

DELPHI SERIES



FEATURES

- High efficiency:
93.0% @ 12Vin, 3.3V/10A out (SMD/SIP)
91.5% @ 12Vin, 3.3V/16A out (SMD)
92.0% @ 12Vin, 3.3V/16A out (SIP)
- Small size and low profile:
1.30" x 0.53" x 0.35" (SMD)
2.00" x 0.50" x 0.37" (SIP)
- Standard footprint
- Voltage and resistor-based trim
- Pre-bias startup
- Output voltage tracking
- No minimum load required
- Output voltage programmable from 0.75Vdc to 5.0Vdc via external resistor
- Fixed frequency operation
- Input UVLO, Output OTP, OCP
- Remote ON/OFF & Remote sense
- ISO 9001, TL 9000, ISO 14001, QS9000, OHSAS18001 certified manufacturing facility
- UL/cUL 60950-1 (US & Canada) Recognized, and TUV (EN60950-1) certified.
- CE mark meets 73/23/EEC and 93/68/EEC directives

Delphi Series DC/DC Power Modules: DNM/DNL, Non-Isolated, Point of Load 8.3-14Vin, 0.75V-5.0V and 10A/16/20A out

The Delphi series DNM10/DNL10, 8.3V~14V input, single output, non-isolated point of load DC/DC converters are the latest offering from a world leader in power systems technology and manufacturing — Delta Electronics, Inc. The DNM/DNL series provides a programmable output voltage from 0.75V to 5.0V using an external resistor. The DNM/DNL converters have flexible and programmable tracking and sequencing features to enable a variety of startup voltages as well as sequencing and tracking between power modules. This product family is available in a surface mount or SIP package and provides up to 10A (DNM) or 16 & 20A (DNL) of current in an industry standard footprint. With creative design technology and optimization of component placement, these converters possess outstanding electrical and thermal performance and extremely high reliability under highly stressful operating conditions.

OPTIONS

- Negative On/Off logic
- Tracking feature
- Surface mount and SIP packages

APPLICATIONS

- Telecom / DataCom
- Distributed power architectures
- Servers and workstations
- LAN / WAN applications
- Data processing applications

SPECIFICATIONS

GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage	Typical	12V (8.3V ~ 14.0V)	Voltage Adjustment	Typical	0.75V ~ 5.0 Vdc
Switching Frequency	Typical	300KHz	Line Regulation	Typical	0.3%
Turn-on time	Typical	7 mS	Load Regulation	Typical	0.4%
OTP	Typical	125°C	Ripple & Noise	Typical	30 mV
Size	Typical	1.30" x 0.53" x 0.35" (SMD) 2.00" x 0.50" x 0.37" (SIP)	Current Limits	Typical	180%

PART NUMBERING SYSTEM

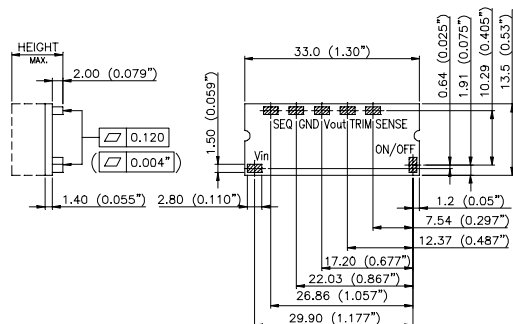
DNL	10	S	0A0	S	16	P	F	D
Product Family	Input Voltage	Number of Outputs	Output Voltage	Package Type	Output Current	On/Off Logic		Option Code
DNM - 10A DNL - 16/20A	04 - 2.8V ~ 5.5V 10 - 8.3V ~ 14V	S - Single	0A0 - Programmable	R - SIP S - SMD	10 - 10A 16 - 16A 20 - 20A	N - Negative (Default) P - Positive	F - RoHS 6/6 (Lead Free)	D - Standard Functions

MODEL LIST

Model Name	Package	Input Voltage	Output Voltage	Output Current	On/Off logic	Efficiency 12Vin, 3.3Vout @ full load
DNM10S0A0S10NFD	SMD	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	10A	Negative	93.0%
DNM10S0A0R10NFD	SIP	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	10A	Negative	93.0%
DNL10S0A0S16NFD	SMD	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	16A	Negative	91.5%
DNL10S0A0R16NFD	SIP	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	16A	Negative	92.0%
DNL10S0A0S20NFD	SMD	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	20A	Negative	TBD
DNL10S0A0R20NFD	SIP	8.3V ~ 14Vdc	0.75V ~ 5.0Vdc	20A	Negative	91.5%

MECHANICAL DRAWING

SMD PACKAGE

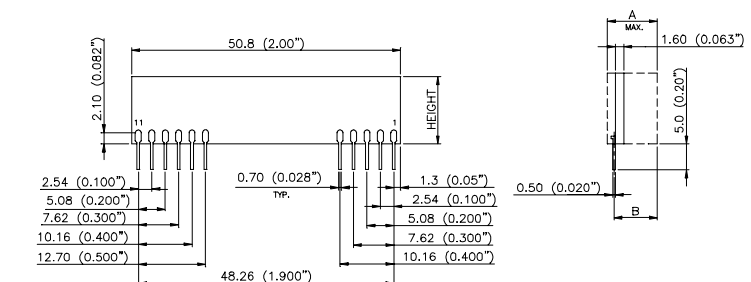


	HEIGHT
04S	8.8 (0.35")
10S	9.7 (0.38")

SIDE VIEW

BOTTOM VIEW

SIP PACKAGE



PIN#	Function	PIN#	Function	PIN#	Function
1	Vo	5	GND	9	TRACK
2	Vo	6	GND	10	TRIM
3	Vo SENSE	7	Vi	11	ON/OFF
4	Vo	8	Vi		

	A	B	HEIGHT
04S	8.5 (0.33")	7.15 (0.281")	13.4 (0.53")
10S	9.5 (0.37")	8.15 (0.320")	12.7 (0.50")

BACK VIEW

SIDE VIEW

NOTES:

DIMENSIONS ARE IN MILLIMETERS AND (INCHES)

TOLERANCES: X.Xmm±0.5mm(X.XX in.±0.02 in.)

X.XXmm±0.25mm(X.XXX in.±0.010 in.)

CONTACT: www.delta.com.tw/dcdc

USA:

Telephone:

East Coast: (888) 335 8201

West Coast: (888) 335 8208

Fax: (978) 656 3964

Email: DCDC@delta-corp.com

Europe:

Telephone: +41 31 998 53 11

Fax: +41 31 998 53 53

Email: DCDC@delta-es.tw

Asia & the rest of world:

Telephone: +886 3 4526107 x6220

Fax: +886 3 4513485

Email: DCDC@delta.com.tw

WARRANTY

Delta offers a two (2) year limited warranty. Complete warranty information is listed on our web site or is available upon request from Delta.

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