



EVSPIN32G06Q1S3 - Bill of materials

Reference	Part Value	Description	Package	Manufacturer	Part Number
C1,C10,C13,C35,C41,C50,C52,C55	100nF/25V	SMT Ceramic Capacitor	Size 0603		
C2,C6	10nF/25V	SMT Ceramic Capacitor	Size 0603		
C3,C4,C5	10pF/10V	SMT Ceramic Capacitor	Size 0603		
C7	N.M.	THT Electrolytic Capacitor, Radial p7.5 d18h25	Radial p7.5 d18h25 mm	Rubycon	
C8	150uF/420V	THT Electrolytic Capacitor, Radial p10 d22h27 105C	Radial p10 d22h27.5 mm	United Chemi-Con	
C9	4.7uF/50V	SMT Ceramic Capacitor	Size 1206		
C11	22uF/25V	SMT Aluminum Elect. Capacitor	5x5.4 mm	Panasonic	
C12	220pF/ 630V	SMT Ceramic Capacitor	Size 1206	Multicomp	
C14	220nF/25V	SMT Ceramic Capacitor	Size 0603		
C15	33nF/630V	SMT multilayer Capacitor	Size 1210		
C16,C17,C18,C32,C33,C34,C36,C44,C45,C46	N.M.	SMT Ceramic Capacitor	Size 0603		
C19	N.M.	Film, Metallized Polypropylene	4x13 mm, Pitch 10 mm	KEMET	
C20,C26,C28	1uF/50V	SMT Ceramic Capacitor	Size 0805		
C21,C24	100nF/10V	SMT Ceramic Capacitor	Size 0603		
C22	1uF/10V	SMT Ceramic Capacitor	Size 0603		
C23	4.7uF/10V	SMT Ceramic Capacitor	Size 0603		
C25,C27	10pF/25V	SMT Ceramic Capacitor	Size 0603		
C29	820pF/25V	SMT Ceramic Capacitor	Size 0603		
C30	680nF/10V	SMT Ceramic Capacitor	Size 0603		
C31	4.7nF/25V	SMT Ceramic Capacitor	Size 0603		
C37,C38	47nF/25V	SMT Ceramic Capacitor	Size 0603		
C39	10uF/35V	SMT Aluminum Elect. Capacitor	5x5.4 mm	Panasonic	
C40	1nF/25V	SMT Ceramic Capacitor	Size 0603		
C42,C47,C53	NM	SMT Ceramic Capacitor	Size 0603		
C43	47uF/25V	SMT Aluminum Elect. Capacitor	6.3x5.8 mm	nichicon	
C48	470uF/10V	SMT Aluminum Elect. Capacitor	6.3x7.7 mm	Panasonic	
C49,C51,C56	470pF/25V	SMT Ceramic Capacitor	Size 0603		
C54	10uF/10V	SMT Ceramic Capacitor	Size 1206		
DL1,DL3	YELLOW	Yellow LED	Size 0603	WURTH ELEKTRONIK	
DL2	RED	Red LED	Size 0603	WURTH ELEKTRONIK	
D1	GBU805	8A Glass Passivated Single-Phase Bridge Rectifier	GBU	Taiwan Semiconductor	
D2	BZX58550-C5V6	BZX58550 series Low-current voltage regulator diodes	SOD523 (SC-79)	Nexperia	
D3,D4,D5	N.M.	Turbo 2 Ultrafast High-Voltage Rectifier	SMA	STMicroelectronics	
D6	STTH1L06A	Turbo 2 Ultrafast High Voltage Rectifier	SMA	STMicroelectronics	
D7,D8,D9,D11,D13,D14,D15,D16	BAT54J	40V, 300mA Small signal Schottky SMT Diode	SOD-323	STMicroelectronics	
D10	STPS1150A	150V, 1A Power Schottky rectifier	SMA	STMicroelectronics	
D12	STPS0560Z	60V, 0.5A Schottky rectifier	SOD-123	STMicroelectronics	
D17	3V3 N.M.	ZENER	SOD-123		
F1	N.M.	Time Lag radial lead Micro Fuse, 250Vac	RST-BELFUSE	belfuse	
F2	5A/277V slow	Suface Mount Fuse, Time-Lag T, 250Vac125Vdc	UMT250-SHURTER	Schurter	
JP1,JP2,JP3,JP4,JP8	CLOSED	SMT Jumper	Soldering pad		
JP5	CLOSED 2-4	Jumper to solder	Soldering pads		
JP6	OPEN	SMT jumper	Soldering pad		
JP7	Jumper a Goccia	SMT Jumper	Soldering pads		
JP9	CLOSED 1-2	Strip connector 5 pos, 2.54 mm	1x5 pins	WURTH ELEKTRONIK	
JP10	CLOSED 1-2	Strip connector 3 pos, 2.54 mm	1x3 pins	Amphenol FCI	
J1	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	Amphenol FCI	
J2	MORSV-508-3P_screw	Connector terminal block T.H. 3 positions 5.08 mm	3 poles, Pitch 5.08	Phoenix Contact	

J3	MORSV-508-2P_screw	Connector terminal block T.H. 2 positions 5.08 mm	2 poles, Pitch 5.08	Phoenix Contact	
J4	evspin	Male Box Header	2 x 10 pins	WURTH ELEKTRONIK	
J5	SAMTEC FTSH-107-01-L-DV-K-A	SMT Micro Header pitch 1.27 mm		SAMTEC	
J6	STRIP 1x5	Strip connector 5 pos, 2.54 mm	1x5 pins	WURTH ELEKTRONIK	
J7	STRIP 2x5	Strip connector 2x5, pitch 2.54 mm	2x5 pins	WURTH ELEKTRONIK	
J8,J9,J10	STRIP 1x4	Strip connector 4 pos, 2.54 mm	1x4 pins	Amphenol FCI	
LD1	GREEN	Green LED	Size 0805		
NET1,NET2,NET3,NET4,NET5,NET6	N.M.				
NTC1	2R2	NTC Thermistor for Inrush current limiting		TDK	
Q1	2SCR642P HZG	Transistor bipolari - BJT 30V 10A	SOT-89	ROHM	
Q2,Q3,Q4,Q8,Q9,Q10	N.M.	N-channel 600 V, 0.195 Ohm typ., 15 A MDmesh DM2 Power MOSFET	PowerFLAT 8x8	STMicroelectronics	
Q5,Q6,Q7,Q11,Q12,Q13	STGD6M65DF2	Trench gate field-stop IGBT, M series 650V, 6A low loss	DPAK	STMicroelectronics	
RV1	N.M.	Varistor	Pitch 2.3x7.5 mm		
R1,R8,R12	100R	SMT Resistor	Size 0603		
R2,R4,R6	N.M.	SMT Resistor	Size 0603		
R3,R5,R7	1.8K	SMT Resistor	Size 0603		
R9,R10,R11,R41,R79,R80,R84,R91	10K	SMT Resistor	Size 0603		
R13,R27,R32,R49,R50,R64,R67,R68	0R	SMT resistor	Size 0603		
R14	8K2	SMT Resistor	Size 0603		
R15	NM	SMT Resistor	Size 0603		
R16,R33,R34,R35,R75,R76,R77	100K	SMT Resistor	Size 0603		
R17,R18,R21	27R	SMT resistor	Size 0805		
R19	220K 1/3W	SMT Resistor	Size 0805	TE Connectivity	
R20	0R	SMT Resistor	Size 1206		
R22,R30	470K	SMT Resistor	Size 1206		
R23,R24,R28,R48	0R	SMT Resistor	Size 0603		
R25,R39	120R	SMT Resistor	Size 0603		
R26	330R	SMT Resistor	Size 0603		
R29,R37,R45,R55,R62,R71	10R	SMT Resistor	Size 0805		
R31,R38,R46,R53,R70,R73	100R	SMT Resistor	Size 0805		
R36	6.49K	SMT Resistor	Size 0805		
R40,R42	22K	SMT Resistor	Size 0603		
R43	1K	SMT Resistor	Size 0805		
R44	39K	SMT Resistor	Size 0603		
R47	36K	SMT Resistor	Size 0603		
R51	10R	SMT Resistor	Size 0603		
R52,R58,R81	2K2	SMT Resistor	Size 0603		
R54	4.7K	SMT Resistor	Size 0603		
R56,R59,R72,R78,R82,R90	2K7	SMT Resistor	Size 0603		
R57	33k	SMT Resistor	Size 0603		
R60,R61,R65,R66,R87,R88	20K	SMT Resistor	Size 0603		
R63	47K	SMT Resistor	Size 0603		
R69	N.M.	NTC Resistor	Hole 0.8 mm		
R74	100K	Square trimpot trimming potentiometer	3362P	BOURNS	
R83	1.5K	SMT Resistor	Size 1206		
R85,R86,R89	220m/ 1W/ 1%	SMT Resistor	Size 2512 / 1210		
SW1,SW2,SW3	430483025816	CMS TACTILE SWITCHES - 6x6 J-bend		WURTH ELEKTRONIK	
TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,TP9,TP10,TP11,TP12,TP13,TP14,TP15,TP16,TP19	N.M.	TP for Probe	Diam. 1.27, Hole 0.8mm		
TP17,TP18	TPTH-ANELLO-1MM	THT Ring Test Point Rosso		Keystone	
T1	750318434	Switch mode Transformer 2.3W 60kHz 3.15mH 7-15V		WURTH ELECTRONIK or MAGNETICA	
U1	VIPER06XS	Fixed-frequency VIPer plus family	SSO10	STMicroelectronics	
U2	STSPIN32G0601Q	600 V three-phase controller with MCU	QFN 10x10 72L pitch 0.5	STMicroelectronics	
U3,U5	TSV772IQ2T	High bandwidth (20 MHz) low offset (200 µV) rail-to-rail 5 V Op Amp	DFN8 2x2	STMicroelectronics	
U4	AZ1117H-3.3TRG1	LOW DROPOUT LINEAR REGULATOR	SOT-223	Diodes Incorporated	

X1	ABM8AIG-8.000MHZ-8	Automotive & Industrial Grade Ceramic Base SMD Crystal		ABRACON	
		P.C.B. EVSPIN32G06Q1S3 R1		STMicroelectronics	