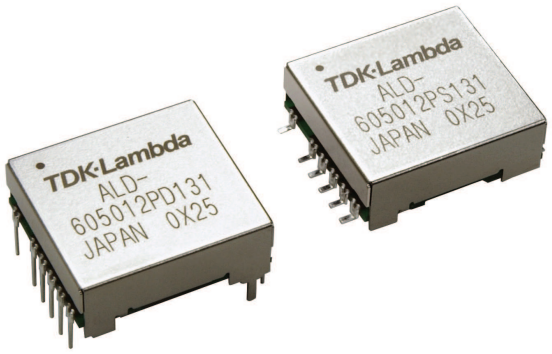
1 to 6 output LED Backlighting DC-DC Converter

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

Industrial Test COMM LED Railroad Broadcast

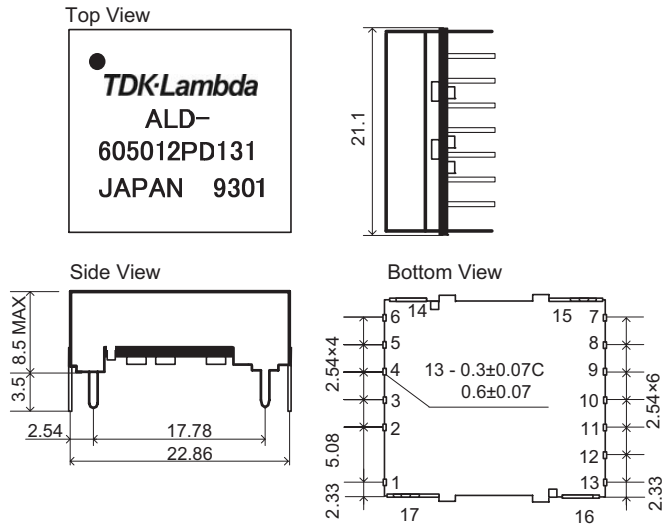
RoHS

Specifications

Model		Through Hole Version: ALD-605012PD131 Surface Mount Version: ALD-605012PS131
Number of LED Strings	-	1, 2, 3 or 6 (user parallelable)
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/s² (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/s²(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

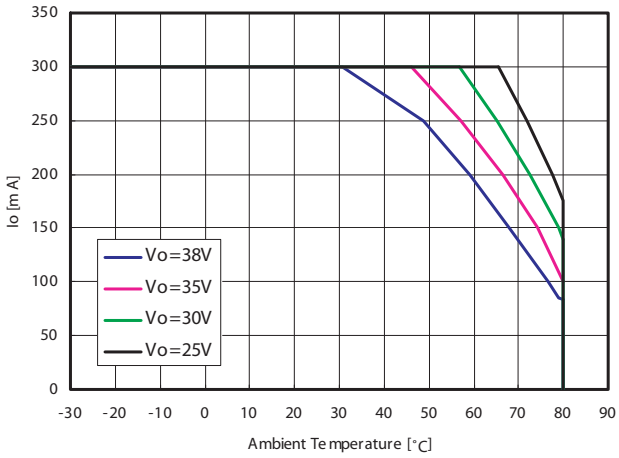
Note: See Installation Manual for full details, test methods of parameters and application notes

Outline Drawing (Through Hole Version)



Derating Curves

The following is derating curve of output current on our evaluation board.
Io=Total Io 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).

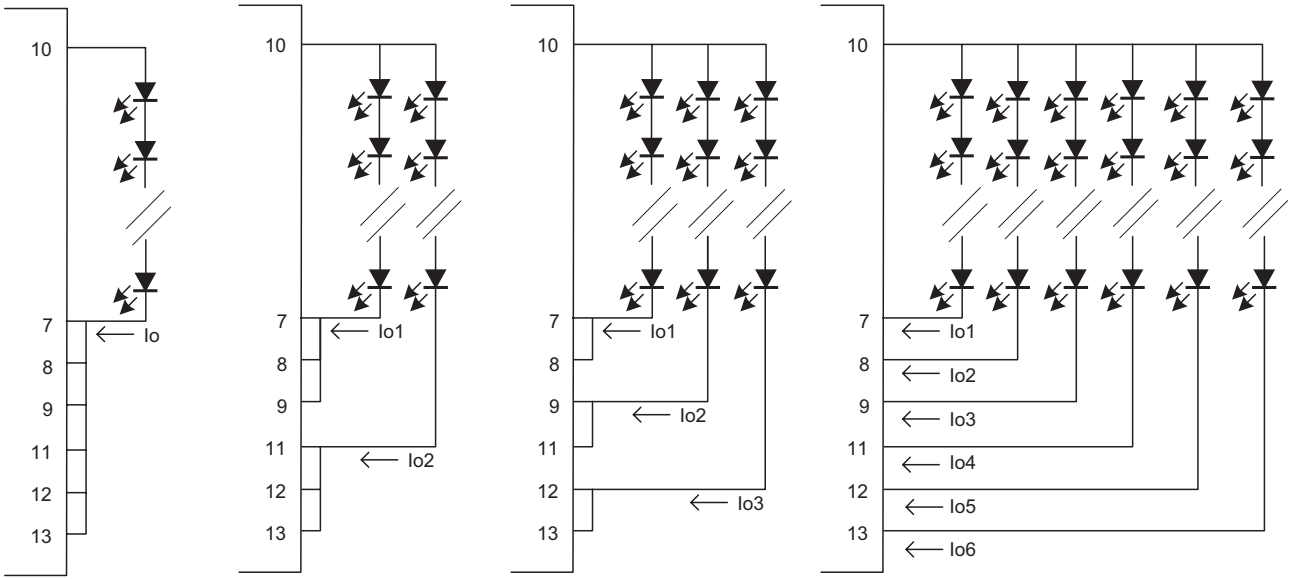
Typical Applications

● One serial connection
Vo : 38V max
Io : 300mA max

● Two serial connections
Vo : 38V max
Io1, 2 : 150mA max

● Three serial connections
Vo : 38V max
Io1, 2 , 3 : 100mA max

● Six serial connections
Vo : 38V max
Io 1, 2 ,3 ,4 ,5 ,6 : 50mA max



For Additional Information, please visit
us.tdk-lambda.com/lp/products/ald6-series.htm