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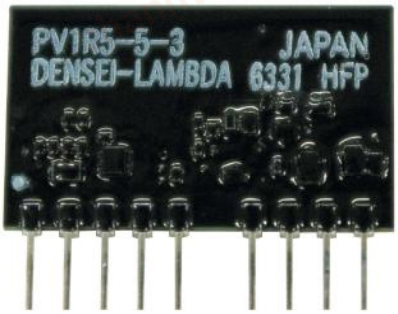
TDK·Lambda PV Series

Single Inline Package DC-DC Converters (1-3 Watts)

Features

- SIP style footprint
- 5V, 12V, 24V, & 48V Inputs
- Single and Dual Outputs
- Adjustable Output Voltages
- Input-Output Isolation
- Overcurrent Protection



Key Market Segments & Applications

Industrial COMM

Specifications

Model		3.3V	5V	12V
DC Input ranges	VDC	5V: 4.5V-9V; 12V: 9V-18V, 24V: 18V-36V, 48V: 36V-72		
Efficiency (typical)	-	77%		
Output Voltage Accuracy	-	±5%		
Output Voltage Adjustment	VDC	3.3V-3.67V	5V-6V	12V-15V
Preload	A	0		
Ripple & Noise	mV	100mV	120mV	
Max Line Regulation	mV	20mV		
Max Load Regulation	mV	40mV		
Overcurrent Protection	A	Auto recovery (1)		
Overvoltage Protection	%	None		
Temperature Coefficient	-	0.02%/°C		
Cooling	-	Convection cooled		
Isolation Voltage	VAC	Input-Output: 500VAC 1 min. (5mA)		
Isolation Resistance	Ohm	Greater than 100M		
Shock	-	20G		
Vibration	-	10-55Hz (sweep for 1 min.) 1.5mm constant amplitude max 9G X,Y,Z 2 hours each		
Humidity (non condensing)	-	30%-90% RH (non condensing)		
Storage Humidity	-	10%-95% RH (non condensing)		
Operating Temp. Range	-	-20 to 70°C, derate linearly to 50% load from 50 to 70°C		
Storage Temperature	°C	-30°C to +85°C		
Weight (Typ)	g	5g		
Size (LxWxH)	in	1.12x0.33x0.91(PV1R5); 1.29x0.33x1.29(PV3)		
Warranty	yrs	Two Years		

Note: See Installation Manual for full details, test methods of parameters and application notes
1) Avoid operation in short circuit or overload for more than 30 seconds

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Model Selector

Model	Output Voltage (V)	Output Current (A)	Output Power (W)	Input Voltage (V)
Single Output				
PV1R5-5-3.3	3.3	0.4	1.3	5.0
PV1R5-48-3.3	3.3	0.4	1.3	48.0
PV3-5-3.3	3.3	0.6	2.0	5.0
PV3-48-3.3	3.3	0.6	2.0	48.0
PV1R5-5-5	5.0	0.3	1.5	5.0
PV1R5-12-5	5.0	0.3	1.5	12.0
PV1R5-24-5	5.0	0.3	1.5	24.0
PV1R5-48-5	5.0	0.3	1.5	48.0
PV3-5-5	5.0	0.6	3.0	5.0
PV3-12-5	5.0	0.6	3.0	12.0
PV3-24-5	5.0	0.6	3.0	24.0
PV3-48-5	5.0	0.6	3.0	48.0
PV1R5-5-12	12.0	0.125	1.5	5.0
PV3-5-12	12.0	0.25	3.0	5.0
Dual Outputs				
PVD1R5-5-1212	±12.0	0.06	1.44	5.0
PVD1R5-12-1212	±12.0	0.06	1.44	12.0
PVD1R5-24-1212	±12.0	0.06	1.44	24.0
PVD1R5-48-1212	±12.0	0.06	1.44	48.0
PVD3-5-1212	±12.0	0.125	3.0	5.0
PVD3-12-1212	±12.0	0.125	3.0	12.0
PVD3-24-1212	±12.0	0.125	3.0	24.0
PVD3-48-1212	±12.0	0.125	3.0	48.0

Pinout

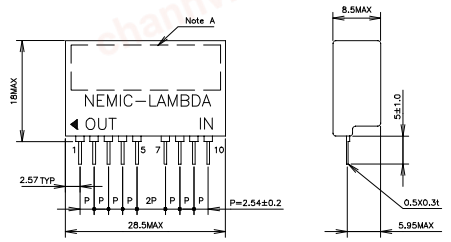
Pin Description	Function
-Vin	Negative Input Terminal
+Vin	Positive Input Terminal
+Vout	Positive Output Terminal
-Vout	Negative Output Terminal
NC	No connection
COM	Common
TRM	Trim

Other DC-DC Products

X	10 - 20W, 24 & 48V input DC-DC converters
SX	Surface Mount 20W, 24 & 48V input DC-DC converters
PC	1.5 - 6W, 5V, 12V, 24V & 48V input DC-DC converters

For Additional Information, please visit
https://product.tdk.com/info/en/products/power/index.html

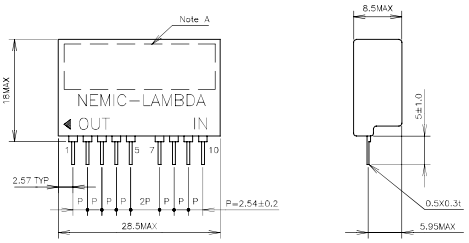
Outline Drawing



Pin assign
1 : +Vout 5 : TRM
2,3 : NC 7,8 : −Vin
4 : −Vout 9,10 : +Vin

Note A : Indicate of model name, lot No. and country of manufacture.

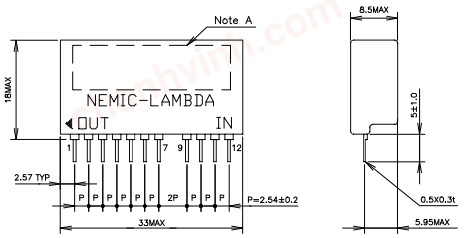
PV1R5



Pin assign
1 : +Vout 5 : TRM
2,3 : COM 7,8 : −Vin
4 : −Vout 9,10 : +Vin

Note A : Indicate of model name, lot No. and country of manufacture.

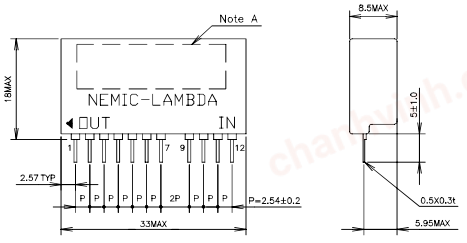
PVD1R5



Pin assign
1,2 : +Vout 7 : TRM
3,4 : NC 9,10 : −Vin
5,6 : −Vout 11,12 : +Vin

Note A : Indicate of model name, lot No. and country of manufacture.

PV3



Pin assign
1,2 : +Vout 7 : TRM
3,4 : COM 9,10 : −Vin
5,6 : −Vout 11,12 : +Vin

Note A : Indicate of model name, lot No. and country of manufacture.

PVD3