

Product Overview

NCP10970: Dual output HV Buck Switcher

For complete documentation, see the data sheet.

The NCP10970 is an auxiliary power solution which optimized for micro controller unit or DSP based system. It is included a high-voltage switcher for 9~16 VOUT, a linear regulator for 3.3 / 5.0 VOUT and over-temperature/ over-current protection on 16SOP. NCP1097x provide the best class standby power.

Features

- Highly Integrated multiple blocks
 - 670V Input Buck Switcher
 - 3.3 V/100 mA LDO (A1 option)
 - 5.0 V/100 mA LDO (B1 option)
- Dual Output Buck
- Standby mode by MCU
- Protections/Utility functions
 - Fault In/Out Pin – fast response comparator
 - Demagnetization detection
 - Short-circuit Protection on Buck,LDO
 - Internal thermal shutdown
- Patented VRAW generation for LDO Input

Benefits

- Small form factor design
- Low LDO power loss
- Low no load input power
- High system reliability
 - Flexible design (OTP/OCP)
 - Stable operation w/o CCM
 - Easy to pass safety certification
- Achieve Good Standby Power performance

Applications

- MCU, DSP based Lighting Driver/Ballast
- Industrial Multiple Output Aux power solution

End Products

- Lighting
- White Goods
- Power Supply

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Control Mode | f _{sw} Typ (kHz) | f _{jitter} Typ (%) | Stand-by Mode | R _{DS(on)} Typ (Ω) | V _{DSS} Max (V) | I _{peak} (mA) | HV Start-up Min (V) | DSS (mA) | UVLO | Short Circuit Protection | Over Power Compensation | Brown-out | Latch | Package Type |
|----------------|-------------------|------------------------|--------|--------------|---------------------------|-----------------------------|---------------|-----------------------------|--------------------------|------------------------|---------------------|----------|------|--------------------------|-------------------------|-----------|-------|--------------|
| NCP10970A1DR2G | 0.5733 | Pb-free Halide free | NEW | Current Mode | 65 | No | Yes | 18 | 670 | 350 | Yes | 4 | 7 | Yes | Yes | No | No | SOI C-16 NB |
| NCP10970B1DR2G | 0.5733 | Pb-free Halide free | NEW | Current Mode | 65 | No | Yes | 18 | 670 | 350 | Yes | 4 | 7 | Yes | Yes | No | No | SOI C-16 NB |

For more information please contact your local sales support at www.onsemi.com.

Created on: 8/19/2020