

POWER CONVERSION PRODUCTS	Airborne Series
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Part No.: VTA96003-01

28VDC / 5VDC Power Supply

FEATURES

- ❑ Up to 5 Watts Output Power
- ❑ RTCA DO-160C Environmental & Power Specifications
- ❑ MIL-STD-704A Power Transient Specifications
- ❑ High Input / Output Isolation
- ❑ 20 ms, Full Load O/P Hold-up Capability
- ❑ Continuous Short Circuit Protection
- ❑ Input Reverse Polarity Protection
- ❑ Thermal Protection

This Power Supply designed for low power, airborne applications, features a low profile package of 4.6” L x 1.2” W x 0.75” H or 1.2Watt/in³. It has excellent line regulation, input transient suppression, low output ripple, as well as current limiting/thermal shutdown protection.

Input Specifications:

Steady State Voltage 16 to 36 Vdc
 Surge Voltage 80 V for 50 ms
 Softstart..... Auto restart < 10 ms after power failure
 Isolation: Input/Output-to-chassis > 10 megohm @ 500VDC
 Transient Protection (600V)..... RTCA DO-160C / MIL-STD-704A
 Thermal Shutdown..... > 125°C @ Case Temperature

Output Specifications:

<u>Nominal Voltage</u>	<u>Nominal Current</u>	<u>DC Regulation</u>	<u>Ripple & Noise</u>	<u>Maximum Power</u>
+ 5 VDC	1 A	± 3%	< 150 mVp-p up to 10MHz	5 W

Output Specifications:

Curent Limit	2.2 Amp. maximum
Output Hold-up Time.....	20 ms at +20°C @ 1 Amp
	10 ms at -40°C @ 1 Amp

Operational Features:

Power Fail Detect.....	Active Low TTL signal for Vin < 15VDC
Input Current Protection.....	Auto-reset polyswitch type

Physical Specifications:

Weight.....	< 0.2 lbs or 0.90 kgs
Case.....	Alluminum alloy
Finish.....	Allodyne chemical film
Mounting Position.....	Any orientation
Cooling Method.....	Conduction cooling via 1.2" x 4.6" mounting surface.
Connections.....	I/O: Solder tail feed-through pins

Environmental Specifications:

Shock.....	40 g's, 11msec, half sine wave (3 axis)
Vibration.....	RTCA/DO-160C, Section 8, Category U
Temperature, Operating	-40° to +85°C
Temperature, Storage.....	-55° to +90°C
Altitude.....	RTCA/DO-160C, Cat C2 +50,000 ft.
Humidity.....	RTCA/DO-160C, Section 6, Category A
RF Susceptibility	RTCA/DO-160C, Section 20
RF Emissions.....	RTCA/DO-160C, Section 21
Lightning Susceptibility	RTCA/DO-160C, Section 22
Predicted Reliability (MIL-HDBK-217F).....	> 100,000 hours A _{rw} @ 55°C

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