SGS-THOMSON MICROELECTRONICS

S G S-THOMSON

GS-2IX-9

T-57-11

DC-DC CONVERTER FOR LAN NODE SUPPLY

DESCRIPTION

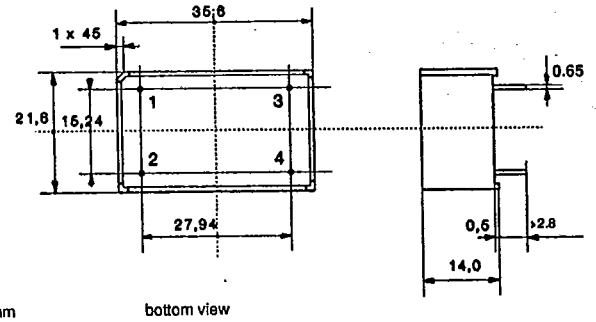
The GS-2IX-9 is a 2.25W DC-DC converter designed to provide power, voltage regulation and isolation for local area network (CHEAPERNET and ETHERNET) transceivers from a wide range of input voltages, according to IEEE 802.3 standards.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Symbol	Parameter	Test Conditions		Min	Typ	Max	Unit
V_i	Input Voltage	V_o = –9V	I_o = 0 to 250 mA	4.50		15.75	V
V_o	Output Voltage	V_i = 4.5 to 15.75V	I_o = 0 to 250	–8.55	–9.00	–9.45	V
I_o	Output Current *	V_i = 4.5 to 15.75V		0		250	mA
δV_o	Line Regulation	δV_i = 4.5 to 15.75V	I_o = 250mA			5	mV
δV_o	Load Regulation	V_i = 4.5 to 15.75V	δI_o = 0 to 250mA			5	mV
η	Efficiency	V_i = 5.0V	I_o = 250mA	70	73		%
η	Efficiency	V_i = 12.0V	I_o = 250mA	75	80		%
V_{or}	Output Ripple Voltage	V_i = 5.0V	I_o = 250mA		7	10	mVrms
V_{or}	Output Ripple Voltage	V_i = 12.0V	I_o = 250mA		2	5	mVrms
I_{ir}	Input Reflected Current	V_i = 5.0V	I_o = 250mA		25	30	mApp
I_{ir}	Input Reflected Current	V_i = 12.0V	I_o = 250mA		2	5	mApp
V_{is}	Isolation Voltage			2500			Vdc
Tstg	Storage Temperature			–40		+85	°C
Top	Operating Temperature			0		+70	°C

* NOTE = When input voltage is low (5V) and the output current is less than 20mA, the output ripple voltage increases due to discontinuous operation

CONNECTION DIAGRAM AND MECHANICAL DATA



Dimensions in mm

bottom view