

## Product Overview

### NCP372: Positive and Negative Overvoltage Protection Circuit

For complete documentation, see the data sheet.

The NCP372 is an overvoltage with a reverse leakage cancellation from lithium battery. The system is both positive and negative overvoltage protected up to +28 V and down to -28 V. The wall adapter is disconnected from the system if the input voltage exceeds the overvoltage (OVLO) or undervoltage (UVLO) thresholds. At powerup, the Vout turns on 30 ms after the Vin exceeds the undervoltage threshold. Thanks to the NCP372 using an internal NMOS, the system cost and the PCB area of the application board are minimized. The NCP372 provides a negative going flag (FLAG(BAR)) output which alerts the system that a fault has occurred. In addition, the device has ESD protected input (15 kV Air) when bypassed with a 1.0  $\mu$ F or larger capacitor.

### Features

- Overvoltage Protection up to 28 V
- Overvoltage Protection down to -28 V
- On-Chip Low  $R_{DS(on)}$  NMOS Transistor: 135 mohm
- Overvoltage Lockout (OVLO)
- Undervoltage Lockout (UVLO)
- Alert FLAG(BAR) Output
- This is a Pb-Free Device
- Compliance to IEC61000-4-2 (Level 4), 8.0 kV (Contact), and 15 kV (Air)
- Soft start

### Applications

- Cell Phones, Camera Phones, Digital Still Cameras, Personal Digital Cell Phones, Camera Phones, Digital Still Cameras, Personal Digital

### Part Electrical Specifications

Product	Compliance	Status	V <sub>CC</sub> Min (V)	V <sub>CC</sub> Max (V)	P <sub>(AV)</sub> Max (W)	V <sub>IT+</sub> Typ (V)	V <sub>IT</sub> Typ (V)	I <sub>DDH</sub> Max ( $\mu$ A)	T <sub>A</sub> Min ( $^{\circ}$ C)	T <sub>A</sub> Max ( $^{\circ}$ C)	Package Type
NCP372MUAITXG	Pb-free	Active	-30	30	0.45	6.3	2.7	260	-40	85	LLGA-12
	Halide free										

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Created on: 4/26/2018