

**Features**

- 50 WATT DIL PACKAGE
- 4:1 WIDE INPUT VOLTAGES
- EFFICIENCY UP TO 91%
- 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	:48Vdc	
Input Voltage Range	:18~75Vdc	
Input Surge Voltage	:100Vdc Max.	@100 ms Max.
Start-up Voltage	:18Vdc Max.	
Under Voltage Shutdown	:16Vdc 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**

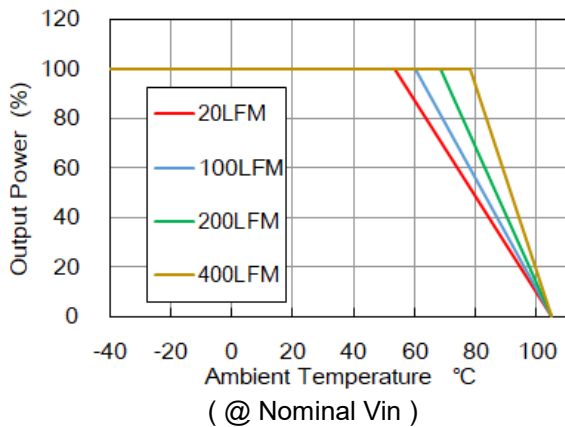
Output Voltage	:5Vdc	
Output Voltage Accuracy	:±1%	@5.95~5.05Vdc @Vin=18~75V
Output Current	:10000mA	
Efficiency	:91% Typ.	@Vin=48Vdc
Ripple / Noise	:100mVp-p Max.	@20MHz Bandwidth , with 1uF*1 MLCC and /10uF*1 TC
Output Power Protection	:180% Max.	@Hiccup, auto-recovery
Over Voltage Protection	:6.2Vdc 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 ~ +53°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 <sup>5</sup> Hours	MIL-HDBK-217F@25°C
Weight	: 50g Typ.	

**Temperature Derating Graph**

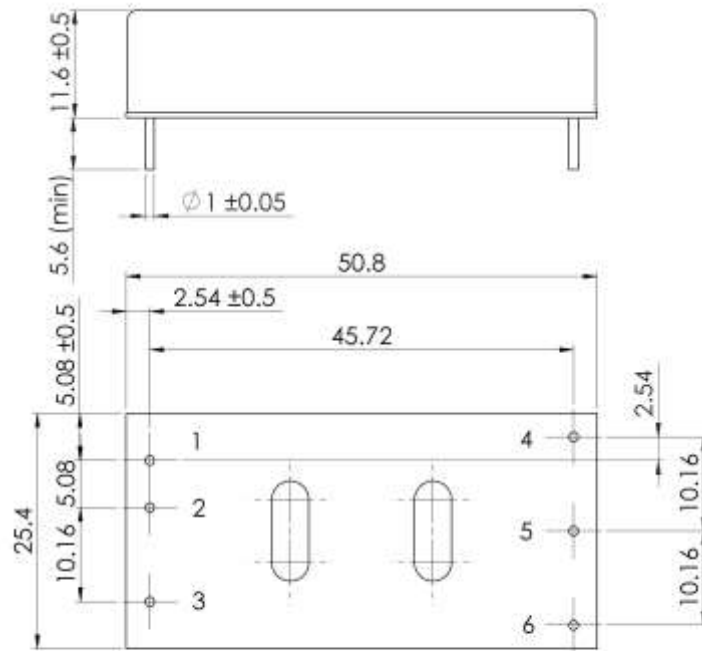
**Part Number**



**YNB50- 48 S 05**  
**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