









Designator	Comment	Description	LibRef	Quantity
]	1	WCAP-CSGP Multilayer Ceramic		
C25	1uF, 10V	Chip Capacitor,	885012106010	1
C7, C8 C10 C7, C8 U2 C26 C1, C2, C3, C5, C6, C11, C12, C14, C15, C16, C17, C18, C20, C21	101 / 101	General Purpose, size 0603, X5R, 1uF,	000012100010	
		10V		
		WCAP-CSGP Multilayer Ceramic		
	1uF, 25V	Chip Capacitor,	885012106022	1
	101,250	General Purpose, size 0603, X5R, 1uF,	000012100022	
		25V		
		WCAP-CSGP Multilayer Ceramic		
	4.7uF, 10V	Chip Capacitor,	885012106012	2
		General Purpose, size 0603, X5R, 4.7uF,		1
		10V		
		WCAP-CSGP Multilayer Ceramic		
	10nF, 16V	Chip Capacitor,	885012206040	1
		General Purpose, size 0603, X7R, 10nF,		
		16V WCAP-CSGP		
		Multilayer Ceramic		
	22pF, 50V	Chip Capacitor, General Purpose,	885012006053	2
		size 0603, NP0, 22pF,		
	24LCxx	50V EEPROM	24LCxx	1
	Z4LCXX	WCAP-CSGP	241044	'
		Multilayer Ceramic Chip Capacitor,		
	100nF, 10V	General Purpose,	885012206020	1
		size 0603, X7R, 100nF, 10V		
		WCAP-CSGP		
		Multilayer Ceramic Chip Capacitor,		
	100nF, 25V	General Purpose,	885012206071	14
	1	size 0603, X7R, 100nF, 25V		
	400 11	WE-PD2A SMT Power	70.47755	
L1	100uH, 0.77A	Inductor, size 7850, 100uH, 0.77A	78477520	1
		WCAP-ASLI		
C22	2205	Aluminum Electrolytic	0/ 50000 45	
C23	220uF	Capacitor, V-Chip,	865080345012	1
		D6.3 x H7.7mm, 220uF, 16V		
		WCAP-ASLI		
C24	680uF	Aluminum Electrolytic	0.50005.0043	
	680uF	Capacitor, V-Chip,	865080562017	1
		D12.5 x H14mm, 680uF, 35V		
		WS-TASV J-Bend SMT		
SW1	434123050816	Tact Switch, 12VDC, 50mA, 160g, height	434123050816	1
110	AAAC1117 2 2W	5mm	ALAC1117 2 20/	1
U8 M1, M2, M3, M4	AMS1117-3.3V AOD472	MOSFET 25V 55A N-	AMS1117-3.3V AOD472	1
		Channel WL-SMCW SMT Mono		-
		color Chip LED		
D4	Blue, 3.2V	Waterclear, size 0603, Blue, 3.2V,	150060BS75000	1
10	DA 40 IAIT -	140deg	L. CTAC:	
J2 J1	BMS INPUT BMS OUTPUT	Jack T 120A Jack T 120A	Jack T Male Jack T Female	1 1
R29, R30	Current Sense Resistor	Shunt Resistor	Current Sense	2
D2, D3	D Schottky	Schottky Diode	Resistor D Schottky	2
P3, P7, P8	Header 3H	Header, 3-Pin, Right Angle	Header 3H	3
		Header, 4-Pin, Right	Header 4H	2
D4 D5	Header 4H			-
P4, P5	Header 4H	Angle Header 5-Pin Right		
P6	Header 5H	Header, 5-Pin, Right Angle	Header 5H	1
		Header, 5-Pin, Right Angle Hole 3mm	Header 5H Hole	1
P6 H1, H2, H3	Header 5H Hole	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement	Hole	1 3
P6	Header 5H	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt		1 3
P6 H1, H2, H3 U5	Header 5H Hole INA139	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General	Hole INA139	1 3
P6 H1, H2, H3	Header 5H Hole	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General	Hole	1 1
P6 H1, H2, H3 U5	Header 5H Hole INA139 LM324	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz General Purpose	Hole INA139 LM324	1 1 1
P6 H1, H2, H3 U5	Header 5H Hole INA139	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz	Hole INA139	1 3 1
P6 H1, H2, H3 U5	Header 5H Hole INA139 LM324	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher	Hole INA139 LM324	1 1 1 2
P6 H1, H2, H3 U5	Header 5H Hole INA139 LM324	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz	Hole INA139 LM324	1 1 2
P6 H1, H2, H3 U5 U1	Header 5H Hole INA 139 LM324 LM358	Header, 5 Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Ampliffer 4 Cencial T. 2MHz General Purpose Ampliffer 2 Circuit 1. 1.1MHz General Furpose Simple Switcher Power Converter 150. ktr 4 Vio 50V, 3A	Hole INA139 LM324 LM358	1 1 2 2
P6 H1, H2, H3 U5 U1	Header 5H Hole INA 139 LM324 LM358	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Simple Switcher Power Converter 150. 4kt 24V to 60V, 3A Step-Down Voltage Regulator WILSMCW SMT Mono	Hole INA139 LM324 LM358 LM2596	1 1 2 2
P6 H1, H2, H3 U5 U1 U4, U6	Header 5H Hole INA139 LM324 LM358 LM2596	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplified + Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150- ktr 4V to 50V, 3A Step-Down Voltage Regulator WSMCW SMT Mono color Chip LED	Hole INA139 LM324 LM358 LM2596	1 1 2 2
P6 H1, H2, H3 U5 U1	Header 5H Hole INA 139 LM324 LM358	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Simple Switcher Power Converter 150. 4kt 24V to 60V, 3A Step-Down Voltage Regulator WILSMCW SMT Mono	Hole INA139 LM324 LM358 LM2596	1 1 2 2 1
P6 H1, H2, H3 U5 U1 U4, U6	Header 5H Hole INA139 LM324 LM358 LM2596	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 9 Circuit 1.1MHz Simple Switcher 190 With 24 Vio 500, 3A Step-Down Voltage Regulator WtSMCW SMT Mono color Chip LED Waterdera, Size 0603 dome, Red. ZV, 60deg	Hole INA139 LM324 LM358 LM2596	1 2 2
P6 H1, H2, H3 U5 U1 U4, U6 U7	Header 5H Hole INA139 IM324 IM358 IM2596 Red, ZV	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Simple Switcher 15	Hole IINA139 LM324 LM358 LM2596 150060RS86000	1 1 2 2 1 1
P6 H1, H2, H3 U5 U1 U4, U6	Header 5H Hole INA139 LM324 LM358 LM2596	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Simple Switcher Power Converter 150 Hz 4V to 60V, 3A Step-Down Voltage Regulator Waterderia, Size 0603 dome, Red, 2V, 60deg Polymeric PTC Resettable Fuse 6V	Hole INA139 LM324 LM358 LM2596	1 1 2 2 1 1 1
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1	Header 5H Hole INA139 IM324 IM358 IM2596 Red, ZV RESETTABLE FUSE 1206	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Simple Switcher 15	Hole IINA139 LM324 LM358 LM2596 150060RS86000 RESETTABLE FUSE 1206	1 2 2 1
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18,	Header 5H Hole IINA139 ILM324 ILM358 ILM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 0 Ohm 0603	Header, 5-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Ampliffer 2 Circuit 1.1Mhtz General Purpose Ampliffer 2 Circuit 1.1Mhtz Simple Switcher Power Converter 150- ktr. 47 to 50V, 3A Step-Down Voltage Regulator Wt. SMC MSMT Mono color Chip LED Waterclear, size 604 330ma hi Surface Simple Switcher Polymeric PTC Resettable Fuse 6V 330ma hi Surface Size 603 330ma hi Surface Size 603 330ma hi Surface	Hole INA139 ILM324 ILM358 ILM2596 I50060RS86000 RESEITABLE FUSE 1206 Resistor 0 Ohm 0603	1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 F5, R7, R11, R13, R18, R20, R24, R26	Header 5H Hole IINA139 LM324 LM358 LM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 5% Resistor 10 KOhm	Header, S-Pin, Right Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Kt 24 To 600, 3A Step-Down Voltage Regulator WL-SMCW SMT Monocolor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Monitor Chip LED Waterclear, size 0603 dome, Red, 2V, 400 Min L	Hole INA139 ILM324 ILM358 ILM2596 I50060RS86000 RESEITABLE FUSE 1206 Resistor 0 Ohm 0603 S% Resistor 10 KOhm	1 1 1 1 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36	Header 5H Hole INA139 LM324 LM358 LM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 5% Resistor 10 KOhm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150-Kt 24 V to 600, 3A Step-Down Voltage Converter 150-Kt	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESEITABLE FUSE 1206 Resistor 10 K0hm 0603 5% Resistor 10 K0hm 0603 1%	1 1 1 8 8 5
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36	Header 5H Hole INA139 LM324 LM358 LM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Simple Switcher Power Converter 150 Simple Switcher 150 Si	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESEITABLE FUSE 1206 Resistor 0 Ohm 0603 5% Resistor 20 KOhm 0603 1% Resistor 20 KOhm 0603 1%	1 1 1 1 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34	Header 5H Hole INA139 IM324 IM358 IM358 IM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 49 9 K0hm	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150. 4 Simple Switcher 150. 5 Simple Switcher 1	Hole IINA139 ILM324 ILM358 ILM2596 ISO050RS86000 RESETTABLE FUSE 1206 Resistor O Ohm 0603 5% Resistor 10 KOhm 0603 1% Resistor 20 KOhm 0603 1% Resistor 49 9 KOhm	1 1 1 8 8 5
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15,	Header 5H Hole INA139 IM324 IM358 IM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 1% Resistor 70 KOhm 0603 1% Resistor 70 KOhm 0603 1% Resistor 49 9 KOhm 0603 1% Resistor 49 9 KOhm 0603 1% Resistor 6KOhm	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Simple Switcher Power Converter 150. kHz AV to 60V, 3A Step-Down Voltage Regulator Waterdear, size 0603 dome, Red. 2V, 60deg Polymeric PTC Resettable Fuse 6W 350mA lh Surface Mount 1206, 3216 Metric, Concave Code 08, 1/10W Code 203,1/10W Code 203,1/10W Code 203,1/10W Code 203,1/10W Code 205,1/10W	Hole INA139 IM324 IM328 ILM358 ILM2596 IS0060RS86000 RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 7% Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 49.9 K0hm 0603 1% Resistor 49.9 K0hm 0603 1% Resistor 60 K0hm	1 1 1 1 1 8 8 5 5 1 1 2 2
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28	Header 5H Hole IINA139 LM324 LM358 LM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 5% Resistor 0 KOhm 0603 1% Resistor 6U KOhm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplified Circuit 1.2MHz General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150-154. AV 10.60 M, 20 M Step-Down Voltage Regulator Water 150-154. AV 10.60 M, 20 M Step-Down Voltage Regulator Red, 2V, 60 Gdeg Polymeric PTC Resettable Fuse 6V 350mA In Surface Mount 1205, 3216 Metric, Concave Code 0R, 1/10W Code 103, 1/10W Code (4992, 68C), 1/10W Code 603, 1/10W Code 603, 1/10W	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESEITABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 60 K0hm 060 K0hm	1 1 2 2 1 1 1 2 2 1 8 8 8 5 5 1 1 2 2 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R35, R38, R9, R14, R15, R21, R22, R28 R33, R37	Header 5H Hole INA139 LM324 LM358 LM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 49 K0hm 0603 1% Resistor 50 K0hm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 4 Circuit 1 2MHz General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Simple Switcher Power Converter 150. kHz AV to 60V, 3A Step-Down Voltage Regulator Waterdear, size 0603 dome, Red. 2V, 60deg Polymeric PTC Resettable Fuse 6W 350mA lh Surface Mount 1206, 3216 Metric, Concave Code 08, 1/10W Code 203,1/10W Code 203,1/10W Code 203,1/10W Code 203,1/10W Code 205,1/10W	Hole IINA139 ILM324 ILM358 ILM2596 ISSECTIABLE FUSE IZ006 RESETTABLE FUSE IZ006 Resistor 0 Ohm 0603 Resistor 10 KOhm 0603 1% Resistor 20 KOhm 0603 1% Resistor 50 KOhm 0603 1% Resistor 75 Ohm 0603 Resistor 75 Ohm 0603	1 1 1 1 1 8 8 5 5 1 1 2 2
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R21, R26, R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R10, R12, R16, R10, R12, R16, R10, R12, R16	Header 5H Hole INA139 IM324 IM358 IM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 Resistor 20 KOhm 0603 1% Resistor 60 KOhm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 100 KOhm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High-Side Measurement Current Shunt Monitor OPAMP General Purpose Amplified Circuit 1.2MHz General Purpose Amplifier 4 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher Power Converter 150-154. AV 10.60 M, 20 M Step-Down Voltage Regulator Water 150-154. AV 10.60 M, 20 M Step-Down Voltage Regulator Red, 2V, 60 Gdeg Polymeric PTC Resettable Fuse 6V 350mA In Surface Mount 1205, 3216 Metric, Concave Code 0R, 1/10W Code 103, 1/10W Code (4992, 68C), 1/10W Code 603, 1/10W Code 603, 1/10W	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESEITABLE FUSE 1206 Resistor 10 KOhm 603 1% Resistor 20 KOhm 603 1% Resistor 50 KOhm 603 1% Resistor 60 KOhm 603 1% Resistor 50 KOhm 603 1% Resistor 75 Ohm 603 1%	1 1 2 2 1 1 1 2 2 1 8 8 8 5 5 1 1 2 2 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R25 R1, R2, R27, R32, R36 R3, R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R31, R22, R28 R33, R37 R31, R32, R27, R32, R36 R31, R32, R36, R9, R14, R15, R31, R32, R36 R31, R37, R32, R36 R31, R32, R36 R31, R31, R32, R36 R31, R31, R32, R36 R31, R31, R31, R31, R31, R31, R31, R31,	Header 5H Hole IINA139 LM324 LM358 LM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 60 K0hm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 10 K0hm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.3MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher 1900 Simpl	Hole INA139 LM324 LM324 LM358 LM2596 150060RS86000 RESEITABLE FUSE 1206 Resistor 0 Ohm 0603 5%. Resistor 20 KOhm 0603 1%. Resistor 60 KOhm 0603 1%. Resistor 75 Ohm 0603 1%. Resistor 75 Ohm 0603 1%. Resistor 100 KOhm 0603 1%.	1 1 2 2 8 8 2 2 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R19, R23, R25 R31, R40	Header 5H Hole INA139 IM324 IM324 IM358 ILM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 10 Knhm 0603 1% Resistor 49 9 K0hm 0603 1% Resistor 100 K0hm 0603 1%	Header, S-Pin, Right Angle Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Month 2 General Purpose General Purpose Month 2 General Purpose Month 2 General Purpose General Purpose Month 2 General Purpose Month 2 General Purpose Month 2 General Purpose Gener	Hole IINA139 ILM324 ILM358 ILM2596 ISO050RS86000 RESETTABLE FUSE 1206 Resistor O Ohm 0603 5% Resistor 10 KOhm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 100 KOhm 0603 1%	1 1 1 1 1 8 8 5 1 1 2 2 8 8 2 2
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R21, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R10, R12, R16, R10, R12, R16	Header 5H Hole INA139 IM324 IM358 IM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 5% Resistor 10 KOhm 0603 1% Resistor 50 KOhm 0603 1% Resistor 70 KOhm 0603 1% Resistor 100 KOhm 0603 1% Resistor 200 KOhm 0603 1% Resistor 100 KOhm 0603 1% Resistor 200 KOhm 0603 1%	Header, S-Pin, Right Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.3MHz General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Medical Circuit 1.1MHz General Power Converter 150 General Power Converter 150 General Power Converter 150 General Monitor 150	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 50 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 70 N0 K0hm 0603 1%	1 1 2 2 8 8 2 2 8 8
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R21, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R19, R23, R25 R31, R40 R17	Header 5H Hole INA139 LM324 LM358 LM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 10 K0hm 0603 1% Resistor 50 K0hm 0603 1% Resistor 100 K0hm 0603 1%	Header, S-Pin, Right Angle Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Month 2 General Purpose General Purpose Month 2 General Purpose Month 2 General Purpose General Purpose Month 2 General Purpose Month 2 General Purpose Month 2 General Purpose Gener	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESETTABLE FUSE 1206 Resistor 10 Nohm 0603 78 Resistor 20 KOhm 0603 19 Resistor 50 KOhm 0603 19 Resistor 75 Ohm 0603 19 Resistor 100 KOhm 0603 19 Resisto	1 1 1 1 1 8 8 5 1 1 2 2 8 8 2 2
P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R19, R23, R25 R31, R40 R17 R39	Header 5H Hole LM324 LM358 LM2596 Red, 2V RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 6U K0hm 0603 1% Resistor 6U K0hm 0603 1% Resistor 75 Ohm 0603 1% Resistor 75 Ohm 0603 1% Resistor 200 Ohm 0603 1% Resistor 100 K0hm 0603 1% Resistor 200 Ohm 0603 1%	Header, S-Pin, Right Angle Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.2MHz General Purpose Amplifier 2 Circuit 1.1MHz Simple Switcher 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Might 2 Circuit 1.1MHz Simple Switcher Power Converter 150 Might 2 Circuit 1.1MHz Simple Switcher 150 Might 2 Circuit 1.1MHz Switcher 150 Might 2 Circui	Hole INA139 LM324 LM358 LM2596 150060RS86000 RESETTABLE FUSE 1206 Resistor 10 K0hm 0603 1% Resistor 20 K0hm 0603 1% Resistor 50 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 600 N0 K0hm 0603 1% Resistor 70 N0 K0hm 0603 1%	1 1 2 2 1 1 1 2 2 8 8 2 2 8 8 2 2 1 1 1
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P6 H1, H2, H3 U5 U1 U4, U6 U7 D1 F1 R5, R7, R11, R13, R18, R20, R24, R26 R1, R2, R27, R32, R36 R34 R35, R38 R3, R8, R9, R14, R15, R21, R22, R28 R33, R37 R4, R6, R10, R12, R16, R19, R23, R25 R31, R40 R17 R39 P1 U3 C19, C22	Header 5H Hole INA139 IMA139 IMA324 IM358 IM2596 Red, ZV RESETTABLE FUSE 1206 Resistor 0 Ohm 0603 7% Resistor 20 KOhm 0603 1% Resistor 20 KOhm 0603 1% Resistor 60 KOhm 0603 1% Resistor 60 KOhm 0603 1% Resistor 60 KOhm 0603 1% Resistor 70 Ohm 0603 1% Rotary Encoder SIM32F0300C8T6 Tantalum Capacitor	Header, S-Pin, Right Angle Angle Hole 3mm High Side Measurement Current Shunt Monitor OPAMP General Purpose Amplifier 2 Circuit 1.1MHz General Purpose Amplifier 4 Circuit 1.1MHz Simple Switcher Power Conwerter 150-Kt 24 to 600, 3A Step-Down Voltage Regulator WL-SMCW SMT Monocotor Chip LED Waterclear, Size 0603 dome, Red. 2V, 60deg Polymeric PTC Research Size Mount 1206, 2316 Metric, Concave Code 0R, 1/10W Code 103, 1/10W Code 633, 1/10W Code 633, 1/10W Code 6471, 1/10W Code 104, 1/10W Code 104, 1/10W Code 104, 1/10W Code 201, 1/10W Code 201, 1/10W Code 201, 1/10W Code 104, 1/10W Code 104, 1/10W Code 105, 1/10W Code 107, 1/10W Code 201, 1/10W Code	Hole INA139 ILM324 ILM358 ILM2596 ISSOCORS86000 RESEITABLE FUSE 1206 Resistor 10 KOhm 603 1% Resistor 20 KOhm 603 1% Resistor 50 KOhm 603 1% Resistor 60 KOhm 603 1% Resistor 60 KOhm 603 1% Resistor 60 KOhm 603 1% Resistor 70 Ohm 603 1% Resistor 100 KOhm 603 1% Resistor 200 Ohm	3 3 3 1 1 1 2 2 1 1 1 1 1 1 1 2 2 1 1 1 1
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