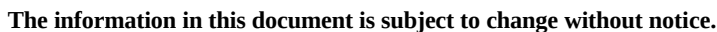


Description

Pin Configurations



- ### Block Diagram



Absolute Maximum Ratings ($T_a=25^\circ\text{C}$; unless otherwise noted)

Characteristics	Pin	Symbol	Value	Unit
Power Supply Voltage	1	VCC	6	Vdc
Storage Temperature Range	-	Tstg	-40 to +125	$^\circ\text{C}$

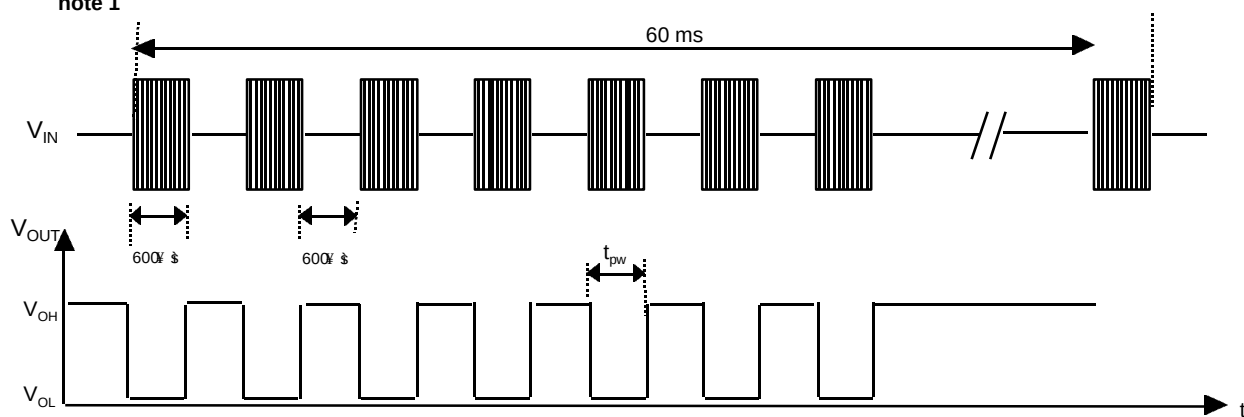
Recommended Operating Condition

Characteristics	Pin	Symbol	Value	Unit
Operating Supply Voltage	1	VCC	4.5 to 5.5	Vdc
Operating Temperature Range	-	T_a	0 to 70	$^\circ\text{C}$

Electrical Characteristics ($V_{CC}=5\text{V}$, $T_a=25^\circ\text{C}$; $f_{\text{oper}}=38\text{kHz}$, unless otherwise noted)

Characteristics	Symbol	Conditions	MIN	TYP	MAX	Unit	REMARK
Operating Supply Current	I_{CC}	No Signal	0.3	0.7	1.7	mA	
Input Voltage	V_{IN}	$I_{IN} = 0\text{A}$ $I_{IN} = -330\mu\text{A}$	3.6 0.8	4.1 1.3	4.6 1.8	V	
Voltage Gain	Av_max	$V_{IN} = 30\text{mV}_{p-p}$ Pin2=1.5V	80	-	110	dB	
	Av_min	$V_{IN} = 30\text{mV}_{p-p}$ Pin2=2.5V	40	-	80	dB	
BPF Bandwidth (-3dB)	f_{BW}	$V_{IN} = 30\text{mV}_{p-p}$	-	5	-	kHz	
Output Pulse Width	tpw1	$f_{IN} = 38\text{kHz}_{\text{burst}}$ $V_{IN} = 500\text{mV}_{p-p}$	440	600	770	μs	note 1
	tpw2	$f_{IN} = 38\text{kHz}_{\text{burst}}$ $V_{IN} = 50\text{mV}_{p-p}$	440	600	770		
Low Level Output Voltage	V_{OL}	-	-	0.2	0.4	V	
High Level Output Voltage	V_{OH}	-	4.8	5.0	-	V	

note 1



Pin Descriptions

No	Symbol	Description	
1	VCC	Supply vtg.	Supply voltage of 5V; $\pm 10\%$
2	C _{AGC}	AGC cap.	AGC capacitor connected.
3	OUT	Output	Open collector output with pull-up resistance. Active low output.
4	DGND	Ground	Input stage, Variable amp, AGC, BPF ground
5	IN	Input	Input connection for photodiode with bias voltage
6	AGND	Ground	Output stage ground
7	NC	-	-
8	NC	-	-

Application Circuit

