SGS-THOMSON MICROELECTRONICS

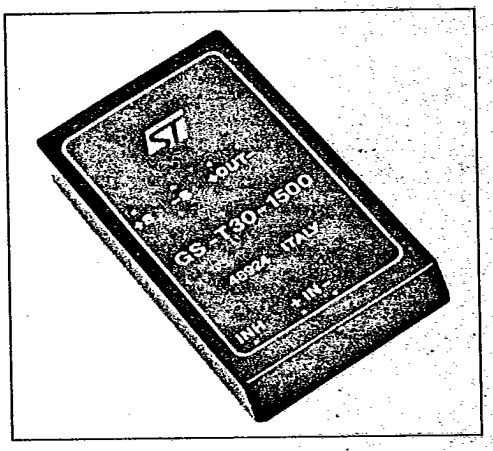
GS-T25/30 FAMILY

S G S-THOMSON T-57-11

25-30 WATT DC-DC CONVERTERS

FEATURES

- MTBF in excess of 1M hours at +45°C ambient temperature
- PCB or chassis mountable
- No external component required
- Six sided case
- High efficency (see data)
- 500 V_{DC} minimum isolation
- Wide input voltage range (36 to 72V)
- Reverse input polarity protection
- Peak input overvoltage withstand (90V/1 sec.)
- Minimized input reflected current
- Soft start
- Remote inhibit/enable with low stand by current
- Remote output voltage sense
- Non latching permanent short circuit protection
- Latching output overvoltage protection
- No derating over the temperature range



DESCRIPTION

The GS-T25/30 series is a family of isolated DC-DC converters specially designed for Telecom applications, available in different output voltages: 5V; 6V; 12V and 15V.(Other Output Voltages available on request)

The output power is in the range of 25W to 30W.

To ensure very long life, these converters do not use electrolytic aluminium capacitors or optoelectronic feedback systems.

PRODUCTS FAMILY

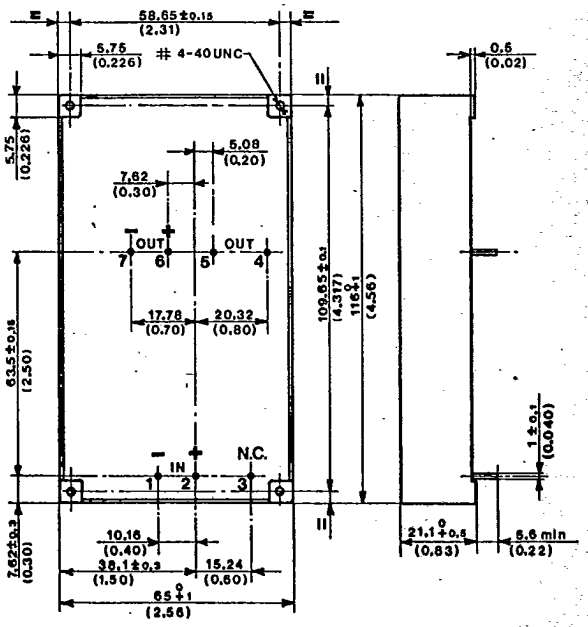
Ordering Number	Output Voltage	Output Current	Output Power
GS-T25-0500	5V	5A	25W
GS-T27-0600	6V	4.5A	27W
GS-T30-1200	12V	2.5A	30W
GS-T30-1500	15V	2A	30W

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_I	DC Input Voltage	34 to 72	V
V_{ipk}	Input Transient Overvoltage ($T \leq 1$ sec.)	90	V
V_{ir}	Input Reverse Voltage	100	V
T_{stg}	Storage Temperature Range	– 55 to 105	°C
T_{op}	Operating Temperature Range	– 25 to 71	°C

CONNECTION DIAGRAM AND MECHANICAL DATA

T-57-11



Dimensions in mm (inches) bottom view

PIN DESCRIPTION

Pin	Function	Description
1	– Input	
2	+ Input	Unregulated input voltage (typically 48V) must be applied between pin 1-2. The input section of the DC-DC converter is protected against reverse polarity by a series diode. No external fuse is required. Input is filtered by a Pi network.
3	Remote Inhibit/Enable	Logically compatible with CMOS or open collector TTL. The converter is ON when the voltage applied to pin 3 is 1.8VDC min or left open referenced to the pin 1. The converter is OFF for a control voltage lower than 1.2VDC.
4	+ Sense	For connection to remote loads this pin allows voltage sensing to the load itself. To be connected to pin 6 when remote sensing is not used.
5	– Sense	See pin 4. To be connected to pin 7 when remote sensing is not used.
6	+ Output	
7	– Output	