

Features

- 50 WATT DIL PACKAGE
- 4:1 WIDE INPUT VOLTAGES
- EFFICIENCY UP TO 92%
- PI INPUT FILTER
- 100% BURNED IN
- UL 94V-0 PACKAGE MATERIAL
- CUSTOMIZED SOLUTIONS AVAILABLE
- REGULATED OUTPUT TYPE



50 Watt DC/DC Converter

WIDE INPUT VOLTAGE RANGE
50 WATT DC-DC CONVERTER



Input Specifications

Input Voltage	:24Vdc	
Input Voltage Range	:9~36Vdc	
Input Surge Voltage	:50Vdc Max.	@100 ms Max.
Start-up Voltage	:9Vdc Max.	
Under Voltage Shutdown	:7.5Vdc Typ.	
Start-up Time (constant resistive load)	:30ms Typ.	@Power-up & Remote
Input Filter	:Internal PI Type	
Remote ON/OFF	:Open or 3.5~12Vdc(DC/DC ON)	@Positive logic
	:Short or 0~1.2Vdc(DC/DC OFF)	(Refer to –Vin PIN)
	:-0.5 ~ +0.5 mA	@Input current of Remote ON/OFF pin
	:3 mA Typ.	@Remote off input current

Output Specifications

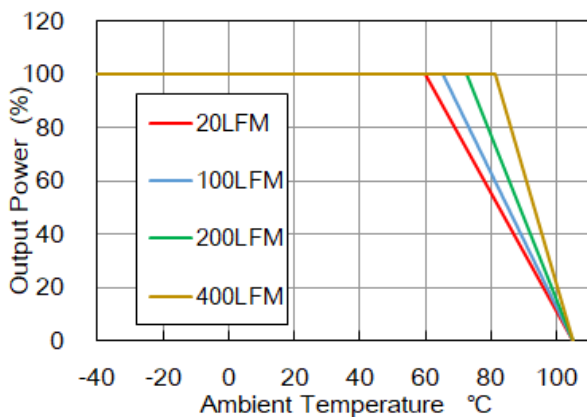
Output Voltage	:12Vdc	
Output Voltage Accuracy	:±1%	@11.88~12.12Vdc @Vin=9~36V
Output Current	:4170mA	
Efficiency	:92% Typ.	@Vin=24Vdc
Ripple / Noise	:150mVp-p Max.	@20MHz Bandwidth , with 1uF*1 MLCC and /10uF*1 TC
Output Power Protection	:180% Max.	@Hiccup, auto-recovery
Over Voltage Protection	:15Vdc Typ.	
Short Circuit Protection	:Continuous	@Hiccup, auto-recovery
Line Regulation	:±0.2% Max.	@Full Load
Load Regulation	:±0.5% Max.	@0% TO 100% load
Voltage adjustability	:±10% Max.	
Temperature coefficient	:±0.02%/°C Max.	
Transient response setting time	:350us Typ.	@25% load step change
Transient response Deviation	:±5% Max.	@25% load step change

General Specifications

Operating Temperature Range	: -40°C ~ +60°C	without derating @ Nominal Vin
Operating Case Temperature	: +105°C Max.	
Over Temperature Protection	: +115°C Typ.	@Case Temperature
Storage Temperature	: -55°C ~ +125°C	
Switching Frequency	: 280KHz Typ.	
Humidity	: 95% Max	@Non Condensing
Isolation Voltage	: 1600VDC	@Input To Output
	: 1000VDC	@Input(Output) To Case
Isolation Resistance	: 1000M Ω Min	@500Vdc
Isolation Capacitance	: 2200pF Max	
Cooling	: Natural Convection	@20LFM
Case Material	: Copper	
Potting material	: Silicone (UL94-V0)	
MTBF	: 2.59x10 ⁵ Hours	MIL-HDBK-217F@25°C
Weight	: 50g Typ.	

Temperature Derating Graph

Part Number

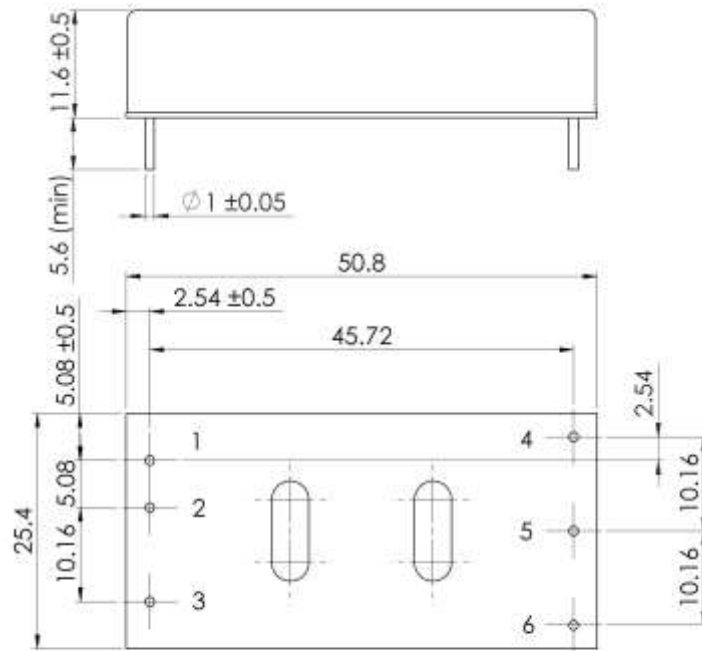


@ Nominal Vin

YNB50- 24 S 12
A B C D

- A: Series**
- B: Input Voltage**
- C: Single Output**
- D: Output Voltage**

Outline Dimensions



BOTTOM VIEW

Unit : mm

Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Assignment

PIN	1	2	3	4	5	6
FUNCTION	+Vin	-Vin	Remote On/Off	+Vout	-Vout	Trim