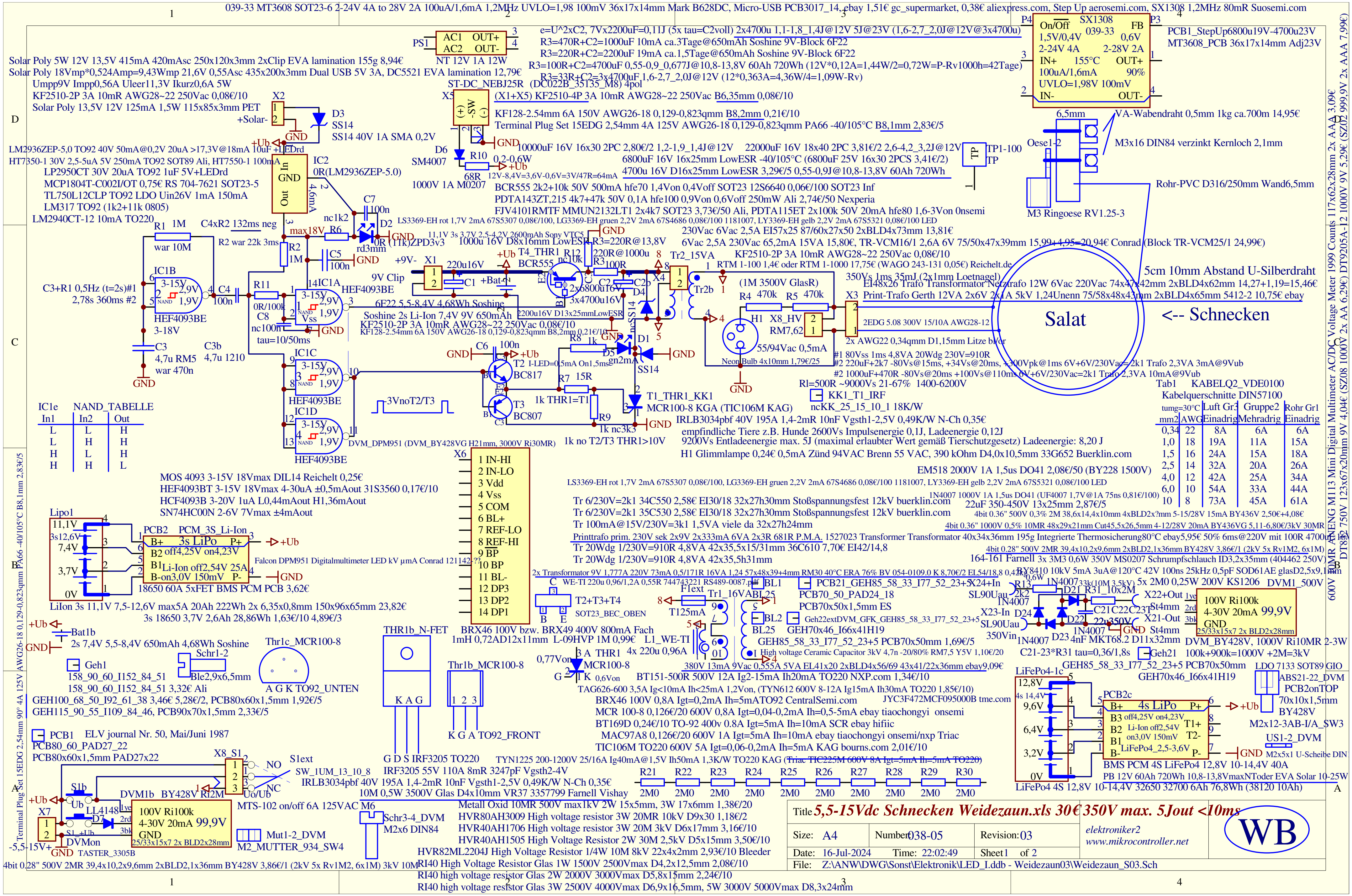
039-33 MT3608 SOT23-6 2-24V 4A to 28V 2A 100uA/1,6mA 1,2MHz UVLO=1,98 100mV 36x17x14mm Mark B628DC, Micro-USB PCB3017_14, ebay 1,51€ gc_supermarket, 0,38€ aliexpress.com, Step Up aerosemi.com, SX1308 1,2MHz 80mR Suosemi.com
PS1 AC1 AC2 OUT+ OUT- NT 12V 1A 12W
e=U^2xC2, 7Vx2200uF=0,11J (5x tau=C2voll) 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)
SX1308 039-33 On/Off 1,5V/0,4V 2-24V 4A IN+ 155°C 100uA/1,6mA UVLO=1,98V 100mV IN- FB 0,6V 2-28V 2A OUT+ 90% OUT-
PCB1_StepUp6800u19V-4700u23V
MT3608_PCB 36x17x14mm Adj23V
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
X2 +Solar- D3 SS14 SS14 40V 1A SMA 0,2V
ST-DC_NEBJ25R (DC022B_35135_M8) 4pol
X5 (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
D6 SM4007 1000V 1A M0207 R10 68R 0,2-0,6W +Ub 12V-8,4V=3,6V-0,6V=3V/47R=64mA
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
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) In GND Out 4,6mA
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
6,5mm VA-Wabendraht 0,5mm 1kg ca.700m 14,95€
Oese1-2 M3x16 DIN84 verzinkt Kernloch 2,1mm
Rohr-PVC D316/250mm Wand6,5mm
M3 Ringoese RV1.25-3
R1 1M war 10M C4xR2 132ms neg R2 war 22k 3ms
IC1B HEF4093BE 3-18V C3+R1 0,5Hz (t=2s)#1 2,78s 360ms #2
C3 4,7u RM5 war 470n C3b 4,7u 1210 C4 100n
R11 0R/100k C8 nc100n tau=10/50ms
IC1A HEF4093BE IC1C HEF4093BE IC1D HEF4093BE
max18V R6 nc1k2 C7 100n D2 rd3mm 0R (11k)ZPD3v3
11,1V 3s 3,7V 2,5-4,2V 2600mAh Sony VTC5
1000u 16V D8x16mm LowESR R3=220R@13,8V
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 75/58x48x43mm 2xBLD4x65mm 5412-2 10,75€ ebay
5cm 10mm Abstand U-Silberdraht
Salat
<-- Schnecken
+9V- X1 220u16V C1 +Bat 9V Clip
6F22 5,5-8,4V 4,68Wh Soshine
Soshine 2s Li-Ion 7,4V 9V 650mAh
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
T4_THR1 BCR555 R12 nc10k 2x6800u16V 3x4700u16V 2200u16V D13x25mmLowESR
R3 100R 220R@1000u C2 C2b D4 ncSS14 Tr2_15VA Tr2b X4
(1M 3500V GlasR) R4 470k R5 470k H1 X8_HV RM7,62 55/94Vac 0,5mA Neon Bulb 4x10mm 1,79€/25
2EDG 5.08 300V 15/10A AWG28-12
2x AWG22 0,34qmm D1,15mm Litze bl/or
#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
C6 100n T2 BC817 I-LED=0,5mA On1,5ms R8 1k D5 gn2mA D1 SS14
R7 15R 1k THR1=T1 T3 BC807 R9 1k nc3k3 1k no T2/T3 THR1>10V
T1_THR1_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 (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
-3VnoT2/T3
DVM_DPM951 (DVM_BY428VG H21mm, 3000V Ri30MR)
Tab1 KABELQ2_VDE0100
Kabelquerschnitte DIN57100
tumg=30°C mm2 | AWG | Luft Gr3 Einadrig | Gruppe2 Mehradrig | Rohr Gr1 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
IC1e NAND_TABELLE
In1 | In2 | Out
L | L | H
L | H | H
H | L | H
H | H | L
MOS 4093 3-15V 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
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
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
Tr 6/230V=2k1 35C530 2,58€ EI30/18 32x27h30mm Stoßspannungsfest 12kV buerklin.com
22uF 350-450V 13x25mm 2,87€/5
Tr 100mA@15V/230V=3k1 1,5VA viele da 32x27h24mm
4bit 0.36" 500V 0,3% 2M 38,6x14,4x10mm 4xBLD2x?mm 5-15/28V 15mA BY436V 2,50€+4,08€
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
4bit 0.28" 500V 2MR 39,4x10,2x9,6mm 2xBLD2,1x36mm BY428V 3,86€/1 (2kV 5x Rv1M2, 6x1M)
Tr 20Wdg 1/230V=910R 4,8VA 42x35,5h31mm
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 0,42kg
BY8410 10kV 5mA 3uA@120°C 42V 100ns 25kHz 0,5pF SOD61AE glasD2,5x9,1mm
Lipo1 11,1V 3s12,6V 7,4V 3,7V 0V
PCB2 PCM_3S_Li-Ion 3s LiPo B+ P+ B2 off4,25V on4,23V B1 Li-Ion off2,54V 25A B-on3,0V 150mV P- +Ub GND
18650 60A 5xFET BMS PCM PCB 3,62€
Falcon DPM951 Digitalmultimeter LED kV µmA Conrad 121142-??
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
+Ub Bat1b GND 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
PCB1 ELV journal Nr. 50, Mai/Juni 1987
PCB80_60_PAD27_22
PCB80x60x1,5mm PAD27x22
THR1b_N-FET K A G G D S IRF3205 TO220
IRF3205 55V 110A 8mR 3247pF Vgsth2-4V
IRLB3034pbf 40V 195A 1,4-2mR 10nF Vgsth1-2,5V 0,49K/W N-Ch 0,35€
Thr1b_MCR100-8 1 2 3 K G A TO92_FRONT
C WE-TI 220u 0,96/1,2A 0,55R 744743221 RS489-0087.pdf
T2+T3+T4 SOT23_BEC_OBEN B E
BRX46 100V bzw. BRX49 400V 800mA Fach
1mH 0,72AD12x11mm L-09HVP 1M 0,99€ L1_WE-TI 4x 220u 0,96A
F1ext T125mA Tr1_16VA BL25 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
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 THR1 MCR100-8 0,6Von
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
TYN1225 200-1200V 25/16A Ig40mA@1,5V Ih50mA 1,3K/W TO220 KAG (Triac TIC225M 600V 8A Igt=5mA Ih=5mA TO220)
R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 2M0
X24+In SL90Uau R13 2k2 0,6W 1N4007 33k(10M 3,5kV) 5x 2M0 0,25W 200V KS1206 DVM1_500V
D21 R31_10x2M X22+Out St4mm X23-In SL90Uau 350Vin D24 D22 D23 C21C22C23 22u350V X21-Out St4mm
100V Ri100k 4-30V 20mA 99,9V GND 25/33x15x7 2x BLD2x28mm
4nF MKT68.2 D11x32mm 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
LiFePo4-1c 12,8V 4s 14,4V 9,6V 6,4V 3,2V 0V
PCB2c 4s LiPo B+ P+ B3 off4,25V on4,23V B2 Li-Ion off2,54V on3,0V 150mV B1 LiFePo4_2,5-3,6V B- P- T1+ T2- +Ub GND
BMS PCM 4S LiFePo4 12,8V 10-14,4V 40A
PB 12V 60Ah 720Wh 10,8-13,8VmaxNToder EVA Solar 10-25W
LiFePo4 4S 12,8V 10-14,4V 32650 32700 6Ah 76,8Wh (38120 10Ah)
X8_S1 S1ext NO NC SW_1UM_13_10_8 Uo/Ub MTS-102 on/off 6A 125VAC
10M 0,5W 3500V Glas D4x10mm VR37 3357799 Farnell Vishay
S1b Ub LL4148 D7 S1_+Ub DVMon TASTER_3305B X7 -5,5-15V+ GND
DVM1b BY428V Ri2M 100V Ri100k 4-30V 20mA 99,9V GND 25/33x15x7 2x BLD2x28mm
Mut1-2_DVM M2_MUTTER_934_SW4 M6 Schr3-4_DVM M2x6 DIN84
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
4bit 0.28" 500V 2MR 39,4x10,2x9,6mm 2xBLD2,1x36mm BY428V 3,86€/1 (2kV 5x Rv1M2, 6x1M) 3kV 10M
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
Terminal Plug Set 15EDG 2,54mm 90° 4A 125V AWG26-18 0,129-0,823qmm PA66 -40/105°C B8,1mm 2,83€/5
600V 10MR ANENG M113 Mini Digital Multimeter AC/DC Voltage Meter 1999 Counts 117x62x28mm 2x AAA 3,09€
DT832 750V 123x67x20mm 9V 4,04€ (SZ08 1000V 2x AA 6,29€) DT9205A-12 1000V 9V 5,29€ (SZ02 999,9V 2x AAA 7,99€)
Title 5,5-15Vdc Schnecken Weidezaun.xls 30€ 350V max. 5Jout <10ms
Size: A4 Number: 038-05 Revision: 03
Date: 16-Jul-2024 Time: 22:02:49 Sheet1 of 2
File: Z:\ANW\DWG\Sonst\Elektronik\LED_I.ddb - Weidezaun03\Weidezaun_S03.Sch
elektroniker2
www.mikrocontroller.net
WB