



Bill of Materials for the NCP1239B65WGEVB Evaluation Board

Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
C1	1	Y1 capacitor	2.2nF, 250 V	20%	through-hole	CERAMITE	440LD22	Yes	Yes
C3	1	X2 capacitor	220nF, 305V	20%	through-hole	EPCOS	B32922C3224M289	No	Yes
C4	1	Electrolytic capacitor	100uF, 400V	20%	through-hole	RUBYCON	400TXW100MEFC18X30	No	Yes
C5	1	Film Capacitor	10nF, 200V		through-hole	Standard	Standard	Yes	Yes
C6, C7, C18	3	Ceramic capacitor, SMD	1nF, 50V	10%	SMD0805	Standard	Standard	Yes	Yes
C8	1	Ceramic capacitor, SMD	220pF, 50V	10%	SMD0805	Standard	Standard	Yes	Yes
C9	1	Ceramic Capacitor, SMD	100nF, 50V	10%	SMD0805	Standard	Standard	Yes	Yes
C10	1	Electrolytic capacitor	47uF, 35 V	20%	through-hole	Standard	Standard	Yes	Yes
C11	1	Ceramic Capacitor, Axial	100pF, 1000V	10%	through-hole	MURATA	DEBB33A101KC1B	Yes	Yes
C12	1	Ceramic capacitor, SMD	1nF, 200V	10%	SMD0805	Standard	Standard	Yes	Yes
C13, C14	2	Electrolytic capacitor	680uF, 35V	20%	through-hole	RUBYCON	35ZL680M12.5X20	No	Yes
C15	1	Electrolytic capacitor	220uF, 35V		through-hole	Standard	Standard	Yes	Yes
C16	1	Ceramic capacitor, SMD,	47nF, 50V	10%	SMD0805	Standard	Standard	Yes	Yes
D1, D2	2	Diode, Axial	1A, 1000V, SMA, MRA4007		SMA	ON Semiconductor	MRA4007T3G	No	Yes
D3, D4	2	Fast Recovery Diode, Axial	1 A, 600 V, DO-35, D1N4937		DO-41	ON Semiconductor	1N4937G	No	Yes
D5	1	18 V Zener Diode, Axial	zener, 18 V, DO-35		DO-35	Standard	Standard	Yes	Yes
D6	1	Diode, SMD	D1N4148, 100v		SOD-123	Standard	MMSD4148	Yes	Yes
D7	1	Schottky Diode, TO-220, 20 A, 150 V	20 A, 200 V, TO-220, MBR20H200		TO-220	ON Semiconductor	MBR20200CTG	No	Yes
D8	1	Diode, Axial	200mA, 250V, DO-35, BAV21		DO-35	Standard	Standard	Yes	Yes
D9	1	LED rouge			through-hole	Standard	Standard	Yes	Yes
HS1, HS2	2	Heatsink, 13°C/W, For M1 & D7		13°C/W	through-hole	AAVID THERMALLOY	SW25-2	No	Yes
HSC1, HSC2	2	Heatsink clip for TO-220, For M1 & D7				AAVID THERMALLOY	5901	No	Yes
IC1	1	Diode Bridge, 4 A, 800 V	KBU4K		through-hole	MULTICOMP	KBU4K	No	Yes
IC2	1	QR controller	NCP1239B65		SOIC-7 Narrow	ON Semiconductor	NCP1239B65	No	Yes
IC3	1	Optocoupler SFH6156-2, SMD	SFH6156-2		SMD-4	VISHAY	SFH6156-2T	No	Yes
IC4	1	Shunt Regulator, 2.5 - 36 V, 1 - 100 mA	NCP431		SOT-23	ON Semiconductor	NCP431AVSNT1G	Yes	Yes
F1	1	Fuse, 2A, 250V	2A, 250V		through-hole	SCHURTER	.0034.6618	No	Yes
J1	1	Input Connector, 2.5 A, 260 V	2.5 A, 260 V		through-hole	MULTICOMP	JR-201S(PCB)	Yes	Yes
J2	1	Output Connector	10A, 300V		through-hole	WEIDMULLER	PM5.08/2/90	No	Yes
Jumper	1				through-hole			Yes	Yes
L1	1	Common Mode Choke, 2*10 mH, 1.2 A	10mH, 1.2 A		through-hole	Schaffner	RN114-1.2/02	No	Yes
L2	1	Radial Coll., 1 uH, 7.5 A, 20%	1uH, 7.5 A	20%	through-hole	WURTH	744772010	No	Yes
M1	1	MOSFET, 650 V, 8 A	8 A, 650 V, IPA65R190		TO-220	Infineon	IPA65R190C7	No	Yes
Q1	1	PNP transistor, SMD	BC857		SOT23	ON Semiconductor	BC857ALT1G	Yes	Yes
R1, R2	2	Resistor, Axial	47kΩ, 3 W	5%	through-hole	Standard	Standard	Yes	Yes
R3	1	Resistor, Axial, 1 W, 1%	22Ω	1%	through-hole	Standard	Standard	Yes	Yes
R5, R6	2	Ceramic Resistor, SMD, 0.25W, 50 V	2.7kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R7	1	NTC, 100 kΩ at 25°C, Beta = 4190	100k @ 25°C	0.05%	through-hole	VISHAY	NTCLE100E3104JB0	No	Yes
R8	1	Ceramic Resistor, SMD, 0.25W, 200 V	1.6kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R9	1	Ceramic Resistor, SMD, 0.25W, 200 V	10Ω	5%	SMD0805	Standard	Standard	Yes	Yes
R10, R24	2	Ceramic Resistor, SMD, 0.25W, 200 V	0Ω	5%	SMD1206	Standard	Standard	Yes	Yes
R11	1	Ceramic Resistor, SMD, 0.25W, 200 V	47kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R12, R13, R14	3	Ceramic Resistor, SMD, 1W, 1%, 50 V	1Ω, 1 W	1%	SMD2512	Standard	Standard	Yes	Yes
R15	1	Ceramic Resistor, SMD, 1W, 200 V	22Ω	5%	SMD2512	Standard	Standard	Yes	Yes
R16	1	Ceramic Resistor, SMD, 0.25W, 200 V	1kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R18	1	Ceramic Resistor, SMD, 0.25W, 50 V	27kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R19	1	Ceramic Resistor, SMD, 0.25W, 50 V	39kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R20, R25	2	Ceramic Resistor, SMD, 0.25W, 50 V	10kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
R21, R22, R23	3	Ceramic Resistor, SMD, 0.25W, 200 V	1.5MΩ	5%	SMD1206	Standard	Standard	Yes	Yes
R26	1	Ceramic Resistor, SMD, 0.25W, 50 V	33kΩ	5%	SMD0805	Standard	Standard	Yes	Yes
S1, S3	2	Strap	400		through-hole	Standard	Standard	Yes	Yes
S2, S4	2	Strap	700		through-hole	Standard	Standard	Yes	Yes
SP1	1	jumper400h			through-hole	HARWIN	D3082F05	Yes	Yes
T1	1	QR Transformer, PQ26/25			through-hole	WURTH	750314896	No	Yes
TP2, TP3, TP4, TP5, TP6, TP7, TP8, TP9, TP10	9	Test point			through-hole	Keystone	5010	Yes	Yes
X1, X2, X3, X4	4	Support à riveter			through-hole	RICHCO	SFCBS-M4-12M-01	Yes	Yes