ACE7C2510R

Charge Pump DC-to-DC Voltage Converter

Description

ACE7C2510R is a charge pump DC-to-DC voltage converter using AL-gate CMOS technology and optimization design. It converters a 2.5V to 10V input to a corresponding -2.5V to -10V output using only two external capacitors, eliminating inductors and their associated cost, size and EMI. The on-board oscillator operates at a nominal frequency of 10KHz. Operation below 10 KHz (for lower supply current applications) is possible by connecting an external capacitor from OSC to ground.

Features

- Wide input voltage range: 2.5V~10V
- Low power supply: 40uA @5V input
- Converts +5V Logic supply to + 5V
- High ESD protection: up to 3kV
- Efficient voltage conversion: 99.9%
- Good power efficiency: 98%
- Compatible with RS232 negative power supply standard
- No Dx diode needed for high voltage operation
- Easy to use: only two external capacitors required

Application

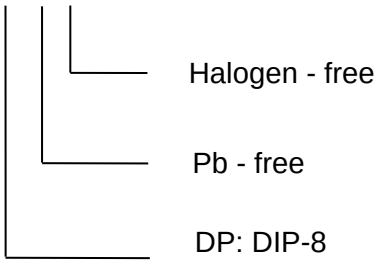
- Instrument product
- LCD Display Module
- Specially designed LCD display module

Absolute Maximum Rating

Parameter		Symbal	Ratings	Units
Input voltage		VIN	10.5V	V
LV PIN input voltage		VLX	-0.3～(V^++0.3)（if V^+<5.5V）	V
OSC PIN input voltage		VOSC	(V^+-5.5V)～(V^++0.3V)（if V^+>5.5V）	
LV PIN input voltage		ILV	20（if V^+>3.5V）	μA
Output Short Duration (V supply ≤5.5V)			∞	
Continuous Total Power Dissipation (TA≤75℃)	SOP-8	Pd	470	mW
	DIP-8	Pd	730	mW
Operating Ambient Temperature		TOpr	-40 to 85	℃
Storage Temperature		Tstg	-65 to 150	℃
Soldering temperature and time		Tsolder	260℃, 10s	

Ordering information

ACE7C2510R XX + H



Halogen - free

Pb - free

DP: DIP-8
FMA: SOP-8A
FMB: SOP-8B

Notes

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and shoes failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.