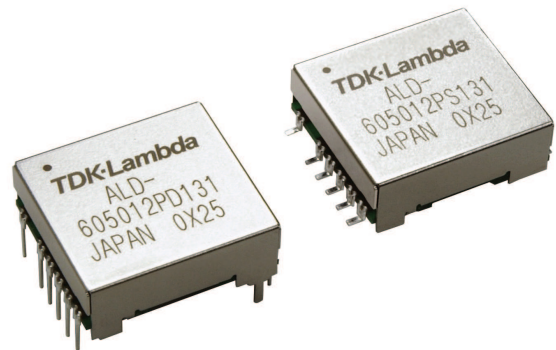


## 1 to 6 output LED Backlighting DC-DC Converter

### Features

- ◆ One to Six Strings in One Package
- ◆ 12VDC Input
- ◆ Analog, Resistive, or PWM Dimming
- ◆ Small Size
- ◆ Through Hole or Surface Mount
- ◆ Off the shelf solution



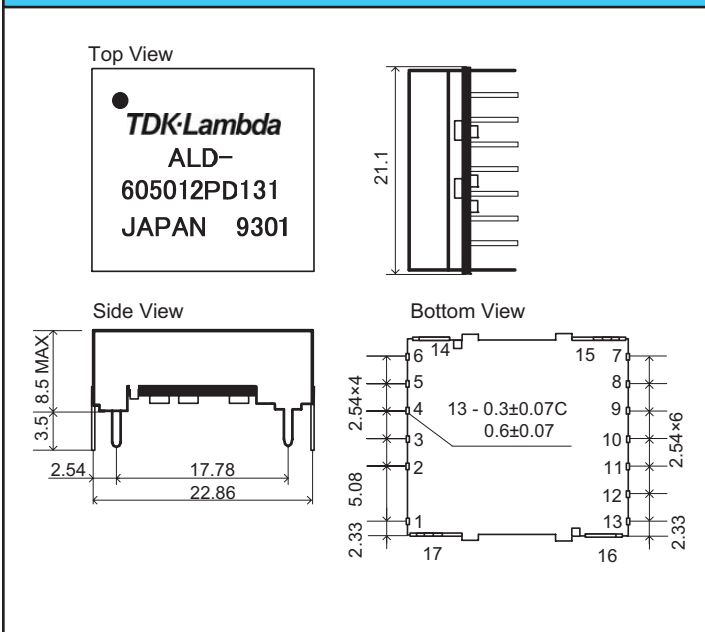
### Key Market Segments & Applications



Specifications		
Model	Through Hole Version: ALD-605012PD131 Surface Mount Version: ALD-605012PS131	
Number of LED Strings	-	1, 2, 3 or 6 (user paralleable)
DC Input	VDC	10.8 - 13.2VDC
Input Curr. Max. (normal/inhibited)	A	1.4 / 0.001
Output Current (each string)	mA	50mA (300mA if all 6 strings are paralleled)
PWM Dimming Frequency	Hz	230Hz
PWM Dimming	V	0 to 3.3V
Analog Dimming (Dark-Light) Vbr	VDC	1.6V to 3.8V
Analog Dimming (Dark-Light) Rbr	kΩ	1 to 10kΩ
Remote On/Off (Vrmt)	VDC	OFF: 0V - 0.4V or floating, ON: 2.5V - Vin
Output Voltage	VDC	38V Maximum, +Vin + 2V Minimum
Overvoltage Alarm	-	5V if any one string is open
Operating Temperature	°C	-30 to +80°C (See page 2 for derating curves)
Storage Temperature	°C	-40 to +85°C
Max. Humidity (non condensing)	%RH	95%RH (Storage or Operating)
Cooling	-	Convection
Input to Output Isolation	-	None
Vibration	-	588m/s <sup>2</sup> (60G) 11ms Half-sine waveonce each axis X,Y,Z,-X,-Y,-Z total 6 times
Shock	-	5~10Hz Amplitude 10mm10~200Hz Accelerated Velocity 21.6m/s <sup>2</sup> (2.2G)
Weight (Typ)	g	5.5g
Size (LxWxH)	mm	22.86 x 21.1 x 8.5mm (8.8mm SMT version)
Warranty	Yr	One Year

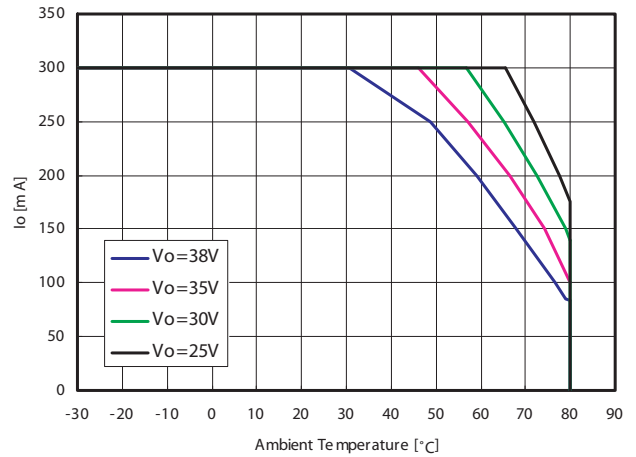
Note: See Installation Manual for full details, test methods of parameters and application notes

## Outline Drawing (Through Hole Version)



## Derating Curves

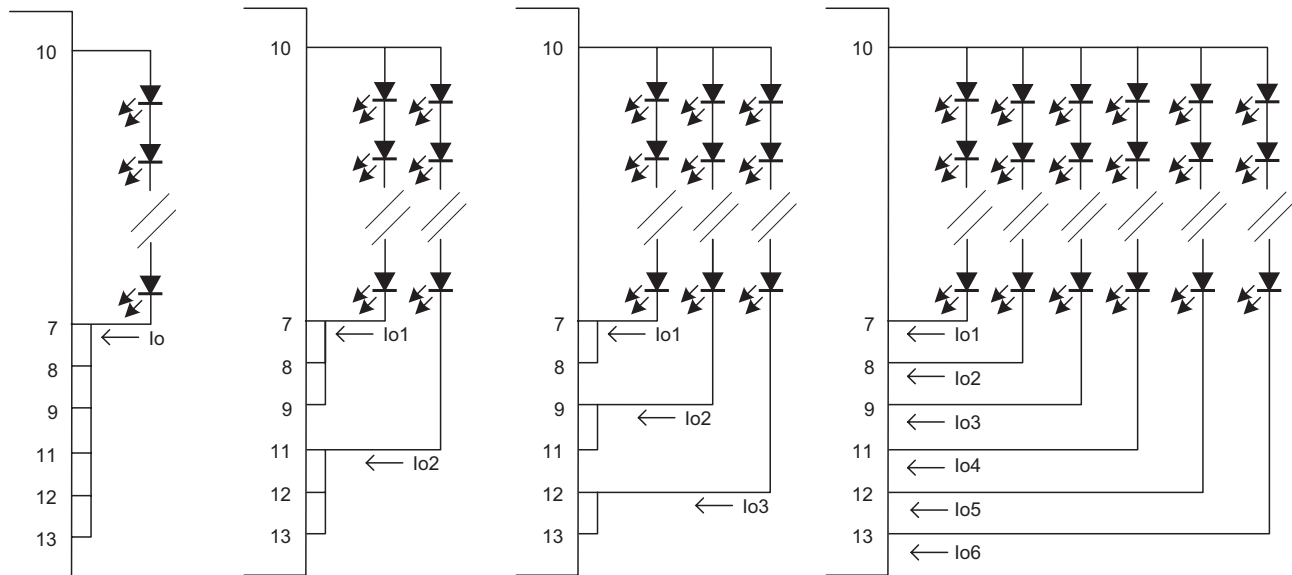
The following is derating curve of output current on our evaluation board.  
 $I_o$  = Total  $I_o$  current of CH1 ~ 6.



\*Attention : In the case of parallel connection, temperature rise of IC (point 'B') is higher if each string has varied voltage (total of forward voltage).

## Typical Applications

- One serial connection  $V_o$  : 38V max  $I_o$  : 300mA max
- Two serial connections  $V_o$  : 38V max  $I_{o1, 2}$  : 150mA max
- Three serial connections  $V_o$  : 38V max  $I_{o1, 2, 3}$  : 100mA max
- Six serial connections  $V_o$  : 38V max  $I_{o1, 2, 3, 4, 5, 6}$  : 50mA max



For Additional Information, please visit  
[us.tdk-lambda.com/lp/products/ald6-series.htm](http://us.tdk-lambda.com/lp/products/ald6-series.htm)

