

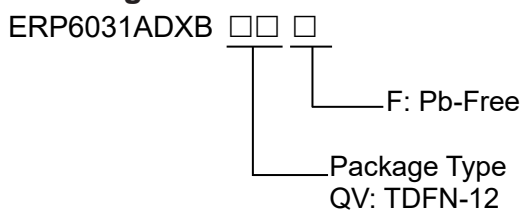
Dual Channel Charge Pump Power Solution For TFT LCD Panel

General Description

The ERP6031ADXB DC/DC converter integrates two low noise, high efficiency charge pumps for dual outputs, which consist of one inverting output and a step-up output. The device operates from 2.5V to 4.8V input, and provides a step-up output voltage (VP) of 2x the input voltage. The negative inverting output (VN) is -1x inverted from the positive output VP.

The ERP6031ADXB is available in a small TDFN-12 pin package that features a bottom side exposed thermal pad to provide optimal heat dissipation. The small package size and low external parts count make the device ideally suitable for TFT LCD applications of mobile products. The device is rated to operate from -40°C to +85°C ambient temperature range.

Ordering Information



Features

- 2.7V to 4.8V Input Supply Voltage Range
- Adaptive 1.5x/ 2x mode switchover for positive voltage and -1x mode for negative voltage
- VP output range: 5.4V to 5.9V
- VN output range: -5.4V to -5.9V
- High current output:
 - Vin=2.8V, Iout=±70mA;
 - Vin=3.3V, Iout=±90mA;
- Built in Power On Sequence
- TDFN-12 1.5mmX2.4mm Package

Applications

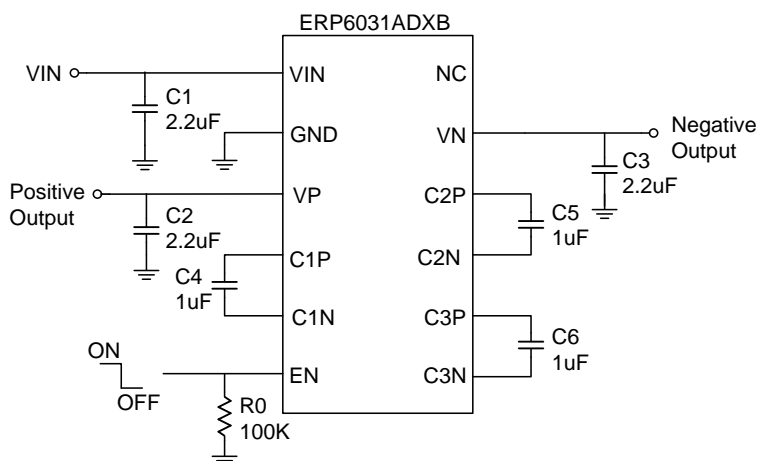
- Mobile Device, Smart Phone
- Portable Media Players/MP3 players
- Cellular and Smart mobile phone
- LCD Bias Power

Marking Information

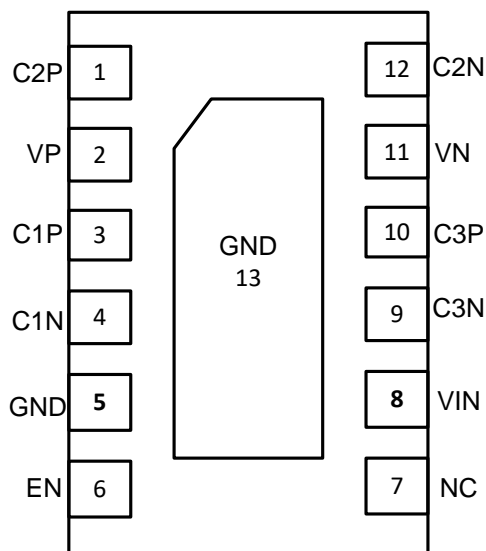
Device	Marking	Package	Shipping
ERP6031ADXB	ER01 YYMD	TDFN-12	3K/REEL

Marking indication:
Y: Production year **M**: Production Month **D**: Production date

Typical Application Circuit



Pin Configurations



Functional Pin Description

Pin No.	Pin Name	Description
1	C2P	Flying Capacitor 2 Positive Terminal (C5).
2	VP	Positive output pin.
3	C1P	Flying Capacitor 1 Positive Terminal (C4).
4	C1N	Flying Capacitor 1 Negative Terminal (C4).
6	EN	Device Enable pin.
7	NC	No connector.
8	VIN	Input Supply Voltage. Bypass VIN with a low ESR ceramic capacitor to GND.
9	C3N	Flying Capacitor 3 Negative Terminal (C6).
10	C3P	Flying Capacitor 3 Positive Terminal (C6).
11	VN	Negative output pin.
12	C2N	Flying Capacitor 2 Negative Terminal (C5).
5,13(Pad)	GND	Ground pin.