

Surface Mount

Quantity	Designator	Description	Footprint	Cap	Value	Res	Manufacturer	Manufacturer Part Number	Supplier	Supplier Part Number
4	C1, C15, C34, C42	CAP PEN 10NF 100V 5% 1206	CAPC3216M	10nF	10nF		Kyocera AVX	CB017E0103J8A	Digi-Key	478-13090-1-ND
4	C2, C12, C37, C41	CAP FILM 0.18UF 5% 50VDC 1812	CAPC4532M	0.18uF	0.18uF		KEMET	LDECC3180JA5N00	Digi-Key	399-18519-1-ND
2	C6, C17	CAP CER 1206 0.1UF 250V X7R	CAPC3216M	100nF	0.1uF		KEMET	C1206C104KARECAUTO	Digi-Key	399-17175-6-ND
15	C18, C21, C24, C31, C36, C45, C51, C54, C58, C61, C67, C69, C111, C113, C116	CAP CER 10NF 250V X7R 1206	CAPC3216M	10nF	10nF		KEMET	C1206C103JARACTU	Digi-Key	399-7174-1-ND
25	C22, C23, C25, C26, C27, C29, C30, C32, C33, C35, C40, C43, C44, C52, C53, C55, C59, C62, C65, C68, C70, C75, C110, C112, C115	CAP CER 1UF 25V X7R 1206	CAPC3216M	1uF	1uF		KEMET	C1206C105M3RACTU	Digi-Key	399-8148-1-ND
1	C57	CAP CER 1NF 100V NP0 1206	CAPC3216M	1nF	1nF		KEMET	C1206C102J5GACAUTO	Digi-Key	399-7002-6-ND
1	C63	CAP CER 10NF 50V COG 1206	CAPC3216M	10nF	10nF		TDK Corporation	C3216COG1H103J060AA	Digi-Key	445-7688-1-ND
3	C64, C72, C73	CAP CER 470PF 100V NP0 1206	CAPC3216M	330pF	330pF		KEMET	C1206C331J5GACTU	Digi-Key	399-8186-1-ND
2	C66, C120	CAP CER 100PF 100V NP0 1206	CAPC3216M	100pF	100pF		Kemet	C1206C101J1GACTU	Digi-Key	399-1206-1-ND
3	D2, D3, D17	RECT BRIDGE GPP 400V 2A DFS	SOIC254P670X290-4M		DF204ST		Comchip	DF204ST-G	Digi-Key	641-1464-1-ND
11	D5, D6, D7, D8, D10, D15, D16, D18, D53, D125, D126	Diode Switching 400V 1A 2-Pin DO-214AC	SMA-D	12pF	S1G		Fairchild	S1G	Digi-Key	S1GFSCT-ND
7	D9, D11, D12, D13, D52, D54, D55	DIODE GP 75V 150MA SOD123FL	SOD123		1N4148		Vishay Semiconductor	1N4148WFL-G3-08	Digi-Key	1N4148WFL-G3-08GICT-ND
2	Q1, Q2	TRANS NPN 40V 0.2A SOT23	SOT23-3M		2N3904		ON Semiconductor	MMBT3904LT1G	Digi-Key	MMBT3904LT1GOSCT-ND
2	Q3, Q4	TRANS PNP 40V 0.2A SOT23	SOT23-3M		2N3906		ON Semiconductor	MMBT3906LT1G	Digi-Key	MMBT3906LT1GOSCT-ND
1	Q5	TRANS PNP 200V 0.5A SOT-223	SOT223-4M		FZT796A		Diodes Zetex	FZT796ACT-ND	Digi-Key	FZT796ACT-ND
6	R1, R2, R3, R4, R19, R20	RES 1K OHM 1% 1W 2512	RESC6432BM		1K	1kR	Stackpole Electronics	RMCF2512FT1K00	Digi-Key	RMCF2512FT1K00CT-ND
2	R5, R17	RES 100 OHM 1% 1/4W 1206	RESC3216M		150	100R	Stackpole Electronics	RMCF1206FT100R	Digi-Key	RMCF1206FT100RCT-ND
1	R6	RES 22.1K OHM 1% 1/4W 1206	RESC3216M		22.1K	22.1kR	Stackpole Electronics	RMCF1206FT22K1	Digi-Key	RMCF1206FT22K1CT-ND
2	R7, R21	RES 1.05K OHM 1% 1/4W 1206	RESC3216M		1.05K	1.05kR	Stackpole Electronics	RMCF1206FT1K05	Digi-Key	RMCF1206FT1K05CT-ND
11	R8, R9, R12, R16, R53, R57, R65, R73, R117, R123, R124	RES 10K OHM 1% 1/4W 1206	RESC3216M		10K	10kR	Stackpole Electronics	RMCF1206FT10K0	Digi-Key	RMCF1206FT10K0CT-ND
10	R10, R59, R62, R64, R69, R70, R71, R72, R75, R76	RES 100K OHM 1% 1/4W 1206	RESC3216M		100K	100kR	Stackpole Electronics	RMCF1206FT100K	Digi-Key	RMCF1206FT100KCT-ND
1	R11	RES 2.67K OHM 1% 1/4W 1206	RESC3216M		2.67K	2.74kR	Stackpole Electronics	RMCF1206FT2K74	Digi-Key	RMCF1206FT2K67CT-ND
2	R13, R68	RES 56.2K OHM 1% 1/4W 1206	RESC3216M		56.2K	56.2kR	Stackpole Electronics	RMCF1206FT56K2	Digi-Key	RMCF1206FT56K2CT-ND
9	R14, R52, R56, R58, R60, R74, R77, R78, R118	RES 1K OHM 1% 1/4W 1206	RESC3216M		1K	1kR	Stackpole Electronics	RMCF1206FT1K00	Digi-Key	RMCF1206FT1K00CT-ND
1	R15	RES 1M OHM 1% 1/4W 1206	RESC3216M		1M	1MR	Stackpole Electronics	RMCF1206FT1M00	Digi-Key	RMCF1206FT1M00CT-ND
1	R18	RES 453 OHM 1% 1/4W 1206	RESC3216M		453	453R	Stackpole Electronics	RMCF1206FT453R	Digi-Key	RMCF1206FT453RCT-ND
1	R50	RES 18.2K OHM 1% 1/4W 1206	RESC3216M		18.2K	18.2kR	Stackpole Electronics	RMCF1206FT18K2	Digi-Key	RMCF1206FT18K2CT-ND
2	R51, R54	RES 681 OHM 1% 1/4W 1206	RESC3216M		681	681R	Stackpole Electronics	RMCF1206FT681R	Digi-Key	RMCF1206FT681RCT-ND
1	R55	RES 2.21K OHM 1% 1/4W 1206	RESC3216M		2.21K	2.21kR	Stackpole Electronics	RMCF1206FT2K21	Digi-Key	RMCF1206FT2K21CT-ND
1	R61	RES 49.9K OHM 1% 1/4W 1206	RESC3216M		49.9K	49.9kR	Stackpole Electronics	RMCF1206FT49K9	Digi-Key	RMCF1206FT49K9CT-ND
1	R63	RES 5.62K OHM 1% 1/4W 1206	RESC3216M		5.62K	5.62kR	Stackpole Electronics	RMCF1206FT5K62	Digi-Key	RMCF1206FT5K62CT-ND
2	R66, R67	RES 1.8 OHM 1% 1W 2512	RESC6432BM		1.8	1.8R	Stackpole Electronics	RMCF2512FT1R80	Digi-Key	RMCF2512FT1R80CT-ND
2	R79, R80	RES 0.5 OHM 1% 2W 2512RES 0.5 OHM 1% 2W 2512	RESC6432BM		0.5	500mR	Stackpole Electronics	CSR2512FTR500	Digi-Key	CSR2512FTR500CT-ND
4	R120, R121, R122, R127	RES 20K OHM 1% 1/4W 1206	RESC3216M		20K	20kR	Stackpole Electronics	RMCF1206FT20K0	Digi-Key	RMCF1206FT20K0CT-ND
1	U2	LDO Pos 1.2V to 37V 1A 4-Pin SOT-223	SOT223-4M		LM317		Texas Instruments	LM317AEMPX/NOPB	Digi-Key	LM317AEMPX/NOPBCT-ND
1	U3	OPA172IDCKT 10 MHz,10 V/s, 4.5V to 36V, SC-70	SOT23-5AM		TLV271		Texas Instruments	OPA172IDBVR	Digi-Key	296-40433-1-ND
1	U4	LDO Neg -1.2V to -37V 1A 4-Pin SOT-223	SOT223-4M		LM337		Texas Instruments	LM337IMP/NOPB	Digi-Key	LM337IMP/NOPBCT-ND
1	U5	IC REG LINEAR 15V 500MA DPAK	DPAK-M		78M15		ON Semiconductor	MC78M15CDTRKG	Digi-Key	MC78M15CDTRKGOSDKR-ND
1	U6	IC REG LINEAR -15V 500MA DPAK	DPAK-M		79M15		ON Semiconductor	MC79M15CDTRKG	Digi-Key	MC79M15CDTRKGOSDKR-ND
2	U50, U51	IC OPAMP GP 3MHZ RRO 8SOIC	SOIC127P600X168_HS-8N		TLV272		Texas Instruments	TLV272IDR	Digi-Key	296-10655-1-ND
1	U52	IC QUAD NAND GATE, 2I/P, SOIC-14	SOIC127P600X14-M		4011		ON Semiconductor	MC14011BDR2G	Digi-Key	MC14011BDR2GOSCT-ND
1	U100	IC OPAMP AUDIO 11MHZ RRO 8SOIC	SOIC127P600X168_HS-8N		OPA1641AIDR		Texas Instruments	OPA1641AIDR	Digi-Key	296-48624-1-ND
1	U102	IC COUNTER 12BIT CMOS 16SOIC	D16-M	7.5pF	4040		ON Semiconductor	MC14040BDR2G	Digi-Key	MC14040BDR2GOSCT-ND
1	U103	OPTOISO 5KV TRANS W/BASE 6SMD	SOIC127P1090X6		CNY17-1S		Vishay Lite-On	CNY17-1S	Digi-Key	160-1309-5-ND

Through Hole

2	C3, C16	CAP PET 10nF 160 VAC 250 VDC 5%	RAD/L7.3/W2.5/LS5.0/D0.575	10nF	10nF		Kemet Arcotronics	R82IC2100DQ50J	Digi-Key	399-19339-1-ND
2	C4, C13	CAP MET POLY 0.15UF TOL +-10% RADIAL 250V	RAD/10.5/W6.5/LS7.5/D0.7	150nF	0.15uF		CDE Illinois Capacitor	154MMR250K	Digi-Key	1572-1198-ND
1	C5	CAP ALUM 2200UF 20% 160V SNAP	CAPR10-30-35	2.2mF	2200uF		Cornell Dubilier	381LQ222M160K052	Digi-Key	338-3669-ND
4	C7, C9, C38, C39	CAP ALUM 470UF 20% 35V RADIAL	CAPPR5-10x12.5-STEP	470uF	470uF		Rubycon	35ZL470MEFC10X20	Digi-Key	35ZL470MEFC10X20-ND
1	C8	CAP ALUM 2200UF 20% 80V SNAP	CAPR10-25-37	2.2mF	2200uF		Cornell Dubilier	381LX222M080H452	Digi-Key	338-3786-ND
9	C19, C20, C50, C56, C60, C71, C74, C114, C117	CAP ALUM 100UF 20% 35V THRU HOLE	CAPPR2.5-6.3X10	100uF	100uF		Rubycon	35YXJ100M6.3X11	Digi-Key	1189-2260-ND
1	C28	CAP ALUM 100UF 20% 25V RADIAL	CAPPR2-5x11	100uF	100uF		Rubycon	25YXJ100M5X11	Digi-Key	1189-2237-ND
2	HS50, HS51	Heat Sinks HTSNK TO-220 218 247 BLK ANODIZED	HEATSINKVERT		RA-T2X-64E		Ohmite	RA-T2X-64E	Digi-Key	RA-T2X-64E-ND
4	J1, J50, J51, J128	CONN HEADER VERT 3POS 2.54MM	DTA-100-3		640456-3		TE Connectivity	640456-3	Digi-Key	A19470-ND
5	J2, J3, J52, J100, J127	CONN HEADER VERT 2POS 2.54MM	DTA-100-2		640456-2		TE Connectivity	640456-2	Digi-Key	A1921-ND
4	J4, J5, J6, J7	CONN HEADER VERT 3POS 5.08MM	TE-EP-3		1744037-3		TE Connectivity	1744037-3	Digi-Key	A112699-ND
4	J101	CONN HEADER VERT 4POS 2.54MM	DTA-100-4		640456-4		TE Connectivity	640456-4	Digi-Key	A1922-ND
	T2PP, T2PS, T2S	CONN HEADER VERT 4POS 5.08MM	TE-EP-4		1744037-4		TE Connectivity	1744037-4	Digi-Key	A112700-ND
1	K1	RELAY GEN PURPOSE SPDT 5A 12V	G2R--1-H		G2R-1-H-DC1		Omron	G2R-1-H-DC12	Digi-Key	Z11701-ND
2	K50, K125	RELAY GEN PURPOSE SPDT 1A 125V	1FORMC-OMR		G5V-1-DC12		Omron	G5V-1-DC12	Digi-Key	Z774-ND
2	Pot1, Pot51	TRIMMER 20K OHM 0.2W TH	3306P-CCW		20K	20kR	Bourns	3306P-1-203	Digi-Key	3306P-203-ND
1	Pot52	TRIMMER 2K OHM 0.2W TH	3306P-CCW		2K	2kR	Bourns	3306P-1-202	Digi-Key	3306P-202-ND
2	Q50, Q51	TRANS NPN DARL 350V 10A TO247	TO-247		BU323ZG		ON Semiconductor	BU323ZG	Digi-Key	BU323ZGOS-ND
2	T1, T3	XFRMR LAMINATED 5VA THRU HOLE	VPPXX-SW		VPP28-180		Triad Magnetics	VPP28-180	Digi-Key	237-1086-ND
25	TP1, TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10, TP11, TP12, TP14, TP15, TP16, TP17, TP50, TP51, TP52, TP53, TP54, TP55, TP56, TP57, TP102	TP Thru-Hole	TP-.038, TP-.063		TP Thru-Hole		UW	Gold	UW	Gold

A112699-ND