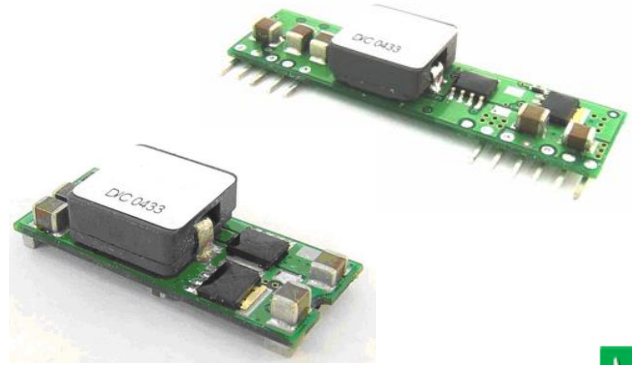




12 – 80 Watt SIP&SMT Packages Point Of Load DC/DC Converters Serie DVO-SIPSMT16-12

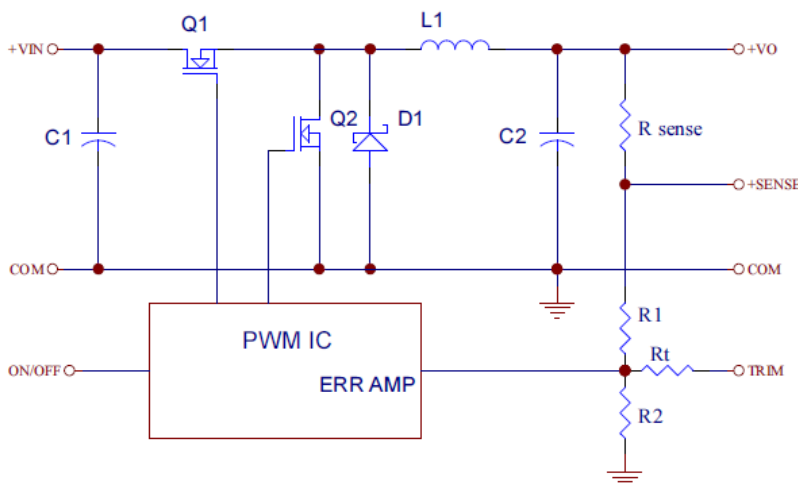


Features

- 0,75 – 5,0 VDC Wide Output Range
- Non-Isolated Output
- High Efficiency to 94%
- 9,0 – 14,0 VDC Input Range
- 16 Amp SIP & SMT Packages
- Over Temperature Protection
- Continuous Short Circuit Protection
- Remote ON/OFF
- 300KHz Switching Frequency
- UL/C-UL60950

MODEL NUMBER	INPUT VOLTAGE [VDC]	OUTPUT VOLTAGE RANGE [VDC]	OUTPUT VOLTAGE [VDC]	OUTPUT CURRENT [A]	INPUT CURRENT NO LOAD [mA]	INPUT CURRENT FULL LOAD [mA]	EFF. [%]	TYPE
DVO12-5,0SA16SA DVSO12-5,0SA16A	9,0 – 14,0	0,75 – 5,0	0,75	16	40	1299	77	SIP SMT
			1,2	16	50	1928	83	
			1,5	16	50	2326	86	
			1,8	16	60	2727	88	
			2,0	16	60	2996	89	
			2,5	16	65	3704	90	
			3,3	16	75	4783	92	
5,0	16	75	7092	94				

NOTE: 1. Nominal Input Voltage 12 VDC



Vo,set (V)	Rtrim (KΩ)
0.75	Open
1.2	22.33
1.5	13.0
1.8	9.0
2.0	7.4
2.5	5.0
3.3	3.12
5.0	1.47

Table 1. External Resistor Values for programming output voltage

Figure 1. Simplified Schematic

INPUT SPECIFICATIONS:

Input Voltage Range.....	12V.....	9,0 – 14VDC
Under Voltage Lock-out.....	Power up.....	8,0V typ.
	Power down.....	7,7V typ.
Input Filter Type		Capacitive
Positive Logic Remote on/off Control:.....	Module ON.....	Open Circuit or = Vin
	Module OFF.....	< 0,4 VDC

OUTPUT SPECIFICATION:

Voltage Accuracy		±1,5% max.
Transient Response 25% Step Load Change		< 200 μ sec
Ripple and Noise, 20 MHz BW Note 2		75mV p-p max. / 30mV rms max.
Temperature Coefficient		0,03%/°C max.
Short Circuit Protection.....		Continuous
Line Regulation (From High Line to Low Line)	Vo,set=3,3Vdc	±0,2% max.
Load Regulation (Full Load to Zero Load).....	Vo,set=3,3Vdc	±0,5% max.
Capacitive Load, Low ESR.....		8000 μF max.
External Trim Adj. Range (see Table)		Vo=0,75 – 5,0Vdc

GENERAL SPECIFICATIONS:

Efficiency.....		See Table
Isolation Voltage I/O		Non-Isolation
Switching Frequency		300KHz
Over Temperature Protection		130°C typ.
Operating Ambient Temperature Range		-40°C to +85°C
Derating Temperature		see Figure 2&3
Storage Temperature Range		-55°C to +125°C
Dimensions	SIP.....	50,8 x 8,3 x 13,0 mm (2 x 0,327x 0,512 inches)
	SMT.....	33 x 13,46 x 9,3 mm (1,3 x 0,53 x 0,366 inches)
Structure		Non-potted With Open Frame Type

NOTE:

2. The output noise is measured with 10μF tantalum capacitor and 1μF ceramic capacitor across output.
3. The Input terminal recommend to parallel with 100 μF Capacitor and ESR<100mΩ to reduce the input ripple voltage.
4. Suffix „N“ to the model number with Negative Logic Remote on/off
 Module ON: Open Circuit or < 0,4VDC
 Module OFF: < +2,8 VDC to Vin

All Specifications Typical at Nominal Line, Full Load and 25°C.

Derating curve

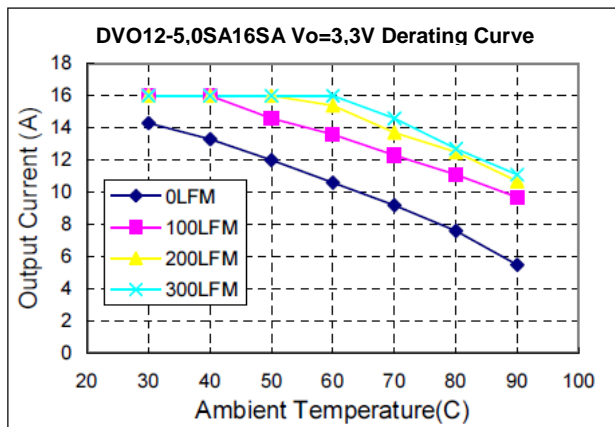


Figure2. Typical Power De-rating for 12V IN

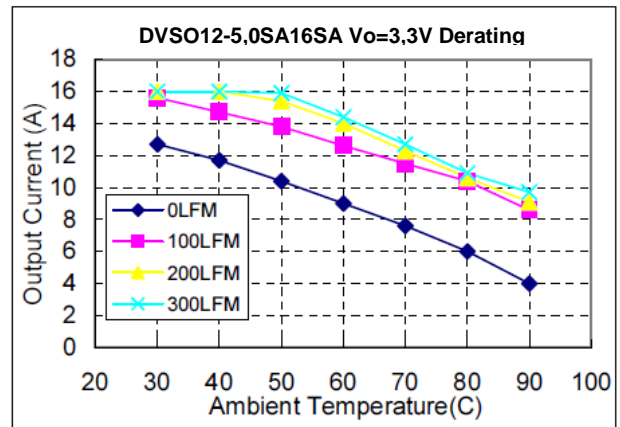
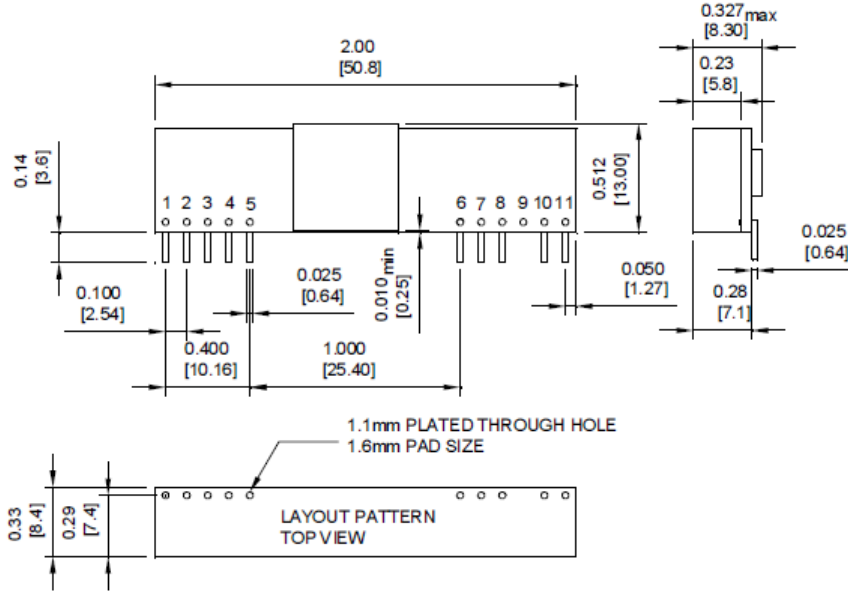


Figure3. Typical Power De-rating for 12V IN

Mechanical Specification

All Dimensions In Inches (mm)
 Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
 Millimeters: X.X= ±0.5 , X.XX=±0.25

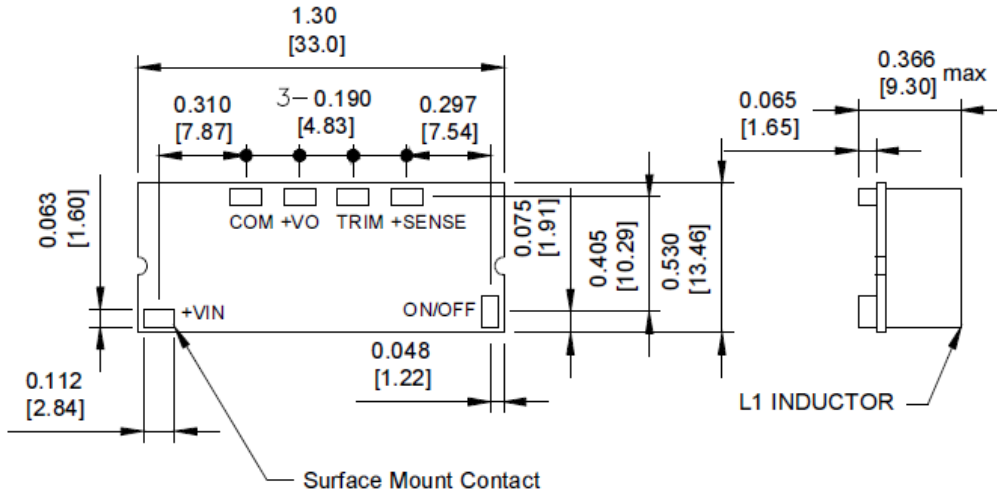
SIP Packages



Pin	CONNECTION
1	+Output
2	+Output
3	+Sense
4	+Output
5	Common
6	Common
7	+V Input
8	+V Input
9	No Pin
10	Trim
11	On/Off Control

SMT Packages

Bottom View of Board



Technische Änderungen vorbehalten / Specifications are subject to change without notice