



### Bill of Materials for the LV5068VGEVB Evaluation Board

| Designator | Quantity | Description                      | Value       | Tolerance | Footprint     | Manufacturer              | Manufacturer Part Number | Substitution Allowed | Lead Free |
|------------|----------|----------------------------------|-------------|-----------|---------------|---------------------------|--------------------------|----------------------|-----------|
| U1         | 1        | Step Down Switching Controller   | -           | -         | SSOP16 225mil | ON Semiconductor          | LV5068V                  | No                   | yes       |
| L1         | 1        | Inductor                         | 10uH / 4.3A | 10%       | -             | TOKO INC                  | 1217AS-H-100M            | Yes                  | Yes       |
| R1         | 1        | Output current sensing resistor  | 30kohms     | 1%        | 3216          | Panasonic                 | ERJ8BWR030V              | Yes                  | Yes       |
| R2         | 1        | Overcurrent limit set resistor   | 2.7kohms    | 5%        | 1608          | KOA                       | RK73B1JTDD272J           | Yes                  | Yes       |
| R3         | 1        | Resistor for Pull-up VIN         | 1Mohms      | 5%        | 1608          | KOA                       | RK73B1JTDD105J           | Yes                  | Yes       |
| R4         | 1        | Setting Vout Voltage resistor    | 0ohms       | -         | 1608          | KOA                       | RK73Z1JTDD               | Yes                  | Yes       |
|            | 1        |                                  | 470kohms    | 1%        | 1608          | KOA                       | RK73H1JTDD4703F          | Yes                  | Yes       |
| R5         | 1        |                                  | 160kohms    | 1%        | 1608          | KOA                       | RK73H1JTDD1603F          | Yes                  | Yes       |
| R6         | 1        | Resistor for Comparator voltage  | 82kohms     | 5%        | 1608          | KOA                       | RK73B1JTDD823J           | Yes                  | Yes       |
| R7         | 1        | Resistor to set Frequency        | 470kohms    | 5%        | 1608          | KOA                       | RK73B1JTDD474J           | Yes                  | Yes       |
| R8         | 1        | Resistor for Pull-down GND       | 0ohms       | -         | 1608          | KOA                       | RK73Z1JTDD               | Yes                  | Yes       |
| R9         | 1        | Resistor for Pull-up VIN         | 100kohms    | 5%        | 1608          | KOA                       | RK73B1JTDD104J           | Yes                  | Yes       |
| C1         | 2        | Capacitor for Vin stability      | 10uF / 35V  | 10%       | 3225          | Murata Manufacturing      | GRM32ER7YA106K           | Yes                  | Yes       |
|            | 1        | Capacitor for Vout stability     | 0.1uF / 50V | 10%       | 1608          | Murata Manufacturing      | GRM188B31H104K           | Yes                  | Yes       |
| C2         | 1        |                                  | 220uF / 10V | 20%       | -             | SUN Electronic Industries | 10ME220SWG               | Yes                  | Yes       |
| C3         | 1        | Capacitor for VPDR stability     | 1uF / 25V   | 10%       | 1608          | Murata Manufacturing      | GRM188B31E105K           | Yes                  | Yes       |
| C5         | 1        | Capacitor for VREF stability     | 1uF / 25V   | 10%       | 1608          | Murata Manufacturing      | GRM188B31E105K           | Yes                  | Yes       |
| C6         | 1        | Capacitor for Comparator voltage | 4.7nF / 50V | 10%       | 1608          | Murata Manufacturing      | GRM188B11H472K           | Yes                  | Yes       |
| C7         | 1        | Capacitor to set SS time         | 2.2nF / 50V | 10%       | 1608          | Murata Manufacturing      | GRM188B11H222K           | Yes                  | Yes       |
| C8         | 1        | Capacitor to set HICCUP time     | 22nF / 50V  | 10%       | 1608          | Murata Manufacturing      | GRM188B11E223K           | Yes                  | Yes       |
| C9         | -        | Blank                            | -           | -         | -             | -                         | -                        | -                    | -         |
| D1         | 1        | Rectifier diode                  | -           | -         | -             | ON Semiconductor          | MBRS540T3                | Yes                  | Yes       |
| Q1         | 1        | Pch MOSFET                       | -           | -         | -             | ON Semiconductor          | CPH6354                  | Yes                  | Yes       |