

Product List

OB3Z12A

Description

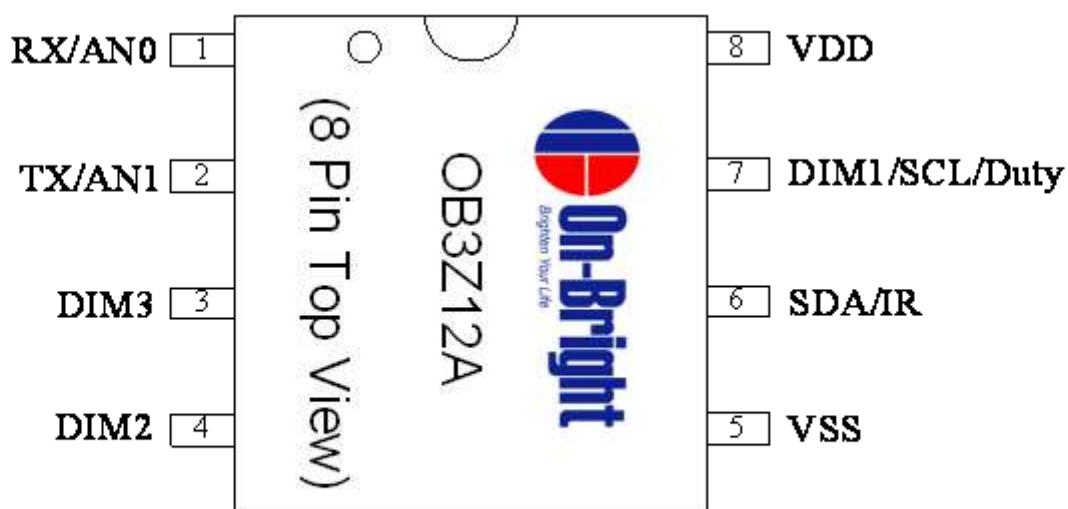
The OB3Z12A is a LED lighting controller. It has hardware dimming mechanism supporting up to 3-channel dimming control. The control interfaces include Liner DC, VR, Key/Button, PWM duty and IR, various digital and analog diming control methods. The OB3Z12A equips with serial communication interfaces for inter-connection to host or remote controllers. The on-chip non-volatile memory contains the system preset parameters and configurations.

Features

- Operating Voltage: 4.5V ~ 5.5V
- 3-ch PWM dimming control output
- 1 analog VR dimming control input
- 1 analog DC-in dimming control input
- 1 digital PWM duty dimming control input
- 1 digital IR remote dimming control input
- Serial interfaces: UART, I2C.
- Package type: 8-SOP.

Pin Configuration

8-SOP



Pin Description

Pin	Symbol	I/O	Description				
1	RX/AN0	I	VR, analog diming control input. Serial Receiver Input				
2	TX/AN1	I/O	Liner analog diming control input. Serial Transmitter Output				
3	DIM3	O	PWM dimming output ch-3				
4	DIM2	O	PWM dimming output ch-2				
5	VSS	I	Power supply				
6	SDA/IR	I/O	I2C Data. IR input				
7	DIM1/SCL/Duty	I/O	I2C Clock. PWM dimming output ch-1. Duty dimming control input				
8	VDD	I	Power Supply				

Operating Conditions

Symbol	Description	Min.	Typ.	Max.	Unit.	Remarks
TA	Operating temperature	-40	25	85	°C	Ambient temperature under bias
VDD	Supply voltage	4.5		5.5	V	

DC Characteristics

T_A = -40°C to 85°C, V_{dd} = 5.0V

Symbol	Parameter	Valid	Min	Max	Units	Conditions
VIL1	Input Low-voltage	DIMx, SDA,SCL,Tx,Rx	-0.5	0.8	V	Vdd=5V
VIH1	Input High-voltage	DIMx, SDA,SCL,Tx,Rx	2.0	V _{CC} + 0.5	V	
VOL	Output Low-voltage	DIMx, SDA,SCL,Tx,Rx		0.4	V	IOL=4.9mA
VOH1	Output High-voltage using Strong Pull-up	DIMx, SDA,SCL,Tx,Rx	90% V _{CC}		V	IOH= -4.6mA
			2.4		V	IOH= -14mA
VOH2	Output High-voltage using Weak Pull-up	DIMx, SDA,SCL,Tx,Rx	2.4		V	IOH= -250uA
III	Logic 0 Input Current	DIMx, SDA,SCL,Tx,Rx		-75	uA	Vin= 0.45V
ITL	Logical Transition Current	DIMx, SDA,SCL,Tx,Rx		-650	uA	Vin= 2.0V
ILI	Input Leakage Current	DIMx, SDA,SCL,Tx,Rx		±10	uA	0.45V < Vin < Vcc
ICC	Power Supply Current	VDD		5	mA	Vdd =5V 25 °C

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