

70W DC-DC Converter
Single Output, Isolated

Features:

- Wide Input Voltage Range
- Extended Operating Temperature
- Fixed Frequency Switching
- High Efficiency
- Low Ripple
- Thermal Shutdown (optional)

Packaging Options

- Hermetic
- Near-Hermetic (Moisture and Contamination Resistant, Gross Leak Tested)

Electrical Characteristics

Tc = 25 degC, unless specified otherwise.

PARAMETER	TEST CONDITIONS	MIN	TYP.	MAX	UNITS
Input Voltage	Tc = -55 to 125 degC Continuous, Transient, 1 s Other Transients	13	28	50 80	V
				MIL-STD-704E	
Startup Threshold Voltage	Tc = -55 – 125 degC Inhibit = H			13	V
Input Undervoltage Turn OFF	Tc = -55 – 125 degC Inhibit = H	11			V
Input DC Current	Vin = 28V, Vout = 28V Nominal Load No Load Inhibited			2.9 TBD TBD	A
Input Ripple Current	Vin = 28V Nominal Load			200	mA
Input Reverse Current	Peak Value I ² t Value			150	A A ² s
Hipot Voltage	Sea Level Input to Chassis Output to Chassis Input to Output		1000 500 1000		VDC
Total Output Power	Nominal, Tcase = 100 C Tcase = 125 C		70 TBD		W

PRELIMINARY TECHNICAL DATA
DATA SHEET SCP-5762, REV. -

PARAMETER	TEST CONDITIONS	MIN	TYP.	MAX	UNITS
Output Voltage Range Regulation Ripple Voltage Nominal Current Overload Current Transient Response Time	Tc = -55 – 125 C	23	.1	29	V
	Adjustable				
	Line and Load				
	B = 10kHz – 10MHz				
	Tc = 100 C				
	Tc = 125C				
	0 – 30 second				
Step Load 50% to 100%	120	TBD	TBD	%	
Step Input 28V to 50V	TBD	TBD			
Inhibit Voltage	L = Power OFF H = Power ON	0 2.6		.5	V
Startup Delay	Vin = 28V		30		ms
Soft Start Ramp-up	Vin = 28V		5		ms
Efficiency	Vin = 28V, Pout = 70W, Tcase = 85 C, Output = 28 Volts		87		%

Physical Characteristics

Temperature	
Operating	Tc = -55C to +125C
Storage	Tc = -65C to +150C
Altitude	
Operating	-2,000 ft to 60,000ft
Cooling	
Power Dissipation	< 12W Continuous
Thermal Impedance Case to Ambient	TBD
Outline	3" x 1.5" x .45"

DISCLAIMER:

1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the Sensitron Semiconductor sales department for the latest version of the datasheet(s).

2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.

3- In no event shall Sensitron Semiconductor be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). Sensitron Semiconductor assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.

4- In no event shall Sensitron Semiconductor be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.

5- No license is granted by the datasheet(s) under any patents or other rights of any third party or Sensitron Semiconductor.

6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of Sensitron Semiconductor.

7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations.