

LM25118 Buck-Boost

Designator	Quantity	Value	Description	PackageReference	PartNumber	Manufacturer	Alternate PartNumber	Alternate Manufacturer
C1, C3	2	22uF	CAP, CERM, 22uF, 25V, +/-20%, X7R, 2220	2220	C5750X7R1E226M	TDK		
C6, C13	2	0.1uF	CAP, CERM, 0.1uF, 25V, +/-10%, X7R, 0603	0603	GRM188R71E104KA01D	MuRata		
C8	1	100uF	CAP, AL, 100uF, 16V, +/-20%, 0.024 ohm, SMD	F80	APXE160ARA101MF80G	Nippon Chemi-Con		
C10, C12	2	4.7uF	CAP, CERM, 4.7uF, 25V, +/-10%, X7R, 1206	1206	GRM31CR71E475KA88L	MuRata		
C15	1	470pF	CAP, CERM, 470pF, 50V, +/-10%, X7R, 0603	0603	GRM188R71H471KA01D	MuRata		
C17	1	0.022uF	CAP, CERM, 0.022uF, 50V, +/-10%, X7R, 0603	0603	GRM188R71H223KA01D	MuRata		
C18	1	1000pF	CAP, CERM, 1000pF, 50V, +/-5%, C0G/NP0, 0603	0603	GRM1885C1H102JA01D	MuRata		
C21	1	1uF	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0805	0805	GRM219R71E105KA88D	MuRata		
C22	1	0.01uF	CAP, CERM, 0.01uF, 50V, +/-10%, X7R, 0603	0603	GRM188R71H103KA01D	MuRata		
D1, D2, D3, D4	4	0.32V	Diode, Schottky, 30V, 2A, M-FLAT	M-FLAT	CMS06	Toshiba		
J1, J2, J3, J4	4	Double	Terminal, Turret, TH, Double	Keystone1503-2	1503-2	Keystone		
L1	1	220uH	Inductor, Toroid, 220uH, 3.5A, 0.074 ohm, SMD	PM2110	PM2110-221K-RC	Bourns		
Q1, Q2	2	30V	MOSFET, N-CH, 30V, 47A, SON 3.3x3.3mm	SON 3.3x3.3mm	CSD17308Q3	Texas Instruments		None
R2	1	17.4k	RES, 17.4k ohm, 1%, 0.1W, 0603	0603	CRCW060317K4FKEA	Vishay-Dale		
R3	1	1.0Meg	RES, 1.0Meg ohm, 5%, 0.1W, 0603	0603	CRCW06031M00JNEA	Vishay-Dale		
R4, R5	2	0	RES, 0 ohm, 5%, 0.1W, 0603	0603	CRCW06030000Z0EA	Vishay-Dale		
R6	1	0.13	RES, 0.13 ohm, 1%, 0.5W, 1210	1210	MCR25JZHFLR130	Rohm		
R8	1	8.66k	RES, 8.66k ohm, 1%, 0.1W, 0603	0603	CRCW06038K66FKEA	Vishay-Dale		
R9	1	20	RES, 20 ohm, 5%, 0.1W, 0603	0603	CRCW060320R0JNEA	Vishay-Dale		
R10	1	39k	RES, 39k ohm, 5%, 0.1W, 0603	0603	CRCW060339K0JNEA	Vishay-Dale		
R11	1	3.16k	RES, 3.16k ohm, 1%, 0.1W, 0603	0603	CRCW06033K16FKEA	Vishay-Dale		
R12	1	61.9k	RES, 61.9k ohm, 1%, 0.1W, 0603	0603	CRCW060361K9FKEA	Vishay-Dale		
R14	1	1.00k	RES, 1.00k ohm, 1%, 0.1W, 0603	0603	CRCW06031K00FKEA	Vishay-Dale		
TP1, TP9	2	Black	Test Point, TH, Multipurpose, Black	Keystone5011	5011	Keystone		
TP3, TP4, TP7, TP8, TP10	5	White	Test Point, TH, Multipurpose, White	Keystone5012	5012	Keystone		
U1	1		Wide Voltage Range Buck-Boost Controller, 20-pin TSSOP-EP, Pb-Free	MXA20A	LM25118MH/NOPB	National Semiconductor		

Notes:

Unless otherwise noted in the Alternate PartNumber and/or Alternate Manufacturer columns, all parts may be substituted with equivalents.

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