



Bill of Materials for the NCP1031POEEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D1	1	Zener Diode	9.1 V	NA	SOD-123	ON Semiconductor	MMSZ5239BT1,G	No	Yes
D6	1	Ultrafast Rectifier	1 A, 100 V	NA	SMA/SMB	ON Semiconductor	MURS110T3	No	Yes
D5	1	Schottky Rectifier	1 A, 40 V	NA	SMC	ON Semiconductor	MBRS340T3G	No	Yes
D3	1	Zener Diode	15 V	5%	SOD-123	ON Semiconductor	MMSZ5245BT1,G	No	Yes
D2	1	Zener Diode	24 V	5%	SOD-123	ON Semiconductor	MMSZ5252BT1,G	No	Yes
			28 V				MMSZ5255BT1,G	No	Yes
D4	1	Diode	100 V	NA	SOD-123	ON Semiconductor	MMSD4148,G	No	Yes
Q2	1	NPN Transistor	100 V	NA	SOT-23	ON Semiconductor	MMBT5550L,G	No	Yes
Q1	1	MOSFET	60 V, 115 mA	NA	SOT-23	ON Semiconductor	2N7002LT,G	No	Yes
Q3	1	Power MOSFET	100 V, 12 A	NA	DPAK-3	ON Semiconductor	NTD12N10	No	Yes
U1, U4	2	Programmable Zener	2.5-36 V	1%	SOIC-8	ON Semiconductor	TL431ACD	No	Yes
U3	1	Optocoupler	NA	NA	4 pin	Vishay	SFH615A-4	No	Yes
U2	1	Integrated Controller	NA	NA	SO-8	ON Semiconductor	NCP1031DR2G	No	Yes
C10	1	WYO "Y" Cap	1.0 nF	20%	LS = 0.25"	Vishay	WYO102MCMBF0KR	No	Yes
C6	1	Ceramic Capacitor	1.0 nF, 100 V	5%	0805	AVX	08051C102JAT2A	Yes	Yes
C1, C3, C8	3	Ceramic Capacitor	10 nF, 100 V	5%	0805	AVX	08051C103JAT2A	Yes	Yes
C9, C13	2	Ceramic Capacitor	0.1 uF, 50 V	10%	0805	AVX	08055C104JAT2A	Yes	Yes
C5	1	Ceramic Capacitor	2.2 nF, 1.0 kV	20%	LS = 0.25"	Vishay	562R5GAD22	Yes	Yes
C4	1	Electrolytic Capapacitor	47 or 68 uF, 100 V	20%	LS = 0.2"	Rubycon, UCC	100 NA47M 10x20	Yes	Yes
C11	1	Electrolytic Capapacitor	1000 to 1500 uF, 6.3 V	20%	LS = 0.15"	Rubycon, UCC	6.3 NA1000M 10x16	Yes	Yes
C12	1	Electrolytic Capapacitor	100 uF, 10 V	20%	LS = 0.1"	Rubycon, UCC	10 NA100M 6.3x11	Yes	Yes
C7	1	Electrolytic Capapacitor	10 uF, 16 V	20%	LS = 0.1"	Rubycon, UCC	16 TWL10M 4x7	Yes	Yes
C2	1	Electrolytic Capapacitor	1.0 uf to 2.2 uF, 35 V	20%	LS = 0.1"	Rubycon, UCC	50 TWL1M 5x11	Yes	Yes
R10	1	Resistor	10 K, 1/2 W	5%	2010	Vishay	CRCW2010-10K	Yes	Yes
R2	1	Resistor	6.2 K, 1/2 W	5%	2010	Vishay	CRCW2010-6.19K	Yes	Yes
R4	1	Resistor	137 , 1/4 W	1%	0805	Vishay	CRCW0805-137	Yes	Yes
R1	1	Resistor	24.9 K, 1/4 W	1%	0805	Vishay	CRCW0805-24.9K	Yes	Yes
R11	1	Resistor	47 , 1/4 W	1%	0805	Vishay	CRCW0805-47	Yes	Yes
R13	1	Resistor	180 , 1/4 W	1%	0805	Vishay	CRCW0805-180	Yes	Yes
R14	1	Resistor	1.0 K, 1/4 W	1%	0805	Vishay	CRCW0805-1.0K	Yes	Yes
R16,R17	2	Resistor	2.2 K, 1/4 W	1%	0805	Vishay	CRCW0805-2.2K	Yes	Yes
R9	1	Resistor	6.8 K, 1/4 W	1%	0805	Vishay	CRCW0805-6.81K	Yes	Yes
R8	1	Resistor	9.1 K, 1/4 W	1%	0805	Vishay	CRCW0805-9.09K	Yes	Yes
not used	0	Resistor (not used)	10 K, 1/4 W	1%	0805	Vishay	CRCW0805-10K	Yes	Yes
R15	1	Resistor	3.3 K, 1/4 W	1%	0805	Vishay	CRCRCW0805-3.3K	Yes	Yes
R6	1	Resistor	51 K, 1/4 W	1%	0805	Vishay	CRCW0805-51.1K	Yes	Yes
R5	1	Resistor	68 K, 1/4 W	1%	0805	Vishay	CRCW0805-68.1K	Yes	Yes
R7	1	Resistor	200 K, 1/4 W	1%	0805	Vishay	CRCW0805-200K	Yes	Yes
R3	1	Resistor	470 K, 1/4 W	1%	0805	Vishay	CRCW0805-470K	Yes	Yes
L1,L2	2	Inductor	4.7 uH, 3.0 A	NA	LS = 0.4"	Coilcraft	PCV-0-472-03	No	Yes
T1	1	Transformer, 10 W Flyback (Custom)	NA	NA	TH	Mesa Power Systems	13-1269	No	No
Input, Output	2	Terminal Blocks	-	-	5.08mm pitch	On Shore Technology Inc	OSTYC022150-ND	Yes	Yes