ON Semiconductor®

Bill of Materials for the NCP1070SOTGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D7	1	Schottky diode	2A, 40V	-	SMB	ON Semiconductor	MBRS2040LT3G	No	Yes
D1, 2, 3, 4	4	Diode - 60 Hz,	1A, 800V	-	SMA	ON Semiconductor	MRA4007	No	Yes
D5	1	Diode - fast recov	1A, 600V	-	axial lead	ON Semiconductor	1N4937	No	Yes
D6	1	Signal diode	100mA, 100V	-	SOD-123	ON Semiconductor	MMSD4148A	No	Yes
Z1	1	Zener diode	4.3V, 500 mW	-	SOD-123	ON Semiconductor	MMSZ5229B	No	Yes
U2	1	Optocoupler	CTR >/= 0.5	-	4-pin	Vishay or NEC	SFH6156A-4 or PS2561L-1	Yes	Yes
U1	1	Switcher IC - NCP1070	100 kHz	-	SOT223	ON Semiconductor	NCP1070ST100	No	Yes
C1	1	"X" cap	100nF, X2	-	12.5 x 6mm; LS=10mm	Rifa, Wima	TBD	Yes	Yes
C10	1	"Y1" cap, disc type	1nF, Y1	-	5 x 7mm disc, LS=6 mm	Rifa, Wima	TBD	Yes	Yes
C3	1	Ceramic cap, disc	1 nF, 1kV	5%	5 x 7mm disc, LS=6 mm	Rifa, Wima	TBD	Yes	Yes
C6	1	Ceramic cap, monolythic	1 nF, 50V	10%	1206	AVX, Murata	TBD	Yes	Yes
C7, C9	2	Ceramic cap, monolythic	100nF, 50V	10%	1206	AVX, Murata	TBD	Yes	Yes
C2	1	Electrolytic cap	10uF, 400/450V	10%	LS=5mm, D=12.5mm	UCC, Panasonic	TBD	Yes	Yes
C5	1	Electrolytic cap	4.7uF, 50Vdc	10%	LS=2 mm, D=5mm	UCC, Panasonic	TBD	Yes	Yes
C4	1	Electrolytic cap	22uF, 25V	10%	LS=2mm, D=5mm	UCC, Panasonic	TBD	Yes	Yes
C8	1	Electrolytic cap	1,200uF, 6.3V	10%	LS=5mm, D=12.5mm	UCC, Panasonic	TBD	Yes	Yes
R3	1	Resistor, 0.5W, metal film	68K, 0.5W	10%	Axial lead; LS=5mm	Ohmite, Dale	TBD	Yes	Yes
R1, R2	2	Resistor, 1/4W SMD	3.3 Meg	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
R5	1	Resistor, 1/4W SMD	10 ohms	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
R4	1	Resistor, 1/4W SMD	1K	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
R6	1	Resistor, 1/4W SMD	33 ohms	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
R7	1	Resistor, 1/4W SMD	1.5K	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
R8	1	Resistor, 1/4W SMD	750 ohms	5%	SMD 1206	AVX, Vishay, Dale	TBD	Yes	Yes
F1	1	Fuse, TR-5 style	1A	-	TR-5, LS=5mm	Minifuse	TBD	Yes	Yes
L1	1	Inductor (EMI choke)	1 mH, 500 mA	5%	See Wurth Drawing LS=5mm, D=8mm	Wurth Magnetics	7447728102	Yes	Yes
T1 (5Vout)	1	Transformer	EE13/6/6 core	-	See Mag Drawing	Wurth Magnetics	TBD	Yes	Yes