



Bill of Materials for the NCP1339GGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	1	Y1 capacitor, 250 V	2.2nF, 250V	-	through-hole	MURATA	DE1E3KX222MA5B	Yes	Yes
C2	1	X2 capacitor, 305 V	330nF, 305V	-	through-hole	EPCOS	B32922D3334K	No	Yes
C3	1	Electrolytic capacitor, 400 V	82uF, 400V	-	through-hole	NICHICON	LGJ2G820MELA20	No	Yes
C4	1	Ceramic Capacitor, Axial, 1000V	NC, 1000V	10%	SMD0805	Standard	Standard	Yes	Yes
C5	1	Ceramic Capacitor, Axial, 1000V	220pF, 1000V	10%	SMD1206	Standard	Standard	Yes	Yes
C6, C7	2	Ceramic Capacitor, SMD, 200 V	1nF, 200V	10%	SMD0603	Standard	Standard	Yes	Yes
C8	1	Ceramic Capacitor, SMD, 50 V	2.2nF	10%	SMD0603	Standard	Standard	Yes	Yes
C9	1	Ceramic Capacitor, SMD, 50 V	47pF	10%	SMD0603	Standard	Standard	Yes	Yes
C10	1	Ceramic Capacitor, SMD, 50 V	NC	10%	SMD0603	Standard	Standard	Yes	Yes
C11, C12	2	Ceramic Capacitor, SMD, 50 V	1nF	10%	SMD0603	Standard	Standard	Yes	Yes
C13	1	Ceramic Capacitor, SMD, 50 V	100pF	10%	SMD0603	Standard	Standard	Yes	Yes
C14, C18	2	Ceramic Capacitor, SMD, 50 V	100nF	10%	SMD0603	Standard	Standard	Yes	Yes
C15	1	Electrolytic capacitor, 35 V	100uF	20%	through-hole	Standard	Standard	Yes	Yes
C16, C17	2	Electrolytic capacitor, 35 V	680uF, 35V	-	through-hole	PANASONIC	EEUFM1V681	No	Yes
C19	1	Ceramic Capacitor, SMD, 50 V	1uF	10%	SMD0805	Standard	Standard	Yes	Yes
C20	1	Ceramic Capacitor, SMD, 50 V	47nF	10%	SMD0603	Standard	Standard	Yes	Yes
C21	1	Ceramic capacitor, SMD, 50 V	10nF	10%	SMD0603	Standard	Standard	Yes	Yes
C22	1	Ceramic capacitor, SMD, 50 V	33nF	10%	SMD0603	Standard	Standard	Yes	Yes
C23	1	Ceramic capacitor, SMD, 50 V	NC	10%	SMD0603	Standard	Standard	Yes	Yes
D1, D2	2	Diode, 1A, 1000V	CGRM4007, 1A, 1000V, SMA	-	SOD-123	Standard	CGRM4007	No	Yes
D3, D4, D8	3	Diode, SMD, 100 V	MMSD4148, 100V	-	SOD-123	Standard	MMSD4148	Yes	Yes
D5	1	20 V Zener Diode	zener, 20V	-	SOD-123	Standard	Standard	Yes	Yes
D6	1	Fast Recovery Diode, 0.5 A, 600 V	RSFJL, 1 A, 600 V	-	SMA	TAIWAN SEMICONDU	RSFJL	No	Yes
D7, D9	2	Diode, 200mA, 250V	BAS21, 200mA, 250V	-	SOD-323	Standard	BAS21AHT1G	Yes	Yes
IC1	1	Diode Bridge, 2 A, 600 V	Z4GP206L	-	ABS(Z4)	Comchip	Z4GP206L-HF	No	Yes
IC2	1	QR controller	-	-	SOIC-13, Narrow	ON Semiconductor	NCP1339GDR2G	No	Yes
IC3	1	Optocoupler ACPL-217, SMD	ACPL-217- 56DE	-	SMD-4	Avago	ACPL-217-56DE	No	Yes
IC4	1	Shunt Regulator, 2.5 - 36 V, 1 - 100 mA	NCP431	-	SOT-23	ON Semiconductor	NCP431AVSNT1G	No	Yes
IC5	1	SR controller	NCP4305	-	SOIC-8	ON Semiconductor	NCP4305	No	Yes
F1	1	Fuse, 2A, 250V	2A, 250V	-	through-hole	MULTICOMP	MST 2A 250V	Yes	Yes
J1	1	-	NC	-	through-hole	-	-	-	Yes
J2	1	-	NC	-	through-hole	-	-	-	Yes
L1	1	Common Mode Choke, 2*10 mH, 2 A	10mH, 2A	-	through-hole	MULTICOMP	MCT18X10X10C-103N	No	Yes
M1	1	MOSFET, 650 V	SPP07N65, 650V	-	TO-220	INFINEON	SPP07N65C3	No	Yes
M2	1	MOSFET, 150 V, 12.4 mΩ	FDMS86255E, T150, 150V	-	Power 56, SO-8	Fairchild	FDMS86255ET150	No	Yes
Q1	1	PNP transistor, SMD	BC857	-	SOT23	ON Semiconductor	BC857ALT1G	Yes	Yes
R1	1	Ceramic Resistor, SMD, 0.33W	100kΩ, 0.33 W	-	SMD1206	Standard	Standard	Yes	Yes
R2	2	Ceramic Resistor, SMD, 0.10W, 200 V	NC	5%	SMD0805	Standard	Standard	Yes	Yes
R3	1	Ceramic Resistor, SMD, 0.25W	47Ω, 0.25 W	-	SMD1206	Standard	Standard	Yes	Yes
R4	1	Ceramic Resistor, SMD, 0.10W, 50 V	5.6MΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R5, R6	2	Ceramic Resistor, SMD, 0.10W, 50 V	4.7MΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R7	1	Ceramic Resistor, SMD, 0.10W, 50 V	10MΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R8, R9	2	Ceramic Resistor, SMD, 0.10W, 50 V	2.7kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R10, R14, R26	3	Ceramic Resistor, SMD, 0.10W, 50 V	1kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R11	1	Ceramic Resistor, SMD, 0.10W, 50 V	150kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R12, R19	2	Ceramic Resistor, SMD, 0.10W, 50 V	22kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R13	1	NTC, 100 kΩ at 25°C, Beta = 4190	100k @ 25°C	0.05%	through-hole	VISHAY	NTCLE100E3104JB0	No	Yes
R15	1	Ceramic Resistor, SMD, 0.10W, 50 V	10Ω	5%	SMD0603	Standard	Standard	Yes	Yes
R16	1	Ceramic Resistor, SMD, 0.10W, 50 V	47kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R17	1	Ceramic Resistor, SMD, 0.25W, 1%, 50 V	0.33Ω, 0.25 W	1%	SMD0805	Standard	Standard	Yes	Yes
R20	1	Ceramic Resistor, SMD, 0.10W, 50 V	470Ω	5%	SMD0603	Standard	Standard	Yes	Yes
R21	1	Ceramic Resistor, SMD, 0.10W, 50 V	5.1kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R22, R23	2	Ceramic Resistor, SMD, 0.10W, 50 V	39kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R24	1	Ceramic Resistor, SMD, 0.10W, 50 V	6.8kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R25, R27	2	Ceramic Resistor, SMD, 0.10W, 50 V	10kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R28	1	Ceramic Resistor, SMD, 0.10W, 50 V	36kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
R29	1	Ceramic Resistor, SMD, 0.10W, 50 V	110kΩ	5%	SMD0603	Standard	Standard	Yes	Yes
T1	1	QR Transformer	-	-	through-hole	WURTH	750315282r04	No	Yes