

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
1	C1, C7	2	330 μ F	450MXK330MEFCSN 30X30	RUBYCON	Aluminum Electrolytic, 450 V, \pm 20 %		Through Hole	
2	C8, C9, C2, C3, C4, C5	6	330 μ F	EKZN630ELL331MJ25S	NIPPON CHEMI-CON	Aluminum Electrolytic, 63 V, \pm 20 %		Through Hole	
3	C101	1	220 pF	DE2B3KY221KA3BM02F	MURATA	Disc Ceramic, 250 VAC, \pm 10 %		Through Hole	
4	C18 C19, C23, C42, C47, C71, C72, C73, C74, C94, C95, C96, C97, C98	14	100 nF			Ceramic, 25 V, \pm 10 %		1.0 x 0.5 (0402)	
5	C21	1	18 nF			Ceramic, 25 V, \pm 10 %		1.0 x 0.5 (0402)	
6	C5	1	1800 pF			Ceramic, 25 V, \pm 10 %		1.0 x 0.5 (0402)	
7	C24 ,C55, C58, C60, C61, C62, C67,C70, C99	9	1 μ F			Ceramic, 25 V, \pm 20 %		1.0 x 0.5 (0402)	
8	C25, C26, C75, C76	4	2.2 μ F			Ceramic, 16 V, \pm 10 %		1.0 x 0.5 (0402)	
9	C27, C51	2	330 nF	C3225X7T2E334K200AE	TDK	Ceramic, 250 V, \pm 10 %		3.2 x 2.5 (1210)	
10	C30	1	470 nF	LE474-M	OKAYA	Polypropylene Film, 275 V, \pm 10 %		Through Hole	
11	C31, C32, C63, C64	4	2.2 nF	DE2E3KY222MN3AM02F	MURATA	Disc Ceramic, 250 VAC , \pm 20 %		Through Hole	
12	C33, C65	2	2.2 μ F	890324026034CS	WURTH	Polypropylene Film, 275 V, \pm 10 %		Through Hole	
13	C34, C36	2	4.7 pF			Ceramic, 50 V, \pm 10 %		1.0 x 0.5 (0402)	
14	C35,C37	2	150 nF			Ceramic, 25 V, \pm 10 %		1.0 x 0.5 (0402)	
15	C38,C39	2	4.7 nF			Ceramic, 50 V, \pm 10 %		1.0 x 0.5 (0402)	
16	C40	1	120 nF			Ceramic, 25 V, \pm 10 %		1.6 x 0.8 (0603)	
17	C41	1	1 μ F			Ceramic, 25 V, \pm 10 %		2.0 x 1.2 (0805)	
18	C43, C45, C80, C81	4	1 nF			Ceramic, 50 V, \pm 10 %		1.0 x 0.5 (0402)	
19	C44, C46	2	3.3 nF			Ceramic, 25 V, \pm 10 %		1.0 x 0.5 (0402)	
20	C48	1	22 μ F			Ceramic, 25 V, \pm 10 %		3.2 x 1.6 (1206)	
21	C49, C50	2	1 μ F			Ceramic, 50 V, \pm 10 %		1.6 x 0.8 (0603)	
22	C50	1	2.7 nF			Ceramic, 50 V, \pm 10 %		1.0 x 0.5 (0402)	
23	C52	1	220 nF	LE224-M	OKAYA	Polypropylene Film, 275 V, \pm 10 %		Through Hole	

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24	C53, C54, C55, C56, - C57	5	220 pF			Ceramic, 50 V, ±5 %		1.6 x 0.8 (0603)	
25	C66	1	10 µF			Ceramic, 25 V, ±20 %		1.6 x 0.8 (0603)	
26	C78, C79	2	100 pF	DE2B3KY101KA3BM02F	MURATA	Disc Ceramic, 250 VAC, ±10 %		Through Hole	
27	C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C806	10	10 µF			Ceramic, 25 V, ±10 %		3.2 x 1.6 (1206)	
28	C92, C93, C100, C102	4	33 nF			Ceramic, 100 V, ±5 %		2.0 x 1.2 (0805)	
29	C103	1	0.1 µF	RDER72J104K4K1H03B	MURATA	Radial Ceramic, 630 V, ±10 %		Through Hole	
30	C800	1	6.8 µF	EKXJ451ETD6R8MJ16S	NIPPON CHEMI-CON	Aluminum Electrolytic, 450 V, ±20 %		Through Hole	
31	C801, C807	2	22 nF	C3216X7R2J223K130AA	TDK	Ceramic, 630 V, ±10 %		3.2 x 1.6 (1206)	
32	C802	1	1.5 µF			Ceramic, 50 V, ±10 %		2.0 x 1.2 (0805)	
33	C804	1	330 µF	EKZH350ETD331MJC5S	NIPPON CHEMI-CON	Aluminum Electrolytic, 35 V, ±20 %		Through Hole	
34	C805	1	1 nF			Ceramic, 50 V, ±10 %		1.0 x 0.5 (0402)	
35	C809	1	1000 µF	EKZH160ELL102MH20D	NIPPON CHEMI-CON	Aluminum Electrolytic, 16 V, ±20 %		Through Hole	
36	C810	1	470 pF			Ceramic, 50 V, ±5 %		1.0 x 0.5 (0402)	
37	C811	1	470 pF	DE2B3SA471KN3AX02F	MURATA	Disc Ceramic, 300 VAC, ±10 %, Y2		Through Hole	
38	CN1	1	15 A	AC-P05CP24	ECHO ELECTRIC	250 V			
39	CN10	1		A2-2PA-2.54DSA	HIROSE				
40	CN6, CN7	2		OP-910-F73	OSADA	1000V, 60A			
41	CN8, CN9	2		5045-02A	MOLEX				
42	D1, D2	2		TRS8A65F	TOSHIBA	SiC schottky darrier diode		Through Hole	
43	D12, D13, D30, D31, D32, D33	6		1SS352	TOSHIBA	Switching diode	SOD-323	2.5 x 1.25	
44	D14, D81	2		1SS403E	TOSHIBA	Switching diode	SOD-523	1.6 x 0.8	
45	D16, D17, D20, D21, D34, D35	6		CMF01	TOSHIBA	Fast recovery diode	M-FLAT	2.4 x 4.7	
46	D18, D19	2		FSU05D60	KYOCERA	Fast recovery diode		Through Hole	
47	D22, D23, D24, D25, D26, D27, D28, D29	8		TBAT54	TOSHIBA	Schottky darrier diode	SOT-23	2.9 x 2.4	

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
48	D3	1		GSIB2580	VISHAY	Diode bridge		Through Hole	
49	D36, D37, D38, D39, D40, D41, D42, D43, D44, D45, D46, D47, D51, D52, D53, D54, D55, D56, D57, D58, D83	21		CRS01	TOSHIBA	Schottky darrier diode	S-FLAT	1.6 x 3.5	
50	D48	1		BAS316	TOSHIBA	Switching diode	SOD-323	2.5 x 1.25	
51	D50	1		MMSZ4699T1G	ON Semiconductor	Zener diode	SOD-123	3.68 x 1.6	
52	D8, D9	2		CRG04A	TOSHIBA	General purpose diode	S-FLAT	1.6 x 3.5	
53	D80	1		CRF03A	TOSHIBA	Fast recovery diode	S-FLAT	1.6 x 3.5	
54	D82, D90, D91, D92	4		CMH07	TOSHIBA	High efficiency diode	M-FLAT	2.4 x 4.7	
55	F1	1	15 A	0215015.MXEP	Littelfuse				
56	F8	1	2A	80812000440	Littelfuse				
57	FB1,FB2	2		FBMJ3216HS800-T	TAIYO YUDEN				
58	IC1	1		HF81GS	MPS				
59	IC10	1		UCC28950PWR	Texas Instruments				
60	IC11	1		TLV70433DBVT	Texas Instruments				
61	IC13, IC14, IC15, IC16	4		TLP2767	TOSHIBA	Photocoupler	SO6L	3.84 x 10	
62	IC2, IC6, IC7	3		UCC27524AD	Texas Instruments				
63	IC20	1		ALKG8210	PANASONIC				
64	IC21, IC22, IC23, IC24	4		TC7SZ04FU	TOSHIBA		SOT-353	2.0 x 2.1	
65	IC3	1		UCC28070APWR	Texas Instruments				
66	IC4, IC5	2		UCC27714DR	Texas Instruments				
67	IC8	1		LM74700-Q1	Texas Instruments				
68	IC80	1		UCC28711DR	Texas Instruments				
69	IC81	1		LM317MDCY	Texas Instruments				
70	L1, L2	2	230 μ H	THN23/14V-08231	TMP				
71	L11, L12	2	13 mH	SCF27-10-1300	TOKIN				
72	L3	1	13 nH	NPA080-13x2-20T	FURUKAWA DENSHI				
73	L5, L6	2	27 μ H	AG-1391	TOKYO SEIDEN				

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74	Q1,Q2	2		TK25N60X	TOSHIBA	MOSFET		Through Hole	
75	Q15, Q16, Q17, Q18	4		TPH2R408QM	TOSHIBA	MOSFET	SOP Advance	5.0 x 6.0	
76	Q3, Q4, Q5, Q6	4		TK25N60X5	TOSHIBA	MOSFET		Through Hole	
77	Q7, Q8, Q9, Q10, Q11, Q12, Q13, Q14	8		TPH2900ENH	TOSHIBA	MOSFET	SOP Advance	5.0 x 6.0	
78	Q80	1		TK12A80W	TOSHIBA	MOSFET		Through Hole	
79	R1, R89, R91, R92, R94, R95	6	1 M			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
80	R100	1	124 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
81	R101	1	187 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
82	R102	1	30 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
83	R114, R115	2	2.2			500 mW, $\pm 5\%$		3.2 x 2.5 (1210)	
84	R116, R120, R121, R122, R123, R124, R125	1	7			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
85	R18, R20, R23, R24, R126, R132, R134, R136	8	10			500 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
86	R127, R133, R135, R137	4	0			500 mW		3.2 x 1.6 (1206)	
87	R138	1	10	A5MC-100JK	Uchihashi Estec	2.1W, $\pm 5\%$		Through Hole	
88	R149, R150, R151, R152	4	680			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
89	R178, R179	2	300 k			1 W, $\pm 5\%$		6.4 x 3.2 (2512)	
90	R212, R213, R214, R215	4	3.01			500 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
91	R185	1	20			250 mW, $\pm 5\%$		3.2 x 1.6 (1206)	
92	R19, R21, R22, R25, R28, R29, R31, R33, R71, R73, R803	10	10 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
93	R194, R195, R196, R197	4	620			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
94	R199	1	10 k			1 W, $\pm 5\%$		6.4 x 3.2 (2512)	
95	R2, R90	2	23.2 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	

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96	R42	1	43.2 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
97	R43, R44, R45, R811	3	2.37 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
98	R62, R69, R110, R111, R112, R113, R117, R153, R154, R155, R156, R157, R160, R163, R166, R204, R205, R206, R227, R228, R805	20	0			100 mW		1.6 x 0.8 (0603)	
99	R47	1	8.25 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
100	R49	1	22.6			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
101	R51	1	13 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
102	R52	1	33 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
103	R53	1	82 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
104	R104, R187, R188, R189, R190, R191, R192, R193, R807	8	100 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
105	R54	1	13 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
106	R56	1	127 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
107	R57	1	61.9 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
108	R6	1	2.2			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
109	R60	1	47 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
110	R61	1	820			125 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
111	R63	1	470			125 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
112	R130, R172, R173	3	100			125 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
113	R64, R65, R66, R98, R99	5	6.8 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
114	R67, R81, R85, R169, R170	5	1 k			125 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
115	R7, R8, R801	2	33			500 mW, $\pm 5\%$		3.2 x 2.5 (1210)	

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116	R72, R74, R108, R109	4	5.11			500 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
117	R75	1	49.9			125 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
118	R76, R105	2	100 k			1 W, $\pm 5\%$		6.4 x 3.2 (2512)	
119	R107, R128, R800	3	27 k			3 W, $\pm 5\%$		Through Hole	
120	R79, R80	2	75 k			500 mW, $\pm 1\%$		3.2 x 2.5 (1210)	
121	R82, R86	2	2.4 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
122	R83, R87, R9	3	2 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
123	R93, R103	2	115 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
124	R96	1	4.7 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
125	R97	1	3.65 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
126	R174	1	1 M			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
127	R802	1	10			250 mW, $\pm 5\%$		3.2 x 1.6 (1206)	
128	R804	1	2.7 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	
129	R806	1	22			250 mW, $\pm 5\%$		3.2 x 1.6 (1206)	
130	R808	1	110 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
131	R809	1	27 k			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
132	R810	1	270			100 mW, $\pm 1\%$		1.6 x 0.8 (0603)	
133	R812, R813	2	1.1			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
134	R814	1	1.5			250 mW, $\pm 1\%$		3.2 x 1.6 (1206)	
135	R820	1	1.2 k			250 mW, $\pm 5\%$		3.2 x 1.6 (1206)	
136	RV1	1	560 V	TND14V-561KB00AAA0	NIPPON CHEMICON			Through Hole	
137	T2, T3	2	1:200	P009-203	PONY			Through Hole	
138	T4	1	1:100	PE-63587NL	PULSE ELECTRONICS			Through Hole	
139	T5, T6	2	26:4:4	AN0545	TOKYO SEIDEN			Through Hole	
140	T8	1	36:8:5	WT2020-A	PULSE ELECTRONICS			Through Hole	

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
141	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP15, TP17, TP18, TP19, TP20, TP21, TP22, TP24, TP25, TP28, TP29, TP30, TP31, TP38, TP39, TP44, TP80, TP81, TP82	31		HK-2-S	MAC8				
142	TP41, TP42	2		LC-22-S-BLACK	MAC8				
143	TP43, TP45	2		LC-22-S-WHITE	MAC8				
144	HS5, HS6	2		BPUS15-25	MIZUTANI				
145	SC1, SC2	2		B-0306	HIROSUGI	M3-6			
146	fan1	1		9CRB0412P5S201	SANYO DENKI	DC FAN			
147	C20, C77	2	100 pF			Ceramic, 50 V, ± 5 %		1.6 x 0.8 (0603)	Not Mounted
148	C803	1				Ceramic		1.6 x 0.8 (0603)	Not Mounted
149	C808	1	2.2 nF			Ceramic, 50 V, ± 10 %		1.0 x 0.5 (0402)	Not Mounted
150	C812	1						1.0 x 0.5 (0402)	Not Mounted
151	C68, C69	2	330 nF	C3225X7T2E334K200AE	TDK	Ceramic, 250 V, ± 10 %		3.2 x 2.5 (1210)	Not Mounted
152	C104, C105, C106, C107	4	220 pF			Ceramic, 250 V, ± 10 %		2.0 x 1.2 (0805)	Not Mounted
153	D49	1		CRZ15	TOSHIBA	Zener diode	S-FLAT	1.6 x 3.5	Not Mounted
154	D84	1		TBAT54	TOSHIBA	Schottky darrier diode	SOT-23	2.9 x 2.4	Not Mounted
155	R46, R48, R55, R58, R59, R70, R171, R175, R176, R177, R180, R181, R182, R183, R184, R198, R207, R208, R209, R220, R221, R222, R223, R224, R225	25	0			100 mW		1.6 x 0.8 (0603)	Not Mounted
156	R50	1	825 k			100 mW, ± 1 %		1.6 x 0.8 (0603)	Not Mounted
157	R77, R78, R106, R129	4	27 k			3 W, ± 5 %		Through Hole	Not Mounted

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package name	Standard dimensions mm (inch)	Not Mounted
158	R118, R119, R140, R141	4	33			1 W, $\pm 5\%$		6.4 x 3.2 (2512)	Not Mounted
159	R200, R201	2	10 k			1 W, $\pm 5\%$		6.4 x 3.2 (2512)	Not Mounted
160	R210, R211	2	6.8 k			100 mW, $\pm 5\%$		1.6 x 0.8 (0603)	Not Mounted

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