



Bill of Materials NCP1013LED Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	1	X2-class EMI suppression capacitor	3.3nF, 250/275VAC			NIC	NPX332M275VX2 (Alt. SMD: NPX332M275VX2F)		Yes
C10	1	Ceramic chip capacitor	1µF, 16V X7R	20%	SMT1206	NIC	NMC1206X7R105K16		Yes
C2 & C3	2	General purpose high voltage	4.7µF, 400V			NIC	NREH4R7M400V10X16F		Yes
C4	1	Ceramic chip capacitor	220pF, 1kV			NIC	NMC-H1210NP0221K1KVTRPF		Yes
C5	1	General purpose low voltage electrolytic	22µF, 16V			NIC	NRSA220M16V5X11F (Alt. SMD: NACE220M16V4X5.5TR13F)		Yes
C6	1	Ceramic chip capacitor	1.0nF, 10V X7R			NIC	NMC0805X7R102K10		Yes
C7	1	Ceramic Y Capacitor	1nF Y1			Murata	DE1E3KX102MN4AL01		Yes
C8 & C9	2	Miniature low impedance electrolytic	470µ, 0.06Ω			NIC	NRSH471M16V8X11.5F (Alt. SMD: NACK471M35V12.5X14TR13F)		Yes
D1 - D4	4	Axial Lead Standard Recovery Rectifier	1A, 1000V		DO-41	ON Semiconductor	1N4007RLG		Yes
D5	1	40V 3A Schottky diode	MBRA340		DO-214AC (SMA)	ON Semiconductor	MBRA340T3G		Yes
D6	1	600V 1A Ultrafast rectifier	MURA160		DO-214AC (SMA)	ON Semiconductor	MURA160T3G		Yes
D7	1	200mW SOD-323 Zener diode	9.1V	5%	SOD-323	ON Semiconductor	MM3Z9V1T1G		Yes
IC1	1	Self-Supplied Monolithic Switcher for Low Standby-Power Offline SMPS	NCP1013, 100 kHz			ON Semiconductor	NCP1013100T3G	No	Yes
IC2	1	Opto-coupler HCPL-817 - Wide pitch	Wide pitch		4-DIP Wide	Agilent	HCPL-817-W0AE	No	Yes
L1	1	Power inductor	1mH, 250mA			Coilcraft	RFB0807-102L (Alt. SMD: NIC NPIS104T102KTRF)		Yes
Q1	1	General purpose PNP	BC857		SOT-23	ON Semiconductor	BC857ALT1G		Yes
R1	1	Axial lead carbon film resistor	15Ω, 1W			NIC	NRC100J150TRF		Yes
R2	1	Axial lead carbon film resistor	91kΩ, 1W			NIC	NRC100J913TRF		Yes
R3 & R4	2	Resistor thick film NRC	1.8Ω / 0.33W			NIC	NRC25J1R8TR		Yes
R5	1	Resistor thick film NRC	47Ω / 0.125W			NIC	NRC10J470TR		Yes
R6	1	Resistor thick film NRC	200Ω / 0.125W			NIC	NRC10J201TR		Yes
TX1	1	5W Flyback transformer	Custom			NIC	NLT181814W2NT128UT10P8C2F		Yes