GDELPHI SERIES





Delphi Series DNT, Non-Isolated Point of Load DC/DC Power Modules: 2.4~5.5Vin, 0.75~3.63Vo, 3A/5A

The Delphi Series DNT04, 2.4V-5.5V 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 DNT04 series provides a programmable output voltage from 0.75V to 3.63V 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.

FEATURES

• High Efficiency: 93.5% @ 5Vin, 3.3V/5A 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 0.75V to 3.63V via external resistors
- Pre-bias startup
- No minimum load required
- Fixed frequency operation
- Input UVLO, OCP
- Remote ON/OFF
- ISO 9001, TL 9000, ISO 14001, QS 9000, OHSAS 18001 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

OPTIONS

- Positive On/Off logic
- SMD and SIP packages

APPLICATIONS

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







GENERAL SPECIFICATIONS			OUTPUT SPECIFICATIONS		
Input Voltage	Typical	2.4V ~ 5.5V	Voltage Adjustment	Typical	0.75V~3.3V
Switching Frequency	Typical	300KHz	Line Regulation	Typical	0.2%
Turn-on time	Typical	7mS	Load Regulation	Typical	0.2%
Size	Typical	0.80" x 0.45" x 0.27" (SMD)	Ripple & Noise	Typical	30 mVp-p
		0.90" x 0.40" x 0.25" (SIP)	Current Limits	Typical	200%

PART NUMBERING SYSTEM

DNT	04	S	0A0	S	03	Р	F	Α
Product Family	Input Voltage	Number of Outputs	Output Voltage	Package Type	Output Current	On/Off Logic		Ooption Code
DNT – 3A or 5A	04 - 2.4V~ 5.5V		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 5Vin, 3.3Vdc full load		
DNT04S0A0S03NFA	SMD	2.4V ~ 5.5Vdc	0.75V ~ 3.63Vdc	ЗA	93.0%		
DNT04S0A0R03NFA	SIP	2.4V ~ 5.5Vdc	0.75V ~ 3.63Vdc	ЗA	94.0%		
DNT04S0A0S05NFA	SMD	2.4V ~ 5.5Vdc	0.75V ~ 3.63Vdc	5A	93.5%		
DNT04S0A0R05NFA	SIP	2.4V ~ 5.5Vdc	0.75V ~ 3.63Vdc	5A	93.0%		

10.2(0.40")

1.3(0.05")

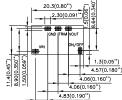
2.54(0.100

MECHANICAL DRAWING



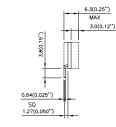
SIDE VIEW

SMD PACKAGE



BOTTOM VIEW

SIP PACKAGE





22.9(0.90'')

15.24(0.600")

17.78(0.700")

20.32(0.800")

SIDE VIEW

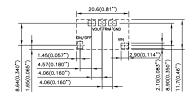
Vout

TRIM

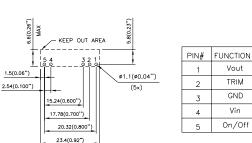
GND

Vin

On/Off



RECOMMAND PWB PAD LAYOUT



RECOMMAND PWB PAD LAYOUT

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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