

Charger PCB

5V Power supply

Part	Description	Digikey part number
U2	LM340	LM340AT-5.0-ND
C1	.33uF 50V electrolytic	P4669-ND
C2	.1uF 35V electrolytic	P4525-ND
DB2	40V 2A	1N5400

Charger

Part	Description	Digikey part number
U1	BQ2031	na
DB1	40V 5A	BYV32E-200
R1	10K 1/4 watt 5%	10.0KXBK-ND
R2	10K 1/4 watt 5%	10.0KXBK-ND
R6	10K 1/4 watt 5%	10.0KXBK-ND
R3	1K 1/4 watt 5%	1.00KXBK-ND
R4	1K 1/4 watt 5%	1.00KXBK-ND
R5	1K 1/4 watt 5%	1.00KXBK-ND
R9	100K 1/4 watt 1%	100KXBK-ND
Rv	120K 1/4 watt 1%	P120KCACT-ND
Rt1	100K 1/4 watt 1%	100KXBK-ND
Rt2	100K 1/4 watt 1%	100KXBK-ND
Rsns	1/8 ohm 10 watt 1%	ALSR5F-.25-ND
Rb1	564K 1/4 watt 1%	562KXBK-ND
Rb2	50K 1/4 watt 1%	49.9KXBK-ND
Rb3	413K 1/4 watt 1%	412KXBK-ND
C4	0.1uF 10V ceramic	P4525 - ND
Cpwm	1nF 10V ceramic	1010PHCT-ND
Cv	10nF 10V cer	445-2602-ND
Ci	10nF 10V cer	445-2602-ND
Cf	10nF 10V cer	445-2602-ND
Co	47uF 63V electrolytic low ESR	P10340-ND
CI	47uF 63V electrolytic low ESR	P10340-ND
LEDs	Panel mount - All Electronics	
Dc	60V 6 A TO220	8TQ060PBF-ND
Q3	FET OnSemi MTP10N10EL	MTP10N10EL-ND
L	300uH 5A	coilcraft

Use two 1/4 ohm in
parallell to get 1/8 ohm