



Shenzhen Hanlunda Industrial Co., Ltd.

HDD69-28T8D5A

Input Range	Output Voltage	Output Current	Output Ripple & Noise	Input Current ⁽²⁾	Eff ⁽³⁾ (%)	Capacitor Load max. ⁽⁴⁾
25 – 32 VDC	+8 VDC +5 VDC -5 VDC	8000mA 700mA -300mA	100mVp-p 50mVp-p 50mVp-p	3119mA	83	6000 μ F 1000 μ F 470 μ F

TECHNICAL SPECIFICATION

All specifications are typical at nominal input, full load with a 2200 μ F at +8V ⁽¹⁾, airflow rate = 500LFM and 25°C otherwise noted

OUTPUT SPECIFICATIONS			GENERAL SPECIFICATIONS		
Output power	69 Watts max.		Efficiency	83%	
Output voltage	+8VDC +5VDC -5VDC		Isolation voltage	Input to Output	1600VDC,min.
Output current (Note 5)	+8VDC +5VDC -5VDC	8000mA 700mA -300mA	Isolation resistance	10 ⁹ ohms, min	
Voltage accuracy	Full load and nominal Vin	± 2%	Isolation capacitance	2500pF, max	
Voltage adjustability (Note 6)	+8VDC	7.5V ~ 9.0V	Switching frequency	+8VDC +5VDC -5VDC	350KHz 300KHz 580KHz
Minimum load	0%		Design meet safety standard	IEC60950-1, UL60950-1, EN60950-1	
Line regulation	LL to HL at Full Load	± 0.2%	Case material	Open frame	
Load regulation	0% to 100% FL	± 0.5%	Base material	None	
Ripple and noise	20MHz bandwidth	+8VDC 100mVp-p +5VDC 50mVp-p -5VDC 50mVp-p	Potting material	None	
Temperature coefficient	± 0.02% / °C, max.		Dimensions	2.05 X 1.97 X 0.27 Inch (52.0 X 50.0 X 6.8 mm)	
Transient response recovery time	25% load step change	+8V : 2000 μ S others : 250 μ S	Weight	25.9g (0.91oz)	
Over load protection	% of FL at nominal input	150%, typ.			
Short circuit protection	Continuous, automatic recovery				
INPUT SPECIFICATIONS			ENVIRONMENTAL SPECIFICATIONS		
Input voltage range	28V nominal input	25 – 32VDC	Operating ambient temperature (Note 8)	-40°C ~ +85°C (with derating)	
Input filter	Pi type		Over temperature protection	140°C, typ.	
Start up time	Nominal Vin and constant resistive load	Power up	Storage temperature range	-55°C ~ +125°C	
Remote ON/OFF (Note 7)					
Positive logic	ON= Open or 3V < Vr < 12V OFF= Short or 0V < Vr < 1.2V				
Input current of remote control pin	Nominal Vin	-0.5mA~+1mA			
Remote off state input current	Nominal Vin	3mA			

Note

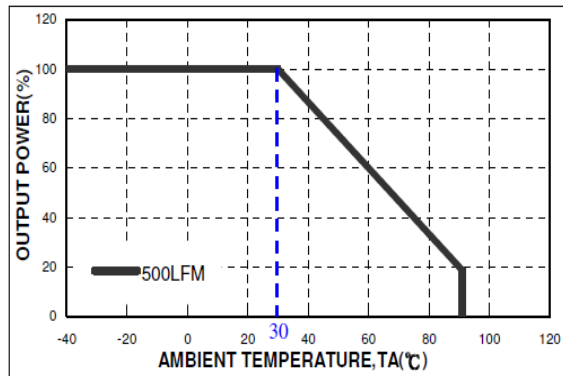
1. The capacitor 2200 μF at +8V output must near to the pins for stability.
2. Maximum value at nominal input voltage and full load.
3. Typical value at nominal input voltage and full load.
4. Test by minimum V_{in} and constant resistive load.
5. A 20A/6ms pulse output current may flow through +8V output. The output should not be shutdown.
6. +8V output voltage programmable from 8.0V to 9.0V by connecting a single resistor R_u or 7.5V to 8.0V by connecting a single resistor R_d (show the Fig. 1) use the following equation :

$$R_u = \left[\frac{25}{V_o - 8} - 22 \right] \text{K}\Omega \quad R_d = \left[\frac{10 * V_o - 25}{8 - V_o} - 22 \right] \text{K}\Omega$$

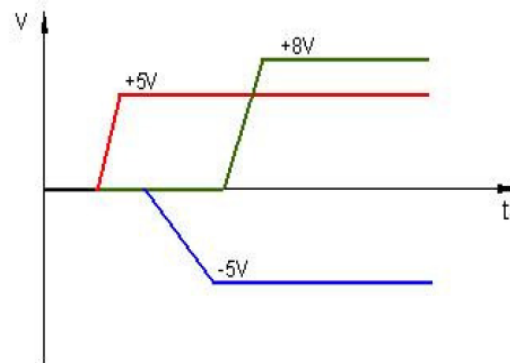
7. The pin voltage is referenced to negative input.

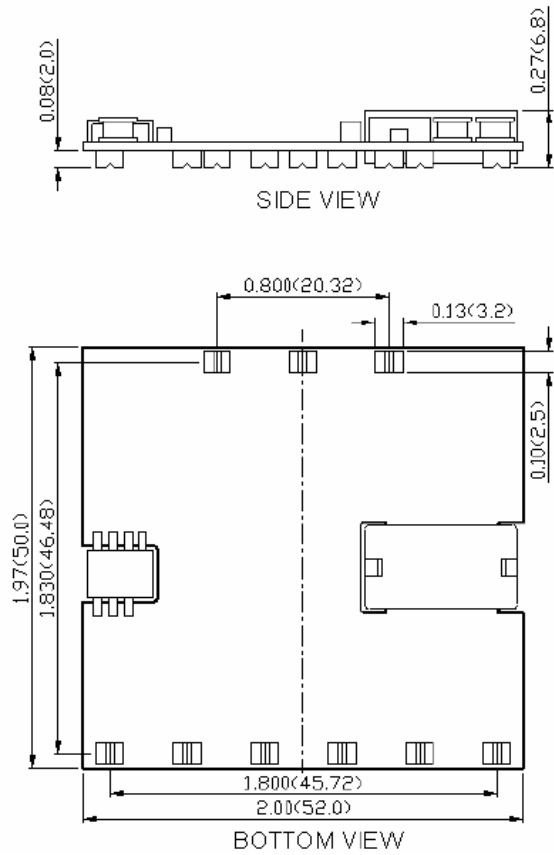
CAUTION: This power module is not internally fused. An input line fuse must always be used.

DERATING CURVE



START-UP SEQUENCE





PIN CONNECTION	
PIN	HDD69-28T8D5A
1	+INPUT
2	-INPUT
3	CTRL
4	+8V OUTPUT
5	COMMON
6	TRIM
7	+5V OUTPUT
8	COMMON
9	-5V OUTPUT

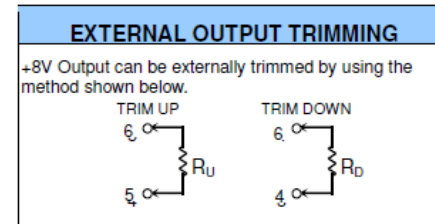


Fig. 1

- All dimensions in Inches (mm)
Tolerance: X.XX±0.02 (X.X±0.5)
X.XXX±0.01 (X.XX±0.25)
- Pin pitch tolerance ±0.01 (0.25)
- Pin dimension tolerance ±0.004 (0.1)