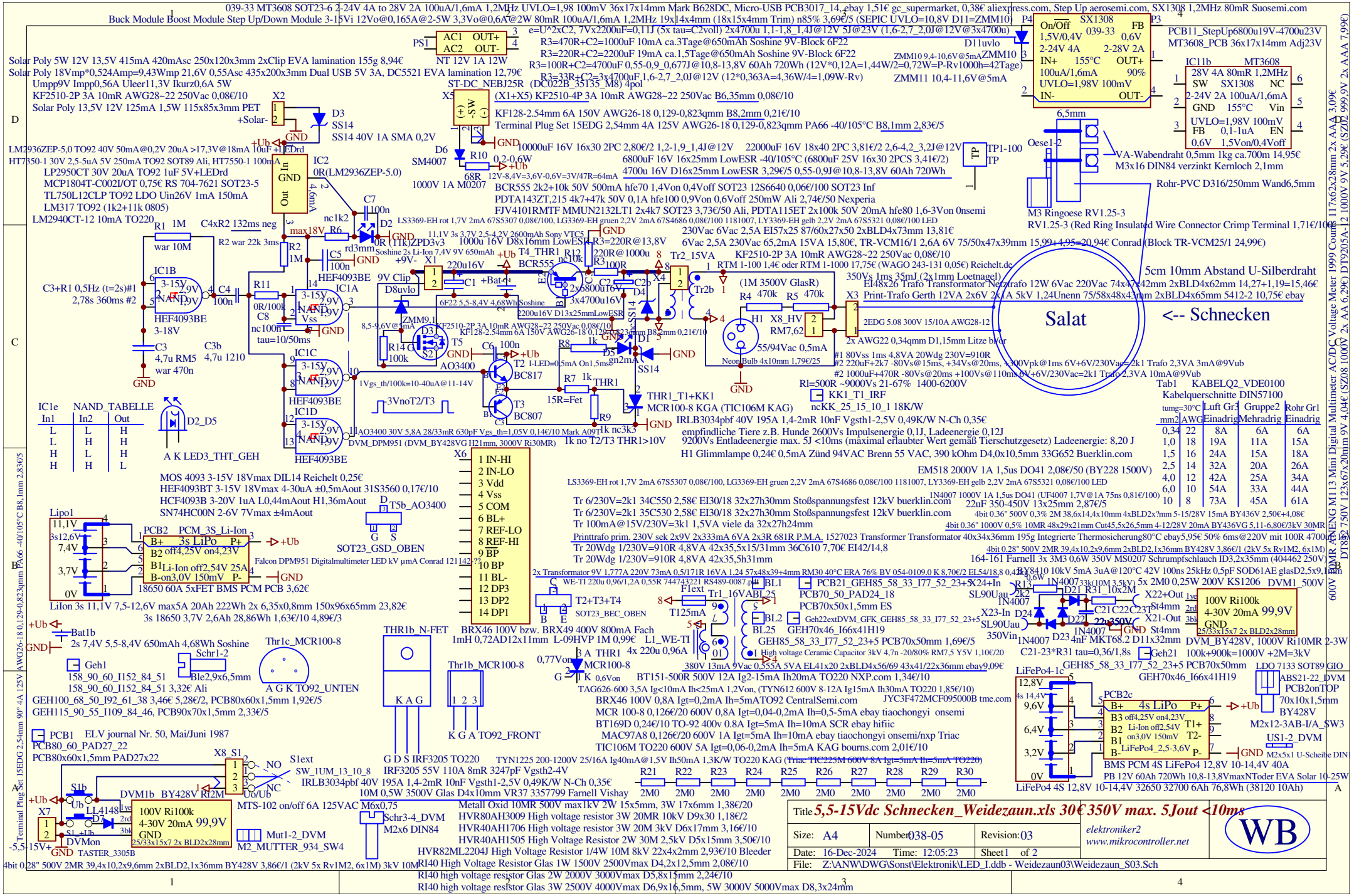
039-33 MT3608 SOT23-6 2-24V 4A to 28V 2A 100uA/1,6mA 1,2MHz UVLO=1,98 100mV 36x17x14mm Mark B628DC, Micro-USB PCB3017_14, ebay 1,51€ gc_supermarket, 0,38€ aliexpress.com, Step Up aerosemi.com, SX1308 1,2MHz 80mR Suosemi.com
Buck Module Boost Module Step Up/Down Module 3-15Vi 12Vo@0,165A@2-5W 3,3Vo@0,6A@2W 80mR 100uA/1,6mA 1,2MHz 19x14x4mm (18x15x4mm Trim) n85% 3,69€/5 (SEPIC UVLO=10,8V D11=ZMM10)
Solar Poly 5W 12V 13,5V 415mA 420mAsc 250x120x3mm 2xClip EVA lamination 155g 8,94€
Solar Poly 18Vmp*0,524Amp=9,43Wmp 21,6V 0,55Asc 435x200x3mm Dual USB 5V 3A, DC5521 EVA lamination 12,79€
Umpp9V Impp0,56A Uleer11,3V Ikurz0,6A 5W
KF2510-2P 3A 10mR AWG28~22 250Vac 0,08€/10
Solar Poly 13,5V 12V 125mA 1,5W 115x85x3mm PET
LM2936ZEP-5,0 TO92 40V 50mA@0,2V 20uA >17,3V@18mA 10uF +LEDrd
HT7350-1 30V 2,5-5uA 5V 250mA TO92 SOT89 Ali, HT7550-1 100mA
LP2950CT 30V 20uA TO92 1uF 5V+LEDrd
MCP1804T-C002I/OT 0,75€ RS 704-7621 SOT23-5
TL750L12CLP TO92 LDO Uin26V 1mA 150mA
LM317 TO92 (1k2+11k 0805)
LM2940CT-12 10mA TO220
e=U^2xC2, 7Vx2200uF=0,11J (5x tau=C2voll) 2x4700u 1,1-1,8_1,4J@12V 5J@23V (1,6-2,7_2,0J@12V@3x4700u)
R3=470R+C2=1000uF 10mA ca.3Tage@650mAh Soshine 9V-Block 6F22
R3=220R+C2=2200uF 19mA ca.1,5Tage@650mAh Soshine 9V-Block 6F22
R3=100R+C2=4700uF 0,55-0,9_0,677J@10,8-13,8V 60Ah 720Wh (12V*0,12A=1,44W/2=0,72W=P-Rv1000h=42Tage)
R3=33R+C2=3x4700uF 1,6-2,7_2,0J@12V (12*0,363A=4,36W/4=1,09W-Rv)
ST-DC_NEBJ25R (DC022B_35135_M8) 4pol
(X1+X5) KF2510-4P 3A 10mR AWG28~22 250Vac B6,35mm 0,08€/10
KF128-2.54mm 6A 150V AWG26-18 0,129-0,823qmm B8,2mm 0,21€/10
Terminal Plug Set 15EDG 2,54mm 4A 125V AWG26-18 0,129-0,823qmm PA66 -40/105°C B8,1mm 2,83€/5
10000uF 16V 16x30 2PC 2,80€/2 1,2-1,9_1,4J@12V 22000uF 16V 18x40 2PC 3,81€/2 2,6-4,2_3,2J@12V
6800uF 16V 16x25mm LowESR -40/105°C (6800uF 25V 16x30 2PCS 3,41€/2)
4700u 16V D16x25mm LowESR 3,29€/5 0,55-0,9J@10,8-13,8V 60Ah 720Wh
BCR555 2k2+10k 50V 500mA hfe70 1,4Von 0,4Voff SOT23 12S6640 0,06€/100 SOT23 Inf
PDTA143ZT,215 4k7+47k 50V 0,1A hfe100 0,9Von 0,6Voff 250mW Ali 2,74€/50 Nexperia
FJV4101RMTF MMUN2132LT1 2x4k7 SOT23 3,73€/50 Ali, PDTA115ET 2x100k 50V 20mA hfe80 1,6-3Von 0nsemi
LS3369-EH rot 1,7V 2mA 67S5307 0,08€/100, LG3369-EH gruen 2,2V 2mA 67S4686 0,08€/100 1181007, LY3369-EH gelb 2,2V 2mA 67S5321 0,08€/100 LED
11,1V 3s 3,7V 2,5-4,2V 2600mAh Sony VTC5
1000u 16V D8x16mm LowESR
Soshine 2s Li-Ion 7,4V 9V 650mAh
230Vac 6Vac 2,5A EI57x25 87/60x27x50 2xBLD4x73mm 13,81€
6Vac 2,5A 230Vac 65,2mA 15VA 15,80€, TR-VCM16/1 2,6A 6V 75/50x47x39mm 15,99+4,95=20,94€ Conrad (Block TR-VCM25/1 24,99€)
KF2510-2P 3A 10mR AWG28~22 250Vac 0,08€/10
RTM 1-100 1,4€ oder RTM 1-1000 17,75€ (WAGO 243-131 0,05€) Reichelt.de
350Vs 1ms 35mJ (2x1mm Loetnagel)
EI48x26 Trafo Transformator Netztrafo 12W 6Vac 220Vac 74x47x42mm 2xBLD4x62mm 14,27+1,19=15,46€
X3 Print-Trafo Gerth 12VA 2x6V 2x1A 5kV 1,24Unenn 75/58x48x42mm 2xBLD4x65mm 5412-2 10,75€ ebay
2EDG 5.08 300V 15/10A AWG28-12
2x AWG22 0,34qmm D1,15mm Litze blue
Salat
<-- Schnecken
5cm 10mm Abstand U-Silberdraht
Oese1-2
6,5mm
M3 Ringoese RV1.25-3
RV1.25-3 (Red Ring Insulated Wire Connector Crimp Terminal 1,71€/100
VA-Wabendraht 0,5mm 1kg ca.700m 14,95€
M3x16 DIN84 verzinkt Kernloch 2,1mm
Rohr-PVC D316/250mm Wand6,5mm
SX1308 1,2MHz 80mR 1,2MHz UVLO=1,98 100mV 36x17x14mm Mark B628DC, Micro-USB PCB3017_14, ebay 1,51€ gc_supermarket, 0,38€ aliexpress.com, Step Up aerosemi.com, SX1308 1,2MHz 80mR Suosemi.com
On/Off SX1308 FB
1,5V/0,4V 039-33 0,6V
2-24V 4A 2-28V 2A
IN+ 155°C OUT+
100uA/1,6mA 90%
UVLO=1,98V 100mV
IN- OUT-
PCB11_StepUp6800u19V-4700u23V
MT3608_PCB 36x17x14mm Adj23V
IC11b MT3608
28V 4A 80mR 1,2MHz
SW SX1308 NC
2-24V 2A 100uA/1,6mA
GND 155°C Vin
UVLO=1,98V 100mV
FB 0,1-1uA EN
0,6V 1,5Von/0,4Voff
D11uvlo
ZMM10 9,4-10,6V@5mA ZMM10
ZMM11 10,4-11,6V@5mA
TP1-100
TP
LM2936ZEP-5,0 TO92 40V 50mA@0,2V 20uA >17,3V@18mA 10uF +LEDrd
HT7350-1 30V 2,5-5uA 5V 250mA TO92 SOT89 Ali, HT7550-1 100mA
LP2950CT 30V 20uA TO92 1uF 5V+LEDrd
MCP1804T-C002I/OT 0,75€ RS 704-7621 SOT23-5
TL750L12CLP TO92 LDO Uin26V 1mA 150mA
LM317 TO92 (1k2+11k 0805)
LM2940CT-12 10mA TO220
IC2 0R(LM2936ZEP-5.0)
4,6mA
C7 100n
D2 LS3369-EH rot 1,7V 2mA 67S5307 0,08€/100, LG3369-EH gruen 2,2V 2mA 67S4686 0,08€/100 1181007, LY3369-EH gelb 2,2V 2mA 67S5321 0,08€/100 LED
D3 SS14
SS14 40V 1A SMA 0,2V
D6 SM4007
1000V 1A M0207
R10 0,2-0,6W
68R 12V-8,4V=3,6V-0,6V=3V/47R=64mA
R1 1M
war 10M
C4x R2 132ms neg
R2 war 22k 3ms
R2 1M
C5 100n
HEF4093BE
IC1B
IC1A
IC1C
IC1D
C4 100n
R11 0R/100k
C8 nc100n
tau=10/50ms
C3 4,7u RM5
war 470n
C3b 4,7u 1210
R6 0R (11k)ZPD3v3
rd3mm
nc1k2
max18V
9V Clip
D8uvlo
ZMM9,1
8,5-9,6V@5mA
D3 KF2510-2P 3A 10mR AWG28~22 250Vac 0,08€/10
KF128-2.54mm 6A 150V AWG26-18 0,129-0,823qmm B8,2mm 0,21€/10
R14 100k
T5 AO3400
C6 100n
R8 1k
D5 gn2mA
SS14
T2 BC817
R7 1k
THR1
15R=Fet
T3 BC807
R9 1k nc3k3
C3
1k no T2/T3 THR1>10V
1Vgs_th/100k=10-40uA@11-14V
3VnoT2/T3
AO3400 30V 5,8A 28/33mR 630pF Vgs_th=1,05V 0,14€/10 Mark A09T
DVM_DPM951 (DVM_BY428VG H21mm, 3000V Ri30MR)
HEF4093BE 9V-15V 18Vmax DIL14 Reichelt 0,25€
HEF4093BT 3-15V 18Vmax 4-30uA ±0,5mAout 31S3560 0,17€/10
HCF4093B 3-20V 1uA L0,44mAout H1,36mAout
SN74HC00N 2-6V 7Vmax ±4mAout
IC1e NAND_TABELLE
In1 In2 Out
L L H
L H H
H L H
H H L
D2_D5
A K LED3_THT_GEH
X6
1 IN-HI
2 IN-LO
3 Vdd
4 Vss
5 COM
6 BL+
7 REF-LO
8 REF-HI
9 BP
10 BP
11 BL-
12 DP3
13 DP2
14 DP1
Tr2_15VA
(1M 3500V GlasR)
R4 470k R5 470k
Tr2b
H1 X8_HV
RM7,62
55/94Vac 0,5mA
Neon Bulb 4x10mm 1,79€/25
#1 80Vss 1ms 4,8VA 20Wdg 230V=910R
#2 220uF+2k7 -80Vs@15ms, +34Vs@20ms, +300Vpk@1ms 6V+6V/230Vac=2k1 Trafo 2,3VA 3mA@9Vub
#2 1000uF+470R -80Vs@20ms +100Vs@110ms 6V+6V/230Vac=2k1 Trafo 2,3VA 10mA@9Vub
Rl=500R ~9000Vs 21-67% 1400-6200V
KK1_T1_IRF
ncKK_25_15_10_1 18K/W
THR1_T1+KK1
MCR100-8 KGA (TIC106M KAG)
IRLB3034pbf 40V 195A 1,4-2mR 10nF Vgsth1-2,5V 0,49K/W N-Ch 0,35€
empfindliche Tiere z.B. Hunde 2600Vs Impulsenergie 0,1J, Ladeenergie 0,12J
9200Vs Entladeenergie max. 5J <10ms (maximal erlaubter Wert gemäß Tierschutzgesetz) Ladeenergie: 8,20 J
H1 Glimmlampe 0,24€ 0,5mA Zünd 94VAC Brenn 55 VAC, 390 kOhm D4,0x10,5mm 33G652 Buerklin.com
EM518 2000V 1A 1,5us DO41 2,08€/50 (BY228 1500V)
LS3369-EH rot 1,7V 2mA 67S5307 0,08€/100, LG3369-EH gruen 2,2V 2mA 67S4686 0,08€/100 1181007, LY3369-EH gelb 2,2V 2mA 67S5321 0,08€/100 LED
1N4007 1000V 1A 1,5us DO41 (UF4007 1,7V@1A 75ns 0,81€/100)
Tr 6/230V=2k1 34C550 2,58€ EI30/18 32x27h30mm Stoßspannungsfest 12kV buerklin.com
22uF 350-450V 13x25mm 2,87€/5
Tr 6/230V=2k1 35C530 2,58€ EI30/18 32x27h30mm Stoßspannungsfest 12kV buerklin.com
4bit 0.36" 500V 0,3% 2M 38,6x14,4x10mm 4xBLD2x?mm 5-15/28V 15mA BY436V 2,50€+4,08€
Tr 100mA@15V/230V=3k1 1,5VA viele da 32x27h24mm
4bit 0.36" 1000V 0,5% 10MR 48x29x21mm Cut45,5x26,5mm 4-12/28V 20mA BY436VG 5,11-6,80€/3kV 30MR
Printtrafo prim. 230V sek 2x9V 2x333mA 6VA 2x3R 681R P.M.A. 1527023 Transformer Transformator 40x34x36mm 195g Integrierte Thermosicherung80°C ebay5,95€ 50% 6ms@220V mit 100R 4700uF
Tr 20Wdg 1/230V=910R 4,8VA 42x35,5x15/31mm 36C610 7,70€ EI42/14,8
Tr 20Wdg 1/230V=910R 4,8VA 42x35,5h31mm
4bit 0.28" 500V 2MR 39,4x10,2x9,6mm 2xBLD2,1x36mm BY428V 3,86€/1 (2kV 5x Rv1M2, 6x1M)
164-161 Farnell 3x 3M3 0,6W 350V MS0207 Schrumpfschlauch ID3,2x35mm (404462 250V)
2x Transformator 9V 1,777A 220V 73mA 0,5/171R 16VA 1,24 57x48x39+4mm RM30 40°C ERA 76% BV 054-0109.0 K 8,70€/2 EL54/18,8 0,4
BY8410 10kV 5mA 3uA@120°C 42V 100ns 25kHz 0,5pF SOD61AE glasD2,5x9,1mm
5x 2M0 0,25W 200V KS1206 DVM1_500V
100V Ri100k
4-30V 20mA 99,9V
GND
25/33x15x7 2x BLD2x28mm
DVM_BY428V, 1000V Ri10MR 2-3W
C21-23*R31 tau=0,36/1,8s
Geh21 100k+900k=1000V +2M=3kV
GEH85_58_33_I77_52_23+5 PCB70x50mm
GEH70x46_I66x41H19
LDO 7133 SOT89 GIO
ABS21-22_DVM
PCB2onTOP
70x10x1,5mm
BY428V
M2x12-3AB-I/A_SW3
US1-2_DVM
M2x5x1 U-Scheibe DIN
Lipo1
11,1V
3s12,6V
7,4V
3,7V
0V
PCB2 PCM_3S_Li-Ion
B+ 3s LiPo P+
B2 off4,25V on4,23V
B1 Li-Ion off2,54V 25A
B- on3,0V 150mV P-
18650 60A 5xFET BMS PCM PCB 3,62€
LiIon 3s 11,1V 7,5-12,6V max5A 20Ah 222Wh 2x 6,35x0,8mm 150x96x65mm 23,82€
3s 18650 3,7V 2,6Ah 28,86Wh 1,63€/10 4,89€/3
Falcon DPM951 Digitalmultimeter LED kV µmA Conrad 121142-??
SOT23_GSD_OBEN
T5b_AO3400
Bat1b
2s 7,4V 5,5-8,4V 650mAh 4,68Wh Soshine
Geh1
158_90_60_I152_84_51
158_90_60_I152_84_51 3,32€ Ali
Schr1-2
Ble2,9x6,5mm
Thr1c_MCR100-8
A G K TO92_UNTEN
GEH100_68_50_I92_61_38 3,46€ 5,28€/2, PCB80x60x1,5mm 1,92€/5
GEH115_90_55_I109_84_46, PCB90x70x1,5mm 2,33€/5
THR1b_N-FET
K A G
Thr1b_MCR100-8
1 2 3
K G A TO92_FRONT
BRX46 100V bzw. BRX49 400V 800mA Fach
1mH 0,72AD12x11mm L-09HVP 1M 0,99€ L1_WE-TI 4x 220u 0,96A
T2+T3+T4
SOT23_BEC_OBEN
Flext
T125mA
Tr1_16VABL25
BL1
BL2
BL25
PCB21_GEH85_58_33_I77_52_23+5
PCB70_50_PAD24_18
PCB70x50x1,5mm ES
Geh22extDVM_GFK_GEH85_58_33_I77_52_23+5
GEH70x46_I66x41H19
GEH85_58_33_I77_52_23+5 PCB70x50mm 1,69€/5
1 High voltage Ceramic Capacitor 3kV 4,7n -20/80% RM7,5 Y5V 1,10€/20
380V 13mA 9Vac 0,555A 5VA EL41x20 2xBLD4x56/69 43x41/22x36mm ebay9,09€
0,77Von
MCR100-8
BT151-500R 500V 12A Ig2-15mA Ih20mA TO220 NXP.com 1,34€/10
TAG626-600 3,5A Ig<10mA Ih<25mA 1,2Von, (TYN612 600V 8-12A Ig15mA Ih30mA TO220 1,85€/10)
BRX46 100V 0,8A Igt=0,2mA Ih=5mATO92 CentralSemi.com
JYC3F472MCF095000B tme.com
MCR 100-8 0,126€/20 600V 0,8A Igt=0,04-0,2mA Ih=0,5-5mA ebay tiaochongyi onsemi
BT169D 0,24€/10 TO-92 400v 0.8A Igt=5mA Ih=10mA SCR ebay hifiic
MAC97A8 0,126€/20 600V 1A Igt=5mA Ih=10mA ebay tiaochongyi onsemi/nxp Triac
TIC106M TO220 600V 5A Igt=0,06-0,2mA Ih=5mA KAG bourns.com 2,01€/10
LiFePo4-1c
12,8V
4s 14,4V
9,6V
6,4V
3,2V
0V
LiFePo4 4S 12,8V 10-14,4V 32650 32700 6Ah 76,8Wh (38120 10Ah)
PCB2c
B+ 4s LiPo P+
B3 off4,25V on4,23V
B2 Li-Ion off2,54V
B1 on3,0V 150mV
B- LiFePo4_2,5-3,6V
T1+
T2-
P-
BMS PCM 4S LiFePo4 12,8V 10-14,4V 40A
PB 12V 60Ah 720Wh 10,8-13,8VmaxNToder EVA Solar 10-25W
PCB1 ELV journal Nr. 50, Mai/Juni 1987
PCB80_60_PAD27_22
PCB80x60x1,5mm PAD27x22
X8_S1
S1ext
SW_1UM_13_10_8
IRLB3034pbf 40V 195A 1,4-2mR 10nF Vgsth1-2,5V 0,49K/W N-Ch 0,35€
10M 0,5W 3500V Glas D4x10mm VR37 3357799 Farnell Vishay
S1b
DVM1b BY428V RI2M
MTS-102 on/off 6A 125VAC M6x0,75
Schr3-4_DVM
M2x6 DIN84
X7
S1_+Ub
DVMon
TASTER_3305B
LL4148
D7
100V Ri100k
4-30V 20mA 99,9V
GND
25/33x15x7 2x BLD2x28mm
Mut1-2_DVM
M2_MUTTER_934_SW4
-5,5-15V+
TYN1225 200-1200V 25/16A Ig40mA@1,5V Ih50mA 1,3K/W TO220 KAG (Triac TIC225M 600V 8A Igt=5mA Ih=5mA TO220)
G D S IRF3205 TO220
IRF3205 55V 110A 8mR 3247pF Vgsth2-4V
R21 R22 R23 R24 R25 R26 R27 R28 R29 R30
2M0 2M0 2M0 2M0 2M0 2M0 2M0 2M0 2M0 2M0
Metall Oxid 10MR 500V max1kV 2W 15x5mm, 3W 17x6mm 1,38€/20
HVR80AH3009 High voltage resistor 3W 20MR 10kV D9x30 1,18€/2
HVR40AH1706 High voltage resistor 3W 20M 3kV D6x17mm 3,16€/10
HVR40AH1505 High Voltage Resistor 2W 30M 2,5kV D5x15mm 3,50€/10
HVR82ML2204J High Voltage Resistor 1/4W 10M 8kV 22x4x2mm 2,93€/10 Bleeder
RI40 High Voltage Resistor Glas 1W 1500V 2500Vmax D4,2x12,5mm 2,08€/10
RI40 high voltage resistor Glas 2W 2000V 3000Vmax D5,8x15mm 2,24€/10
RI40 high voltage resistor Glas 3W 2500V 4000Vmax D6,9x16,5mm, 5W 3000V 5000Vmax D8,3x24mm
Tab1 KABELQ2_VDE0100
Kabelquerschnitte DIN57100
tumg=30°C Luft Gr3 Gruppe2 Rohr Gr1
mm2 AWG Einadrig Mehradrig Einadrig
0,34 22 8A 6A 6A
1,0 18 19A 11A 15A
1,5 16 24A 15A 18A
2,5 14 32A 20A 26A
4,0 12 42A 25A 34A
6,0 10 54A 33A 44A
10 8 73A 45A 61A
Title 5,5-15Vdc Schnecken_Weidezaun.xls 30€ 350V max. 5Jout <10ms
Size: A4 Number 038-05 Revision: 03
Date: 16-Dec-2024 Time: 12:05:23 Sheet 1 of 2
File: Z:\ANW\DWG\Sonst\Elektronik\LED_I.ddb - Weidezaun03\Weidezaun_S03.Sch
elektroniker2
www.mikrocontroller.net
WB
600V 10MR ANENG M113 Mini Digital Multimeter AC/DC Voltage Meter 1999 Count 117x62x28mm 2x AAA 3,09€
DT9205A-12 1000V 9V 5,29€ (SZ02 999,9V 2x AAA 7,99€)
DT830D 750V 123x67x20mm 9V 4,04€ (SZ08 1000V 2x AA 6,29€)
4bit 0.28" 500V 2MR 39,4x10,2x9,6mm 2xBLD2,1x36mm BY428V 3,86€/1 (2kV 5x Rv1M2, 6x1M) 3kV 10MR
Terminal Plug Set 15EDG 2,54mm 90° 4A 125V AWG26-18 0,129-0,823qmm PA66 -40/105°C B8,1mm 2,83€/5