ON Semiconductor®

Bill of Materials for the STK5Q4U352JGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
R1 - R6, R10	7	Signal input, Fault output low pass filter / resistor	100Ω / 0.125W	±5%	SMD 2012	ROHM	MCR10EZPJ101	Yes	Yes
R7, R9	2	FAULT, ENABLE pull-up / resistor	20kΩ / 0.125W	±5%	SMD 2012	ROHM	MCR10EZPJ203	Yes	Yes
R8	1	Setting fault clear time / resistor	2.2MΩ / 0.125W	±5%	SMD 2012	ROHM	MCR10EZPJ225	Yes	Yes
R11	1	TH pull-down / resistor	4.7kΩ / 0.125W	±1%	SMD 2012	ROHM	MCR10EZPF4701	Yes	Yes
R12	1	Setting time constant / resistor	200Ω / 0.125W	±5%	SMD 2012	ROHM	MCR10EZPJ201	Yes	Yes
R13	1	Shunt resistor	0.10, 0.04, 0.03 or 0.02Ω / 4W	±5%	SMD 6772	RARA Electronics	LR2728-24RXXXF1	Yes	Yes
C1, C10, C21, C15, C19	5	VBU – U, VBV – V, VBW – W, VDD – GND, TH2 – GND / capacitor	0.1μF / 50V	±10%	SMD 2012	SAMSUNG	CL21B104KB	Yes	Yes
C2, C11, C22	3	Aluminum electrolytic capacitor VBU – U, VBV – V, VBW – W	33μF / 35V	±20%	Through-hole	SAMYOUNG	KXL 33μF, 35V	Yes	Yes
C3	1	Film capacitor, Snubber P – N	0.1μF / 630V	±5%	Through-hole	PILKOR	PCMP483D6U104	Yes	Yes
C4 - C9, C12 - C13, C16,C17, C18	11	Signal input low pass filter, TH1 – GND, Fault output low pass filter, FAULT – GND, Setting fault clear time / capacitor	1nF / 50V	±10%	SMD 2012	SAMSUNG	CL21B102KB	Yes	Yes
C14	1	Aluminum electrolytic capacitor VDD – GND	220μF / 35V	±20%	Through-hole	SAMYOUNG	KXL 220μF, 35V	Yes	Yes
C20	1	Setting time constant / capacitor	10nF / 50V	±10%	SMD 2012	SAMSUNG	CL21B103KB	Yes	Yes
ZD1 - ZD4	4	VBU – U, VBV – V, VDD – GND, VBW – W / zener diode	24V / 0.5W	±5%	SOD-123	ON Semiconductor	MMSZ5252B	Yes	Yes
CN1	1	11pin Connector	3A / 250V	-	Through-hole 2.50pitch	YEONHO	SMW250-11	Yes	Yes
U1, V1, W1, P1, N1	5	Faston terminal (Tab)	-	-	Through-hole	KET	GP881191-2	Yes	Yes
IPM1	1	Inverter IPM for 3-phase Motor Drive	-	-	DIP-38	ON Semiconductor	STK5Q4U352J-E	No	Yes