

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free	Comments
C1	1	capacitor	470 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C2	1	MLC capacitor	10 nF/40 V	10%	APA_E4_L13_H10_F	Multicomp	BCP2251103	Yes	Yes	
C3	1	electrolytic capacitor	4.7 uF/35 V	20%	APA_CH_D5_H11_F	Multicomp	MCRH35V475M5X11	Yes	Yes	
C4	1	capacitor	100 pF/1 kV	10%	CAPA_DISK_P5	Murata	DEBB33A101K1C1B	Yes	Yes	
C6	1	capacitor	100 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C7	1	electrolytic capacitor	220 uF/35 V	20%	APA_CH_D10_H13_F	Rubicon	35L220MFC1D12.5	Yes	Yes	
C8	1	capacitor	1 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C9	1	capacitor	100 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C10	1	capacitor	100 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C11	1	X2 capacitor	470 nF/250 V	20%	APA_E9_L18_H17_F	Epcos	B3292323474M189	Yes	Yes	X2
C12	1	electrolytic capacitor	100 uF/400 V	20%	APA_CH_D18X35-5P	Panasonic	ECA2GM101	Yes	Yes	
C13	1	capacitor	2.2 nF Y1	10%	PA_DISK_ES_D12_F	Vishay	440LD22	Yes	Yes	Y1
C14	1	capacitor	1 nF	20%	805	Multicomp	std_ceramic	Yes	Yes	
C15	1	capacitor	220 pF	20%	1206	Multicomp	std_ceramic	Yes	Yes	
C16	1	capacitor	4.7 nF / 630 V	20%	1206HT	Multicomp	std_ceramic	Yes	Yes	high-voltage
C17	1	electrolytic capacitor	47 uF/35 V	20%	A_CH_D6-3_H11-5	Multicomp	MCRH35V476M6.3x11	Yes	Yes	
C18	1	capacitor	1 nF/200 V	10%	805	Multicomp	std_ceramic	Yes	Yes	
C19	1	capacitor	4.7 nF / 630 V	20%	1206HT	Murata	GRM31BR70472XW01L	Yes	Yes	high-voltage
C5A	1	electrolytic capacitor	680 uF/35 V	20%	PA_CH_D12-5_H20	Rubicon	35ZL680M12.5X20	Yes	Yes	35-V Low ESR only
C5B	1	electrolytic capacitor	680 uF/35 V	20%	PA_CH_D12-5_H20	Rubicon	35ZL680M12.5X20	Yes	Yes	35-V Low ESR only
R1	1	resistor	0R	1%	805	Multicomp	std_ceramic	Yes	Yes	
R2	1	resistor	0R	1%	805	Multicomp	std_ceramic	Yes	Yes	
R3	1	resistor	0R	1%	805	Multicomp	std_ceramic	Yes	Yes	
R4	1	resistor	10k_nc	1%	805	Multicomp	std_ceramic	Yes	Yes	not wired
R5	1	resistor	33k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R7	1	resistor	1k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R8	1	resistor	1k	1%	1206	Multicomp	std_ceramic	Yes	Yes	
R9	1	resistor	24.9k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R10	1	resistor	100k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R11	1	resistor	47k	5%	vertical mounting	Vishay	PR0300204702AC00	Yes	Yes	3 W
R12	1	resistor	44.9k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R13	1	resistor	47k	5%	vertical mounting	Vishay	PR0300204702AC00	Yes	Yes	3 W
R14	1	resistor	33k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R15	1	resistor	2M	1%	805	Multicomp	std_ceramic	Yes	Yes	
R16	1	resistor	22R	1%	1206	Multicomp	std_ceramic	Yes	Yes	
R17	1	resistor	2M	1%	805	Multicomp	std_ceramic	Yes	Yes	
R18	1	resistor	47k	1%	1206	Multicomp	std_ceramic	Yes	Yes	
R19	1	resistor	1k5	1%	805	Multicomp	std_ceramic	Yes	Yes	
R20	1	resistor	2M	1%	805	Multicomp	std_ceramic	Yes	Yes	
R21	1	resistor	22R	1%	RES_1W_DSXL12_J	Vishay	CF122000R4E14	Yes	Yes	1 W
R22	1	resistor	10k	1%	805	Multicomp	std_ceramic	Yes	Yes	
R23	1	resistor	910R	1%	805	Multicomp	std_ceramic	Yes	Yes	
R24	1	resistor	10k	1%	1206	Multicomp	std_ceramic	Yes	Yes	
R25	1	resistor	47R	1%	2512	Multicomp	MCPWR127EA0470	Yes	Yes	1 W
R26	1	resistor	47R	1%	2512	Multicomp	MCPWR127EA0470	Yes	Yes	1 W
R27	1	resistor	2M	1%	805	Multicomp	std_ceramic	Yes	Yes	
R28	1	NTC resistor	NTC 5.8k@100deg	1%	NTC_D4_P254	Vishay	NTCLE10E3104B0	Yes	Yes	
R29	1	resistor	10k	1%	1206	Multicomp	std_ceramic	Yes	Yes	
R6A	1	resistor	1R	1%	2512	Bourns	CRM2512-FX-1R0DEL	Yes	Yes	1 W
R6B	1	resistor	1R	1%	2512	Bourns	CRM2512-FX-1R0DEL	Yes	Yes	1 W
R6C	1	resistor	1R	1%	2512	Bourns	CRM2512-FX-1R0DEL	Yes	Yes	1 W
F1	1	FUSE	2 A/250 V AC	-	FUSE_DS-5_H8-5_P	Schurter	0014.6618	Yes	Yes	
L1	1	MAGNETICS	2x10 mH	-	RN114-0.8-02	SCHAFNER	RN114-1.3-02	Yes	Yes	
L2	1	MAGNETICS	1 uH	-	WE-TI D7-8_H10_P	Würth	244772010	Yes	Yes	
T1	1	MAGNETICS	PQ256-1112	-	PQ25	Würth	750314896	no	Yes	
D1	1	DIODES	BAV21	-	DO35	On semi	BAV21	Yes	Yes	
D2	1	DIODES	BAV21	-	SOD123	Diodes inc	BAV21-7-F	Yes	Yes	
D3	1	DIODES	BAV21	-	SOD123	Diodes inc	BAV21-7-F	Yes	Yes	
D4	1	DIODES	1N4937	-	DO41	On semi	1N4937G	no	Yes	
D5	1	DIODES	MBR2020DCT	-	TO-220_RAD-SW25-	On semi	MBR2020DCT	no	Yes	
H51	1	HeatSink	SW25-2	-	HS	AAVID THERMALLOY	SW25-2	Yes	Yes	
D6	1	DIODES	MMSD4148T1	-	SOD123	On semi	MMSD4148T1	Yes	Yes	
D7	1	DIODES	1N966	-	DO35	On semi	1N966	Yes	Yes	16 V
D8	1	DIODES	MMSD4148T1	-	SOD123	On semi	MMSD4148T1	Yes	Yes	
D9	1	DIODES	Red LED	-	LED_3MM	Multicomp	703-0091	Yes	Yes	
D10B	1	DIODES	BAV70	-	SOT23	On semi	BAV70L11G	Yes	Yes	
D10B1	1	DIODES	BAW56	-	SOT23	On semi	BAW56L11G	Yes	Yes	
K4	1	DIODES	KBU4K	-	PONT_RD_KBU4	Vishay	KBU4K	Yes	Yes	
Q1	1	transistor	BC857	-	SOT23	On semi	BC857BL11G	Yes	Yes	
Q2	1	MOS	ICF38N62LL	-	TO-220_RAD-SW25-2	On semi	IP68R19C7	no	Yes	
H52	1	HeatSink	SW25-2	-	HS	AAVID THERMALLOY	SW25-2	Yes	Yes	
J1	1	Connector	JR2016-PCB	-	CON_20V_IL8-2015	Multicomp	JR2016-PCB	Yes	Yes	
J2	1	Connector	PMS-092	-	CON_BORNIER_2_P304	Multicomp	PMS-092P90	Yes	Yes	
J3	1	Connector	JUMPER	-	HE14_1X2	-	-	Yes	Yes	
J4	1	Connector	JUMPER	-	HE14_1X2	-	-	Yes	Yes	
J4	2	Jumper	JUMPER	-	FC1	-	65474-002LF	Yes	Yes	for J4 & J3
U1	1	IC	NCP1256	-	TSOP6	On semi	NCP1256BSN6T1G	no	Yes	65 kHz
U2	1	IC	NCP431	-	SOT23	On semi	NCP431	no	Yes	
U3	1	IC	SF4615A-4	-	DFP4_SMD	Vishay	SF4615A-4	no	Yes	4 opm grade
ST1	1	-	Jumper400	-	JUMPER400H	Harwin	D3082F05	Yes	Yes	
S1	1	-	Strap	-	STRAP_FL_400	isolated wire diam 0.8 mm	preform_400	Yes	Yes	strap
S2	1	-	Strap	-	STRAP_FL_400	isolated wire diam 0.8 mm	preform_400	Yes	Yes	strap
S3	1	-	Strap	-	STRAP_FL_400	isolated wire diam 0.8 mm	preform_400	Yes	Yes	strap
S4	1	-	Strap	-	STRAP_FL_200	isolated wire diam 0.8 mm	preform_200	Yes	Yes	strap
S5	1	-	Strap	-	STRAP_FL_200	isolated wire diam 0.8 mm	preform_200	Yes	Yes	strap
S6	1	-	Strap	-	STRAP_FL_400	isolated wire diam 0.8 mm	preform_400	Yes	Yes	strap
S7	1	-	Strap	-	STRAP_FL_400	isolated wire diam 0.8 mm	preform_400	Yes	Yes	strap
FX1	1	-	TM	-	FX_HOLE4_D10	RICHCO	TCBS-801	Yes	Yes	Plastic foot
FX2	1	-	TM	-	FX_HOLE4_D10	RICHCO	TCBS-802	Yes	Yes	Plastic foot
FX3	1	-	TM	-	FX_HOLE4_D10	RICHCO	TCBS-803	Yes	Yes	Plastic foot
FX4	1	-	TM	-	FX_HOLE4_D10	RICHCO	TCBS-804	Yes	Yes	Plastic foot