

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 ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V_i	Input Voltage	$V_o = -9\text{V}$ $I_o = 0$ 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	$\delta V_i = 4.5$ to 15.75V $I_o = 250\text{mA}$			5	mV
δV_o	Load Regulation	$V_i = 4.5$ to 15.75V $\delta I_o = 0$ to 250mA			5	mV
η	Efficiency	$V_i = 5.0\text{V}$ $I_o = 250\text{mA}$	70	73		%
η	Efficiency	$V_i = 12.0\text{V}$ $I_o = 250\text{mA}$	75	80		%
V_{or}	Output Ripple Voltage	$V_i = 5.0\text{V}$ $I_o = 250\text{mA}$		7	10	mVrms
V_{or}	Output Ripple Voltage	$V_i = 12.0\text{V}$ $I_o = 250\text{mA}$		2	5	mVrms
I_{ir}	Input Reflected Current	$V_i = 5.0\text{V}$ $I_o = 250\text{mA}$		25	30	mApp
I_{ir}	Input Reflected Current	$V_i = 12.0\text{V}$ $I_o = 250\text{mA}$		2	5	mApp
V_{is}	Isolation Voltage		2500			Vdc
T_{stg}	Storage Temperature		-40		+85	$^\circ\text{C}$
T_{op}	Operating Temperature		0		+70	$^\circ\text{C}$

* 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

