



Bill of Materials for the NCP1028LEDGEVB

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D1,D2,D3,D4	4	Axial Lead Rectification Diode	1A, 1000V diode	NA	Through hole	ON Semiconductor	1N4007	NO	YES
D5	1	Ultrafast diode	1A, 600V UFR diode	NA	Through hole	ON Semiconductor	MUR160G	NO	YES
D6	1	Schottky Rectifier	1A 100V	NA	Through hole	ON Semiconductor	MBR3100G	NO	YES
D7	1	500mW 5% DO-35 Zener Diode	18V	5%	Through hole	Vishay	1N5248B-TAP or -TR	YES	YES
D8	1	Small signal fast switching signal diode	100mA signal diode	NA	Through hole	Vishay	1N4148A-TAP or -TR	YES	YES
Q1	1	PNP signal transistor	TO-92 PNP signal transistor	NA	TO-92	ON Semiconductor	PN2907AG	NO	YES
U2	1	Optocoupler	CTR160-320% DIP-4	NA	DIP-4	Vishay	SFH615A-4	NO	YES
U1 Socket	1	Through Hole DIP Socket for U1	8 pin	NA	DIP-8	Tyco	1825093-2	YES	YES
U1	1	NCP1028 PWM Converter	100 kHz	NA	DIP-8	ON Semiconductor	NCP1028P065G	NO	YES
C1	1	"X" cap, disc type	10 nf "X2" capacitor, 270 Vac	20%	Through hole	Vishay	MKP 339 X2 Series 2222 339 22103	YES	YES
C9	1	"Y" cap, disc type	2.2 nf "Y2" capacitor, 270 Vac	20%	Through hole	Vishay	MKP 338 Y2 Series 2222 338 62222	YES	YES
C4	1	Ceramic cap, disc Z5U	1.5 nf, 1 kV capacitor (snubber)	20%	Through hole	Vishay	(R62R)5GAD15	YES	YES
C7	1	Ceramic cap, monolithic	100pf, 100V ceramic cap COG	5%	Through hole	BC Components	K101J15C0GH53L5	YES	YES
C6	1	Ceramic cap, monolithic	10 nf, 50V ceramic cap X7R	10%	Through hole	BC Components	K103K15X7RF53L5	YES	YES
C10	1	Ceramic cap, monolithic	0.1uF, 50V	20%	Through hole	AVX Corporation	5ZH104MACJI	YES	YES
C11	1	Ceramic cap, monolithic	0.1uF, 50V	20%	Through hole	AVX Corporation	5ZH104MACJI	YES	YES
C2, C3	2	Capacitor Electrolytic	10uf, 400Vdc, 10x20mm	20%	Through hole	Illinois Capacitor	106CKE400M	YES	YES
C5A, C5B	2	Electrolytic cap	470uf, 25V (low ESR)	20%	Through hole	Panasonic	EEU-FM1E471	YES	YES
C8	1	Electrolytic cap	10uf, 25V	20%	Through hole	Nichicon	UVZ1E100MDD	YES	YES
R1	1	Resistor, 2W Fuseable	4.7 ohm, 2W ceramic	10%	Through hole	Ohmite	OY47GK-E	YES	YES
R2	1	Resistor, 1W	47K, 1W	5%	Through hole	KOA Speer	MO1CT52R473J	YES	YES
R3A, R3B	2	Resistor,Metal Film 1/2W	1.8 ohm	5%	Through Hole	Multicomp	MCCFR0W4J018JA50	YES	YES
R8	1	Resistor, 1/2W	3M	5%	Through hole	Multicomp	MCRC1/4G305JT-RH	YES	YES
R7	1	Resistor, 1/4W	22K	5%	Through hole	Ohmite	OD223JE	YES	YES
R6	1	Resistor, 1/4W	1M	5%	Through hole	Ohmite	OD105JE	YES	YES
R9	1	Resistor, 1/4W	1.5K	5%	Through hole	Neohm (Tyco)	OD332JE	YES	YES
R10	1	Resistor, 0.1W	100 ohms	1%	Surface Mount	Vishay	CRCW06031000F	YES	YES
R11	1	Resistor,1/4W	10K	5%	Through hole	Ohmite	OD103JE	YES	YES
R4	1	Resistor, 1/4W	100 ohms	5%	Through hole	Ohmite	OD101JE	YES	YES
R5	1	Resistor, 1/4W	200 ohms	5%	Through hole	Multicomp	MCRC1/4G201JT-RH	YES	YES
L1	1	EMI Inductor, 1 mH @ 250 mA	1 mH @ 250 mA	10%	Through hole	Coilcraft	RFB0807-102	NO	YES
T1	1	Transformer 720 ma	Flyback Transformer	-	Through hole	Würth Elektronik	750311166	NO	YES
J1	1	AC Input Terminals	5.08MM 24-12 Awg Screw Clamp	-	Through hole	Weidmuller	1716020000	YES	YES
J2	1	Output Connector	6POS .100 RT/ANG AU	-	Through hole	Tyco	535676-5	YES	YES
E1,E2	2	Test Terminals LED String Connection	0.052" Mount Hole Test Point	-	Through hole	Kobiconn	151-103-RC	YES	YES
	1	PC Board "LED Driver" Rev B (NCP1014 /NCP1028 on Back of Board)	3.2"L x 2.1"W, double sided, FR-4	-					YES