

Bill of Materials for the STK5MFU3C1AGEVB Evaluation Board



Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
R1 – R3	3	Metal plate resistor	50mmΩ / 5W	±10%	---	KOA	BPR58C50LK	YES	YES
R4 – R6	3	Metal plate resistor	15mmΩ / 5W	±10%	---	KOA	BPR58C15LK	YES	YES
R7, R8	2		0Ω	---%	SMD 1608	KOA	RK73Z1JTDD	YES	YES
R9	1		20kΩ / 0.1W	±1%	SMD 1608	KOA	RK73H1JTDD2002F	YES	YES
R10 – R16	7		100Ω / 0.1W	±1%	SMD 1608	KOA	RK73H1JTDD1000F	YES	YES
R17 – R23	7		3.3kΩ / 0.1W	±1%	SMD 1608	KOA	RK73H1JTDD3301F	YES	YES
C1, C2	2	Aluminum electrolytic capacitor	470uF / 450V	±20%	Through-hole	Rubycon	450MXC470MEFCSN35X50	YES	YES
C3	1	Film capacitor	2.2uF / 630V	±5%	Through-hole	PANASONIC	ECQE6225JT	YES	YES
C4 – C6	3		22uF / 25V	±20%	SMD 3225	MURATA	GRM32ER71E226ME15L	YES	YES
C7 – C10	4		0.1uF / 50V	±10%	SMD 1608	MURATA	GRM188B31H104K	YES	YES
C11	1	Aluminum electrolytic capacitor	220uF / 35V	±20%	Through-hole	Nippon Chemi-Con	EKMG350ELL221MHB5D	YES	YES
C12, C13	2					NC			
C14 – C20	7		100pF / 50V	±5%	SMD 1608	MURATA	GRM1882C1H101J	YES	YES
DB1	1	Bridge diode	25A / 800V		Through-hole	Shindengen	D25XB80	YES	YES
CN1	1	Connector	16pin / 2.54pitch		Through-hole	Hirose	A2-16PA-2.54DSA(71)	YES	YES
VSS, VDD, VEXT, N, ITRIP, PFCTRIP, FAULT/TH, PFCIN, HIN1-3, LIN1-3, P, N	16	Test pin			Through-hole	Mac8	ST-1-3	YES	YES
U, V, W, +, PC, ACIN1, ACIN2	7	Faston terminal (Tab)			Through-hole			YES	YES
IC1	1	Boost PFC + 3 Phase Inverter IPM			Through-hole	ON Semiconductor	STK5MFU3C1A-E	NO	YES