

# DELPHI SERIES



## FEATURES

- High Efficiency: 92.5% @ 12Vin, 5V/3A out
- Small size and low profile:
  - 0.80" x 0.45" x 0.27" (SMD)
  - 0.90" x 0.40" x 0.25" (SIP)
- Standard footprint and pinout
- Resistor-based trim
- Output voltage programmable from 0.75Vdc to 5.5Vdc via external resistors
- Pre-bias startup
- No minimum load required
- Fixed frequency operation
- Input UVLO, Output OTP, OCP
- Remote ON/OFF
- ISO 9001, TL 9000, ISO 14001, QS9000, OHSAS18001 certified manufacturing facility
- UL/cUL 60950 (US & Canada) Recognized, and TUV (EN60950) - pending
- CE mark meets 73/23/EEC and 93/68/EEC - pending

## Delphi series DNT12 Non-Isolated Point of Load DC/DC Power Modules: 8.3~14Vin, 0.75~5.5Vo, 3A/5A

The Delphi series DNT12, 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 DNT12 series provides a programmable output voltage from 0.75V to 5.5V using an external resistor. This product family is available in a surface mount or SIP package and provides up to 3A or 5A 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

- Positive On/Off logic
- 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	8.3V~12V	Voltage Adjustment	Typical	0.75V ~ 5.5V
Switching Frequency	Typical	300kHz /480kHz for 3A/ 5A	Line Regulation	Typical	0.3%
Turn-on time	Typical	7 mS /15mS for 3A/ 5A	Load Regulation	Typical	0.4%
			Ripple & Noise	Typical	50 mVp-p
Size	Typical	0.80" x 0.45" x 0.27"(SMD) 0.90" x 0.40" x 0.25" (SIP)	Current Limits	Typical	200%

## PART NUMBERING SYSTEM

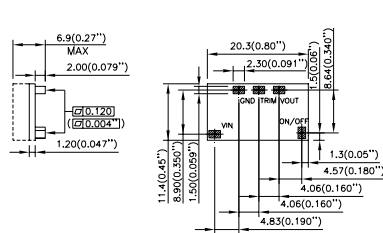
DNT	12	S	0A0	S	03	N	F	A
Product Family	Input Voltage	Number of Outputs	Output Voltage	Package Type	Output Current	On/Off Logic		Option Code
DNT - 3A	04 - 2.4V ~ 5.5V 12 - 8.3V ~ 14V	S - Single	0A0 - Programmable	R - SIP S - SMD	03 - 3A 05 - 5A	N - Negative P - Positive	F- RoHS 6/6 (Lead Free)	A - Standard Function

## MODEL LIST

Model Name	Package	Input Voltage	Output Voltage	Output Current	Efficiency 12Vin, 5Vout full load
DNT12S0A0S03NFA	SMD	8.3V ~ 14Vdc	0.75V ~ 5.5Vdc	3A	93.0%
DNT12S0A0R03NFA	SIP	8.3V ~ 14Vdc	0.75V ~ 5.5Vdc	3A	92.5%
DNT12S0A0S05NFA	SMD	8.3V ~ 14Vdc	0.75V ~ 5.5Vdc	5A	92.0%
DNT12S0A0R05NFA	SIP	8.3V ~ 14Vdc	0.75V ~ 5.5Vdc	5A	91.0%

## MECHANICAL DRAWING

### SMD PACKAGE

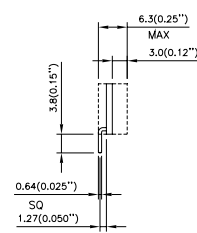


SIDE VIEW

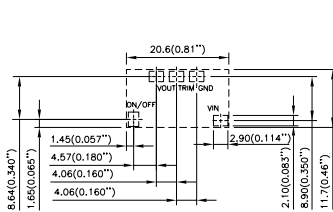
BOTTOM VIEW

BACK VIEW

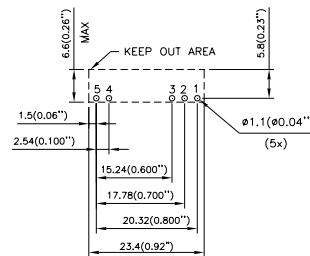
### SIP PACKAGE



SIDE VIEW



RECOMMEND PWB PAD LAYOUT



RECOMMEND PWB PAD LAYOUT

PIN#	FUNCTION
1	Vout
2	TRIM
3	GND
4	Vin
5	On/Off

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.)

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## WARRANTY

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