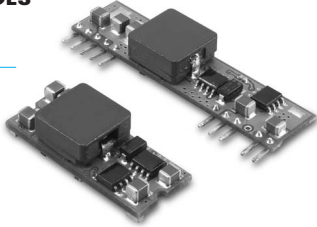


SERIES SIP&SMT10-12

10 AMP SIP&SMT PACKAGES DC-DC CONVERTERS

Features

- Industry Standard Pin out
- High Efficiency to 95%
- 300KHz Switching Frequency
- 9.0 -14VDC Input Range
- Over Temperature Protection
- Continuous Short Circuit Protection
- Remote ON/OFF
- Cost Efficient Open Frame Design
- UL/C-UL60950 Certified



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT NO LOAD	INPUT CURRENT FULL LOAD	%EFF
SIP10-12S10 SMT10-12S10	9.0 -14 VDC	1.0VDC	10 A	50mA	992mA	84
SIP10-12S12 SMT10-12S12	9.0 -14 VDC	1.2VDC	10 A	50mA	1163mA	86
SIP10-12S15 SMT10-12S15	9.0 -14 VDC	1.5VDC	10 A	50mA	1404mA	89
SIP10-12S18 SMT10-12S18	9.0 -14 VDC	1.8VDC	10 A	60mA	1666mA	90
SIP10-12S20 SMT10-12S20	9.0 -14 VDC	2.0VDC	10 A	60mA	1832mA	91
SIP10-12S25 SMT10-12S25	9.0 -14 VDC	2.5VDC	10 A	60mA	2264mA	92
SIP10-12S33 SMT10-12S33	9.0 -14 VDC	3.3VDC	10 A	70mA	2956mA	93
SIP10-12S05 SMT10-12S05	9.0 -14 VDC	5.0VDC	10 A	70mA	4385mA	95
SIP10-12S05A SMT10-12S05A	8.3 -14 VDC	0.75-5VDC	10 A	70mA	2956mA	93%@3.3V

NOTE : 1. Nominal Input Voltage 12VDC

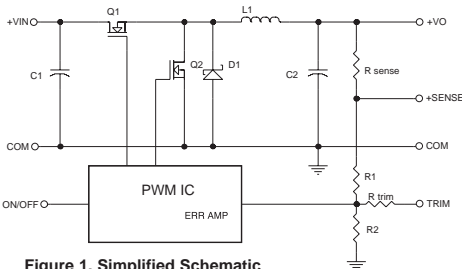


Figure 1. Simplified Schematic

Vo,set (V)	Rtrim (K Ω)
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. Suffix "A" to the model number External Resistor Values for programming output voltage

Specifications

INPUT SPECIFICATIONS:

Input Voltage Range	.....12V.....	9.0 - 14V
	.....12V.....	8.3 - 14V
Under Voltage Lock-out	.....Power up.....	8.0V Typ.
	.....Power down.....	7.7V Typ.
Input Filter Type	.....	Capacitive
Positive Remote on/off Control:	.....	Module ON.....
	.....	Open Circuit or = Vin
	Module OFF.....	<0.4 VDC

OUTPUT SPECIFICATIONS:

Voltage Accuracy	.....	$\pm 1.5\%$ max.
Transient Response 25% Step Load Change	.....	<200 μ sec.
Ripple and Noise, 20MHz BW Note3	.....	20mV rms max. 50mV pk-pk max.
Temperature Coefficient	.....	$\pm 0.03\%/C$ max.
Short Circuit Protection	.....	Continuous
Line Regulation, Note1	.....	$\pm 0.2\%$ max.
Load Regulation, Note2	.....	$\pm 0.5\%$ max.
Capacitive Load, Low ESR	.....	8000 μ F max.
External Trim Adj. Range	.....	$\pm 10\%$
	(SIP/SMT10-12S05)	$\pm 5\%$ - 10%
	(SIP/SMT10-12S05A)	0.75V-5.0V

GENERAL SPECIFICATIONS:

Efficiency	.....	See Table
Isolation Voltage	.....	Non-isolation
Switching Frequency	.....	300KHz Typ.
Over Temperature Protection	.....	120 C Typ.
Operating Ambient Temperature Range	.....	-40 C to +85 C
Power Derating Curve	.....	see Figure 2,3
Storage Temperature Range	.....	-55 C to +125 C
Dimensions:	.....	SIP Package: 2 x 0.512 x 0.327 inches (50.8 x 13.0 x 8.3 mm) SMT Package: 1.3 x 0.53 x 0.366 inches (33.0 x 12.4x 9.3 mm)
Structure	.....	Non-potted With Open Frame Type
Weight	.....	10g

NOTE:

1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. The output noise is measured with 10 μ F tantalum capacitor and 1 μ F ceramic capacitor across output.
4. The Input Terminal Recommend to Parallel With 100uF Capacitor ESR<20m Ω to Reduce The Input Ripple Voltage
5. Suffix "A" to the Model Number with Negative Logic Remote on/off Model ON..... Open Circuit or <0.4VDC
Module OFF.....>+2.8VDC to Vin

Mechanical Specification

All Dimensions are in Inches(mm)
Tolerances : XXX.02 in(X.5), unless otherwise noted
XXXX.010 in (X.XX.25)

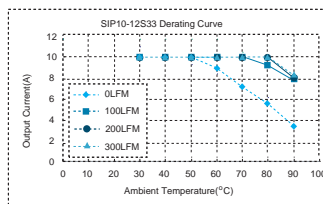
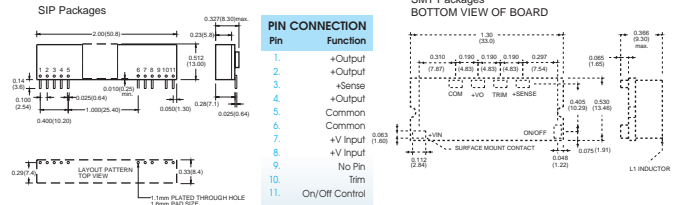


Figure 2. Typical Power Derating vs. Output Current for 12V IN

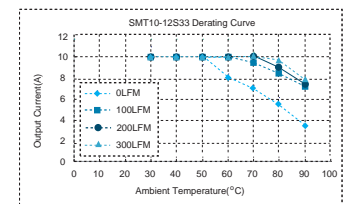


Figure 3. Typical Power Derating vs. Output Current for 12V IN

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Änderungen vorbehalten / subject to change without notice

All Specifications Typical At Nominal Line, Full Load and 25 C Unless Otherwise Noted.