SGS-THOMSON MICROELECTRONICS

GS2TX-9A

2 W LAN DC-DC CONVERTER

Type	V_i	V_o	I_o
GS2TX-9A	4,5 to 15,75 V	– 9 V	– 250 mA

DESCRIPTION

The GS2TX-9A is a 2.25W unregulated DC-DC converter designed to provide power, voltage regulation and isolation for Local Area Network (CHEAPERNET and ETHERNET) transceivers from a wide range of input voltage, according to IEEE 802.3 Standard.

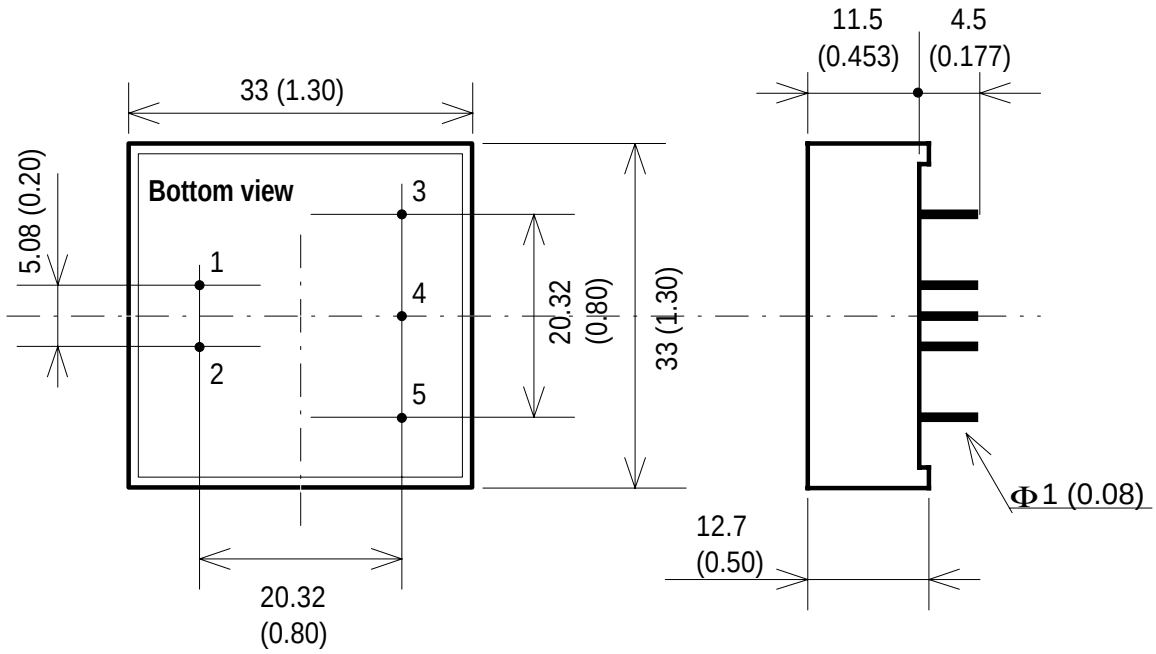
An internal network is added to guarantee soft start at switch-on.

ELECTRICAL CHARACTERISTICS ($T_{amb.}$= 25° C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	V_o = 9V I_o = 0 to – 250mA	4.5		15.75	V
I_{ir}	Input Reflected Current	V_i = 5V V_o = – 9V I_o = – 250mA		25	30	mApp
I_{ir}	Input Reflected Current	V_i = 12V V_o = – 9V I_o = – 250mA		2	5	mApp
V_o	Output Voltage	V_i = 4.5 to 15.75V I_o = 0 to – 250mA	– 8.55	– 9.00	– 9.45	V
V_{or}	Output Ripple Voltage	V_i = 5V I_o = – 250mA		7	10	mV_{RMS}
V_{or}	Output Ripple Voltage	V_i = 12V I_o = – 250mA		2	5	mV_{RMS}
δV_{OL}	Line Regulation	V_i = 4.5 to 5.5V I_o = – 250mA			5	mV
δV_{OO}	Load Regulation	V_i = 4.5 to 15.75V I_o = – 20 to – 250mA			5	mV
I_o	Output Current*	V_i = 4.5 to 15.75V V_o = – 9V	0		– 250	mA
V_{is}	Isolation Voltage		2500			V_{DC}
η	Efficiency	V_i = 5V I_o = – 250mA	70	73		%
η	Efficiency	V_i = 12V I_o = – 250mA	75	80		%
T_{op}	Operating Ambient Temperature Range		0		+70	°C
T_{stg}	Storage Temperature Range		– 40		+85	°C

* When the input voltage is <5V and the output current is less than 20mA, the output ripple voltage increases due to discontinuous operation.

CONNECTION DIAGRAM AND MECHANICAL DATA



Pin configuration:

1 + Vin
2 - Vin
3 NC
4 + Vout
5 - Vout

Package A. Dimensions in mm (inches).