



EVSPIN32G02Q1S1 - Bill of materials

Reference	Part Value	Description	Package	Manufacturer	Part Number
D1,D4,D7	100nF/25V	SMT Ceramic Capacitor	Size 0603		
D2,D3,D5,D6,D8,D9,D10,D11,D12, D15,D18,D21,D22	1uF/25V	SMT Ceramic Capacitor	Size 0603		
D13,D16,D19	1uF/50V	SMT ceramic capacitor	Size 0805		
D14,D17,D20	N.M.	SMT ceramic capacitor	Size 0603		
D23	4.7pF/50V	SMT Ceramic Capacitor	Size 0603		
D24	N.M.	Film, Metallized Polypropylene	4x13 mm, Pitch 10 mm	KEMET	R71MF31004030K or Equivalent
D25	33nF/630V	SMT Ceramic Capacitor	Size 1210		
D26,D27	10pF/10V	SMT Ceramic Capacitor	Size 0603		
D28	4.7nF/25V	SMT Ceramic Capacitor	Size 0603		
F1A	10nF/25V	SMT Ceramic Capacitor	Size 0603		
F1	4.7uF/25V	SMT Ceramic Capacitor	Size 0603		
JP1	1nF/25V	SMT Ceramic Capacitor	Size 0603		
JP2,JP7	4.7uF/10V	SMT Ceramic Capacitor	Size 0805		
JP3	470pF/25V	SMT Ceramic Capacitor	Size 0603		
JP4,JP5,JP6	22uF/25V	SMD Aluminum Elect. Capacitor	5x5.4 mm	Panasonic	EEE1EA220WR or Equivalent
JP8	10uF/10V	SMT Ceramic Capacitor	Size 1206		
J1,J6,J7	47nF/25V	SMT Ceramic Capacitor	Size 0603		
J2,J8	4.7uF/50V	SMT Ceramic Capacitor	Size 1206		
J3	270uF/250V	THT Electrolytic Capacitor	Radial p10 d22h27	Nichicon	LGN2E271MELZ25 or equivalent
J4	N.M.	THT Electrolytic Capacitor	Radial p7.5 d18h25	Rubycon	450BXW68MEFC18X25 or equivalent
J5	220nF/25V	SMT ceramic capacitor	Size 0603		
J9	1nF/50V	SMT ceramic capacitor	Size 0603		
J10	1nF/10V	SMT ceramic capacitor	Size 0603		
LD1,LD2	47uF/20V	Low ESR series of robust MnO2 solid electrolyte capacitors	D / E	AVX	TPS Series or equivalent
LD3	100nF/50V	SMT ceramic capacitor	Size 0805		
L1	100pF	SMT ceramic capacitor	Size 0603		
NTC1	N.M.	Turbo 2 Ultrafast High-Voltage Rectifier	SMA	STMicroelectronics	STTH1L06A
Net1,Net2	BAT54J	40V, 300mA Small signal Schottky SMT Diode	SOD-323	STMicroelectronics	BAT54JFILM
Q1,Q2,Q3,Q4,Q5,Q6	BAT30SW	Small signal Schottky diodes	SOT-323	STMicroelectronics	BAT30SWFILM or equivalent
Q1A,Q2A,Q3A,Q4A,Q5A,Q6A	BAV21W	SURFACE MOUNT SWITCHING DIODE	SOD123	DIODES Incorporated	BAV21W-7-F / Q-7-F or equivalent
Q7	DDZ9690T	SURFACE MOUNT ZENER DIODE	SOD523	DIODES Incorporated	DDZ9690T-7 or equivalent
RV1	GBU802	8A Glass passivated bridge rectifiers	GBU	Diodes Incorporated	GBU802 or equivalent
R1,R11,R27	BAT41Z	100V, 200mA Low capacitance small signal Schottky diode	SOD-123	STMicroelectronics	BAT41ZFILM
R2,R7,R12,R20,R31,R38	STTH1R04	Ultrafast recovery diode, 1A 400V	SMA	STMicroelectronics	STTH1R04A
R3,R9,R13,R23,R33,R44	3V3 N.M.	ZENER 3V3	SOD-123		
R4,R10,R14,R24,R34,R45,R88	N.M.	Time Lag radial lead Micro Fuse, 250Vac	RST-BELFUSE	belfuse	0697-xx or equivalent
R5,R15,R35	10A/277V slow	Suface Mount Fuse, Time-Lag T, 250Vac125Vdc	UMT250-SHURTER	Schurter	3403.0176.24 or equivalent
R6,R16,R36	Jumper a Goccia	SMT Jumper	Soldering pads		
R8,R21,R41	OPEN	SMT Jumper	Soldering pad		
R17	CLOSED 2-4	SMT Jumper	Soldering pad		
R18,R39,R40,R51,R52,R53,R76	CLOSED 2-4	Jumper to solder	Soldering pads		
R19,R22,R46,R47,R61,R80,R81,R83 R84,R85,R86,R89	CLOSED 1-2	Strip connector 3 pos, 2.54 mm	1x3 pins	Amphenol FCI	68000-403HLF or Equivalent
R25,R87	STRIP 1x4	Strip connector 4 pos, 2.54 mm	1x4 pins	Amphenol FCI	68000-404HLF or Equivalent
R26,R48,R79	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	WURTH ELEKTRONIK	61300511121 or Equivalent
R28	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	Amphenol FCI	68000-405HLF or Equivalent
R29,R90,R91,R92	MORSV-508-2P_screw	Connector terminal block T.H. 2 positions 5.08 mm	2 poles, Pitch 5.08	Phoenix Contact	
R30,R62,R63,R64,R77	SAMTEC FTSH-107-01-L-DV-K-A	SMT Micro Header pitch 1.27 mm		SAMTEC	
R32,R43	STRIP 2x5	Strip connector 2x5, pitch 2.54 mm	2x5 pins	WURTH ELEKTRONIK	61301021121 or equivalent
R37	MORSV-508-3P_screw	Connector terminal block T.H. 3 positions 5.08 mm	3 poles, Pitch 5.08	Phoenix Contact	1715857 or equivalent
R42,R54,R67,R93,R94,R95	YELLOW	Yellow LED	Size 0603	WURTH ELEKTRONIK	150060YS75000 or Equivalent
R49,R82,R96,R97	GREEN	Green LED	Size 0805		
R50,R65	330uH	SMD Power inductors for Automotive/Industrial applications		TAIYO YUDEN	EST1060T331MDGA or equivalent
R55,R57	5R	NTC Thermistors for inrush current limiting	Pitch 5.08 mm	TDK	B5723S0509M000 or equivalent
R56,R58,R59	N.M.				

R60	STD17NF25	N-channel 250 V, 0.140 O typ., 17 A STripFET™ II Power MOSFETs	DDPAK	STMicroelectronics	STD17NF25
R66	N.M.	N-channel 600 V, 0.195 Ohm typ., 15 A MDmesh DM2 Power MOSFET	PowerFLAT 8x8	STMicroelectronics	STL24N60DM2
R68	2SCR642P HZG	Transistor bipolari - BJT 30V 10A	SOT-89	ROHM	2SCR642PHZGT100 or equivalent
R69	N.M.	Varistor	Pitch 2.3x7.5 mm		
R70	27R	SMT resistor	Size 0805		
R71	10R	SMT Resistor	Size 0805		
R72	100R	SMT Resistor	Size 0805		
R73	100k	SMT Resistor	Size 0603		
R74	56k	SMT Resistor	Size 1206		
R75	39k	SMT Resistor	Size 1206		
R78	1.5k	SMT Resistor	Size 0603		
SW1,SW2,SW3	100k	3362 - 1/4 ? Square Trimptot Trimming Potentiometer	3362P	Bourns	3362P-1-xxx x LF
TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,T P10,TP11,TP12,TP14,TP15,TP16,TP1 7,TP18,TP19,TP20,TP21	10k	SMT Resistor	Size 0603		
TP9,TP13	0R	SMT Resistor	Size 0603		
U1	NM	SMT Resistor	Size 0603		
U2	33k	SMT Resistor	Size 0603		
U3	100m-2W-1%	SMT Resistor	Size 2512		
U4	1k	SMT resistor	Size 0603		
U5	N.M.	SMT Resistor	Size 0603		
U6	2k2	SMT Resistor	Size 0603		
XT1	39k	SMT Resistor	Size 0603		
	100R	SMT resistor	Size 0603		
	1M	SMT resistor	Size 0603		
	120R	SMT Resistor	Size 0603		
	470k	SMT Resistor	Size 1206		
	1.8k	SMT Resistor	Size 0603		
	N.M.	NTC Resistor	Hole 0.8 mm		
	NM	SMT Resistor	Size 0805		
	68k	SMT Resistor	Size 0805		
	4.7k	SMT Resistor	Size 0603		
	1.5k	SMT Resistor	Size 1206		
	15k	SMT resistor	Size 0603		
	82k	SMT resistor	Size 0603		
	9.1k	SMT resistor	Size 0603		
	0R	SMT resistor	Size 0805		
	2.7k	SMT resistor	Size 0603		
	8k2	SMT resistor	Size 0603		
	4.30483E+11	CMS TACTILE SWITCHES - 6x6 J-bend		WURTH ELECTRONIK	430483025816 or Equivalent
	N.M.	TP for Probe	Diam. 1.27, Hole 0.8mm		
	TP1H-ANELLO-1MM	THT Ring Test Point		Keystone	5003 or Equivalent
	STSPIN32G0251Q	250 V three-phase controller with MCU	QFN 10x10 72L pitch 0.5	STMicroelectronics	STSPIN32G0251Q/TR
	TSV991ILT	Rail-to-Rail input/output 20 MHz GBP operational amplifiers	SOT23-5	STMicroelectronics	TSV991ILT/ AILT or equivalent
	TS3021ILT	Rail-to-rail 1.8 V high-speed comparator	SOT23-5	STMicroelectronics	TS3021ILT
	TS3704IPT	Micropower quad CMOS voltage comparators	TSSOP14	STMicroelectronics	TS3704IPT
	VIPer013	Energy saving off-line high voltage converter	SSOP10	STMicroelectronics	VIPer013BLS/TR
	LD1117S33CTR	800mA, 3.3V Adjustable and Fixed low drop positive voltage regulator	SOT-223	STMicroelectronics	LD1117S33CTR
	ABM8AIG-8.000MHZ-8	Automotive & Industrial Grade Ceramic Base SMD Crystal		ABRACON	ABM8AIG-8.000MHZ-8-V1R-T or equivalent
		P.C.B. EVSPIN32G02Q1S1			