



### Calculations and Component Selection (Charging Current-3A, Cell Count-2)

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|---|--------------------|---------------------------------|
| 1. Charge Controller IC                             | LTC4006EGN-6#PBF   | datasheet: <a href="#">link</a> |
| 2. R7: 0.033 Ohm / 0.5W                             | UR73VD2ATTD33L0F   | datasheet: <a href="#">link</a> |
| 3. R3: ~309k / 0.25W                                | RK73H2ATTD3093F    | datasheet: <a href="#">link</a> |
| 4. R4: 6.04k / 0.25W/ 1%                            | RK73H2ATTD6041F    | datasheet: <a href="#">link</a> |
| 5. C4: 0.56uF / 16V                                 | GRM219R71C564KA01D | datasheet: <a href="#">link</a> |
| 6. C1: 10uF / 35V                                   | T495D106K035AHE125 | datasheet: <a href="#">link</a> |
| 7. C7: 33uF / 16V                                   | T495C336K016ATE200 | datasheet: <a href="#">link</a> |
| 8. L1: 22uH   | ASPI-1306T-220M-T  | datasheet: <a href="#">link</a> |
| 9. Q1, Q2   | SI7540ADP-T1-GE3   | datasheet: <a href="#">link</a> |
| 10. C5: 15nF / 16V                                  | C0805C153F4JAC7800 | datasheet: <a href="#">link</a> |
| 11. R5: 5k / 0.1W/ 0.1%                             | RT0603BRE075KL     | datasheet: <a href="#">link</a> |
| 12. R6: 0.033 Ohm / 0.5W same as R7                 |                    |                                 |
| 13. NTC   | ACC024             | datasheet: <a href="#">link</a> |
| TLOW = 0°C THIGH = 50°C                             |                    |                                 |
| RTH = 10k @ 20°C                                    |                    |                                 |
| RTH (low) = 32.65k @ 0°C RTH (high) = 3.603k @ 50°C |                    |                                 |
| 14. R2: 24.299k ~ 24k                               | RK73H2ATTD2402F    | datasheet: <a href="#">link</a> |
| 15. R2A: 95.3k                                      | RK73H2ATTD9532F    | datasheet: <a href="#">link</a> |
| 16. C3: 0.57uF ~ 0.56uF Same as C4                  |                    |                                 |
| 17. R1: 510k  | ERJ-6GEYJ514V      | datasheet: <a href="#">link</a> |
| 18. LED   | L513LED            | datasheet: <a href="#">link</a> |
| 19. LED RES: 330 Ohm                                | RK73B2ATTD331J     | datasheet: <a href="#">link</a> |
| 20. 5V Reg  | AS78L05RTR-G1      | datasheet: <a href="#">link</a> |
| 21. Reg Cap1: 0.33uF                                | CL21B334KBFNNNE    | datasheet: <a href="#">link</a> |
| 22. Reg Cap2: 0.1uF                                 | CL21B104KBCNNNC    | datasheet: <a href="#">link</a> |
| 23. Q3  | DMP3085LSS-13      | datasheet: <a href="#">link</a> |

24. D1	MBR130T1G	datasheet: <a href="#">link</a>
25. C6: 20uF / 50V	C3216X5R1V226M160AC	datasheet: <a href="#">link</a>
26. NTC Connector, ACP Connector	B2B-XH-A(LF)(SN)	datasheet: <a href="#">link</a>
27. DC INPUT Connector	282834-2	datasheet: <a href="#">link</a>