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UCC28700 High-side Buck Converter

| Designator | Quantity | Value | Description | PackageReference | PartNumber | Manufacturer | Alternate PartNumber | Alternate Manufacturer |
|------------|----------|--------|--|-------------------------|------------------|-------------------------|----------------------|------------------------|
| C1 | 1 | 10uF | CAP, AL, 10uF, 35V, +/-20%, TH | CAPPR2-5x11 | UVR1V100MDD1TA | Nichicon | | |
| C2 | 1 | 22pF | CAP, CERM, 22pF, 50V, +/-5%, C0G/NP0, 0603 | 0603 | 06035A220JAT2A | AVX | | |
| C3, C4 | 2 | 6.8uF | CAP, AL, 6.8uF, 400V, +/-20%, TH | 8x11 | 400AX6R8M8x11 | Rubycon | | |
| C5 | 1 | 82uF | CAP, AL, 82 uF, 63 V, +/- 20%, 0.51 ohm, TH | D6.3xL11mm | UPV1E820MGD1TD | Nichicon | | |
| D1 | 1 | 100V | Diode, Ultrafast, 100V, 0.15A, SOD-123 | SOD-123 | 1N4148W-7-F | Diodes Inc. | | |
| D2 | 1 | 600V | DIODE FAST REC 600V 1A DO214AC | SMA | ES1J-TP | Diodes Inc. | | |
| D3 | 1 | 600V | Diode, Switching-Bridge, 600 V, 1 A, MICRODIP_4 | MICRODIP_4 | MDB6S | Fairchild Semiconductor | | |
| D4 | 1 | 600V | Diode, Ultrafast, 600V, 1A, SMB | SMB | MURS160-13-F | Diodes Inc. | | |
| D6 | 1 | 20V | Diode, Zener, 20 V, 550 mW, SMB | SMB | 1SMB5932BT3G | ON Semiconductor | | |
| L1 | 1 | 1mH | Inductor, Unshielded Drum Core, Ferrite, 1mH, 0.25A, 4.38 ohm, TH | D6 x 8.5mm | 7447462102 | Würth Elektronik eiSos | | |
| L2 | 1 | 330uH | Inductor, Wirewound, Ferrite, 330 uH, 1.4 A, 0.3 ohm, TH | TH, Dia 10.5mm | 7447480331 | Würth Elektronik | | |
| Q1 | 1 | 600V | MOSFET N-CH 600V 1.3A TO252 | DPAK | AOD1N60 | AOS | | None |
| R1, R2 | 2 | 100k | RES, 100 k, 0.1%, 0.1 W, 0603 | 0603 | RG1608P-104-B-T5 | Susumu Co Ltd | | |
| R3 | 1 | 8.87k | RES, 8.87 k, 0.1%, 0.1 W, 0603 | 0603 | RT0603BRD078K87L | Yageo America | | |
| R4 | 1 | 511 | RES, 511 ohm, 1%, 0.1W, 0603 | 0603 | CRCW0603511RFKEA | Vishay-Dale | | |
| R5 | 1 | 3.0 | RES, 3.0, 5%, 0.75 W, AEC-Q200 Grade 0, 2010 | 2010 | CRCW20103R00JNEF | Vishay-Dale | | |
| R6 | 1 | 49.9k | RES, 49.9 k, 1%, 0.75 W, AEC-Q200 Grade 0, 2010 | 2010 | CRCW201049K9FKEF | Vishay-Dale | | |
| R7 | 1 | 2.00 | RES, 2.00, 1%, 0.75 W, AEC-Q200 Grade 0, 2010 | 2010 | CRCW20102R00FKEF | Vishay-Dale | | |
| R8, R9 | 2 | 3.3Meg | RES, 3.3Meg ohm, 5%, 0.25W, 1206 | 1206 | CRCW12063M30JNEA | Vishay-Dale | | |
| RF1 | 1 | 4.7 | RES, 4.7 ohm, 5%, 1W, Fusible, TH | Axial resistor | FKN1WSJR-52-4R7 | Yageo America | | |
| TP1, TP2 | 2 | Red | Test Point, Miniature, Red, TH | Red Miniature Testpoint | 5000 | Keystone | | |
| TP3, TP4 | 2 | Black | Test Point, TH, Miniature, Black | Keystone5001 | 5001 | Keystone | Equivalent | Any |
| U1 | 1 | | Constant-Voltage, Constant-Current Controller With Primary-Side Regulation, DBV0006A | DBV0006A | UCC28700DBVR | Texas Instruments | UCC28700DBVT | Texas Instruments |

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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