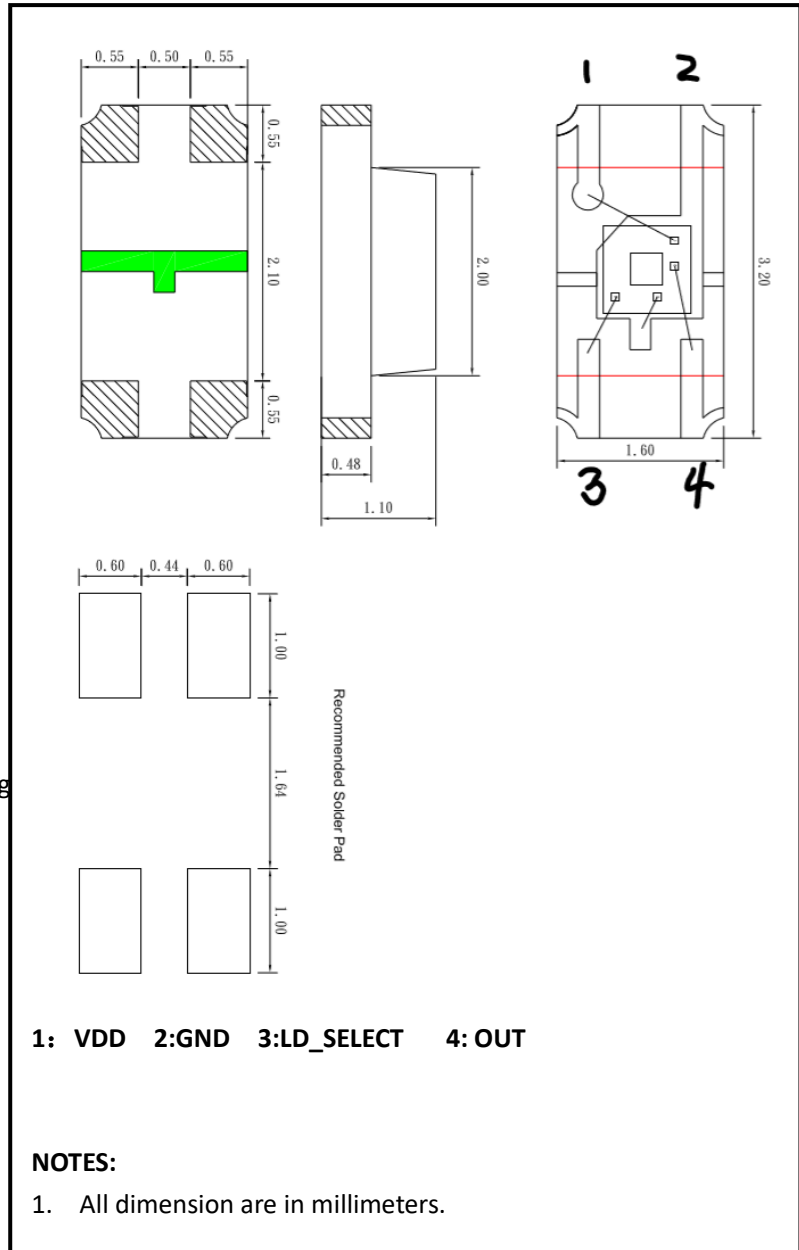
- * Asynchronous detection
- * Allowable background illuminance: 2000 lx Min.
- * Light detection level: 0.4 uW/mm² Typ.
- * Digital output

Applications

- *Optical switch

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Supply Voltage	Vcc	4.5		5.5	V
Operating Temperature	Topr	-25		+60	°C
Storage Temperature	Tstg	-40		+100	°C



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

OTRON ELECTRONIC TECHNOLOGY CO., LTD

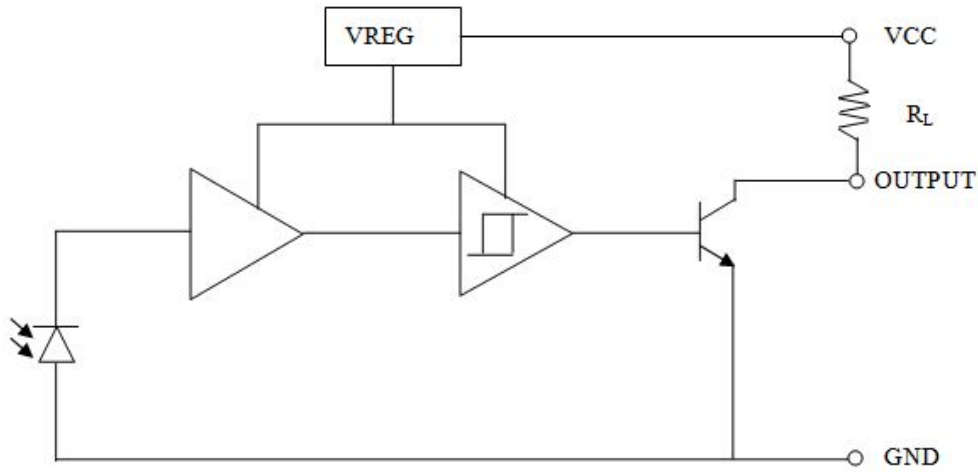
TEL:+86-21-54971821

FAX:+86-21-54971823

EMAIL: frank.shuai@e-otron.com

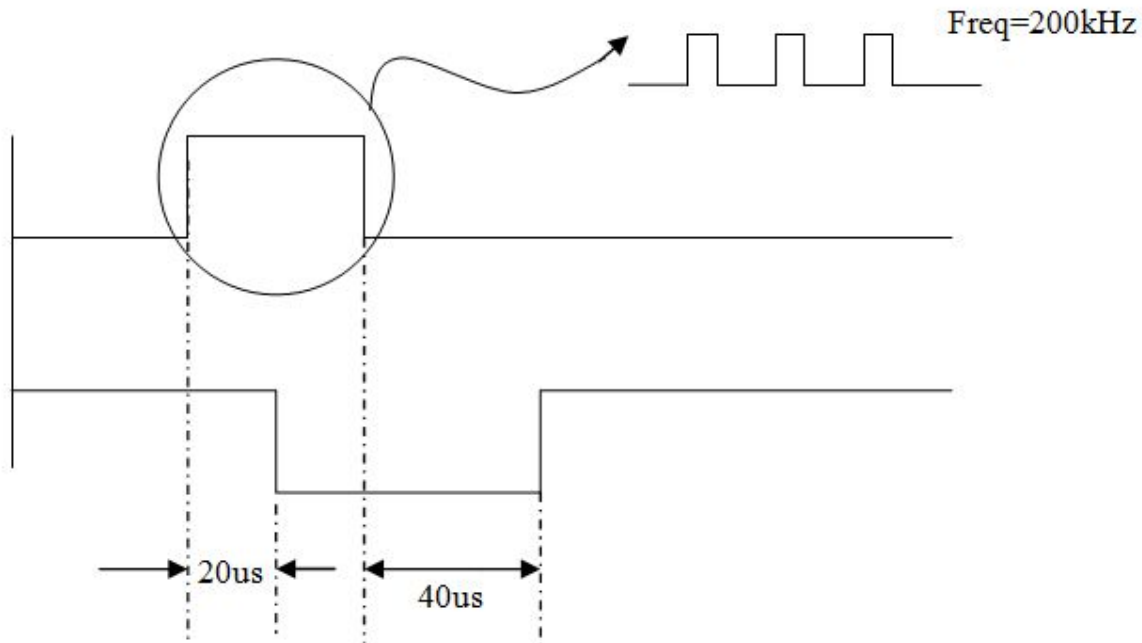
<http://www.e-otron.com>

Application Diagram:



* RL: External Resistance

Response chart:



Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice

OTRON ELECTRONIC TECHNOLOGY CO., LTD

TEL:+86-21-54971821

FAX:+86-21-54971823

EMAIL: frank.shuai@e-otron.com

<http://www.e-otron.com>

Electrical and Optical characteristics ($V_{CC}=5.0V$, $T_a=25^{\circ}C$)

Parameter		Symbol	Condition	Index			Unit
				Min.	Typ.	Max.	
Operation Supply Voltage		V_{CC}	-	4.5		5.5	V
Supply current		I_{CC}	Terminals shall be opened	-	-	4	nA
Output	Low level output	V_{OL}	$I_{OL}=16mA$	-	-	0.35	V
	High Level output	V_{OH}	1k Ω between V_{CC} and V_o	4.9	-	-	V
	Low Level current	I_{oL}	-	-	-	16	nA
"Low"→"High" threshold irradiance		E_{epLH}	LED $\lambda_p=940nm$	-	0.4	2.66	$\mu W/mm^2$
"High"→"Low" threshold irradiance		E_{epHL}	LED $\lambda_p=940nm$		0.4	2.80	$\mu W/mm^2$
Hysteresis		E_{HRS}	-	0.45	-	0.95	-
B.P.F center frequency		f_c	-	-	200	-	kHz
Frequency Response		f_0	-	40	-	300	kHz
Spectral response sensitivity		λ	-	400	-	1100	nm
Peak wavelength		λ_p	-		850		nm
Response time	"Low"→"High" Propagation delay time	t_{PLH}	$V_{CC}=5V, R_L=1K\Omega$	-	-	40	μS
	"High"→"Low" Propagation delay time	t_{PHL}	$V_{CC}=5V, R_L=1K\Omega$	-	-	20	μS
External disturbing light illuminance		-	$E_{ep}=7.5\mu W/mm^2, \lambda_p=940nm$	2000	-	-	lx

Information in this technical datasheet is believed to be correct and reliable. However, no responsibility is assumed for possible inaccuracies or omission. Specifications are subject change without notice