

Bill of Materials for the NCP5425DO Evaluation Board

ON Semiconductor



Designator	Quantity	Description	Value	Tolerance	Footprint	Manufacturer	Manufacturer Part Number	Substitution Allowed	Lead Free
D1,D2	2	Dual Diode	70 V	NA	SOT-23	ON Semiconductor	BAV99LT1	NO	NO
D4*	1	Zener Diode	225 mW, 10 V +/-5%	NA	SOT-23	ON Semiconductor	MMBZ5240BLT1	NO	NO
U1	1	Dual Synchronous PWM	NA	NA	TSSOP-20	ON Semiconductor	NCP5425	NO	NO
Q1,Q3	2	N Ch MOSFET	62 A, 25 V	NA	D-Pak	ON Semiconductor	NTD60N02R	NO	NO
Q2,Q4	2	N Ch MOSFET	110 A, 24 V	NA	D-Pak	ON Semiconductor	NTD110N02R	NO	NO
Q5	1	N Ch MOSFET	300mA, 20 V	NA	SOT-323	ON Semiconductor	MMBF2201NT1	NO	NO
C30*,31*	2	Ceramic Capacitor	0.01 uF,25 V	10%	0805	Vishay	VJ0805Y103KXXAT00	YES	NO
C13-14,C23	3	Ceramic Capacitor	0.1uF,25 V	10%	0805	Vishay	VJ0805Y104KXXAT00	YES	NO
C16	1	Ceramic Capacitor	0.1uF,25 V	10%	1206	Vishay	VJ1206Y104KXXAT00	YES	NO
C8	1	Ceramic Capacitor	0.22uF,25 V	10%	0805	Vishay	VJ0805Y224KXXAT00	YES	NO
C10,C11	2	Ceramic Capacitor	1.0uF,16 V	10%	0805	TDK	C2012X5RIC105K	YES	NO
C19,C22,C26,C28	4	Ceramic Capacitor	10uF,16V	20%	1206	TDK	C3225X7R1C106MT	YES	NO
C27*,C32*	2	Ceramic Capacitor	10uF,16V	20%	1206	TDK	C3225X7R1C106MT	YES	NO
C3-4, C20-21	4	Through Hole Capacitor	1800 uF,6.3 V	20%	TH-F	Rubycon	6.3MBZ1800M (10X16)	YES	NO
C1-2,C6,C17	4	Through Hole Capacitor	1500 uF,16 V	20%	TH-F	Rubycon	16MBZ1500M (10X20)	YES	NO
R11-23	3	Resistor	0 Ω , 1/8 W	NA	0805	Vishay	CRCW080500R0	YES	NO
R26*,R27*	2	Resistor	10 Ω , 1/8 W	1%	0805	Vishay	CRCW080510R0F	YES	NO
R15	1	Resistor	169 Ω , 1/8 W	1%	0805	Vishay	CRCW0805169RF	YES	NO
R3	1	Resistor	205 Ω , 1/8 W	1%	0805	Vishay	CRCW0805205RF	YES	NO
R8,R17,R19,R20	4	Resistor	7.5 k Ω , 1/8 W	1%	0805	Vishay	CRCW08057K50F	YES	NO
R1,4,16	3	Resistor	10 k Ω , 1/8 W	1%	0805	Vishay	CRCW080510K0F	YES	NO
R25	1	Resistor	15.0 k Ω , 1/8 W	1%	0805	Vishay	CRCW080515K0F	YES	NO
R5	1	Resistor	17.4 k Ω , 1/8 W	1%	0805	Vishay	CRCW080517K4F	YES	NO
R24	1	Resistor	18.7 k Ω , 1/8 W	1%	0805	Vishay	CRCW080518K7F	YES	NO
R6	1	Resistor	20.0 k Ω , 1/8 W	1%	0805	Vishay	CRCW080520K0F	YES	NO
R12	1	Resistor	30.1 k Ω , 1/8 W	1%	0805	Vishay	CRCW080530K1F	YES	NO
L1,L2	2	Inductor	1.5uH / 4m	20%	Inductor	Coilcraft	DO5010H-152ML	YES	NO
(1.5V Sense)	1	Test Pin	NA	NA	NA	Mill-Max	ED5048-ND	YES	NO
(1.8V Sense)	1	Test Pin	NA	NA	NA	Mill-Max	ED5048-ND	YES	NO
(Vcc Input)	1	Test Pin	NA	NA	NA	Mill-Max	ED5048-ND	YES	NO
(SWN1 & 2)	1	Test Pin	NA	NA	NA	Mill-Max	ED5048-ND	YES	NO
5V/12V Input & Returns	6	Solder Terminal	NA	NA	NA	Cambion	160-1026-02-05-00	YES	NO
JP1	1	Header	NA	NA	NA	Molex/Waldom	22-28-4020	YES	NO
	1	Shunt	NA	NA	NA	3M	929950-00	YES	NO
	4	Self adhesive bumpers	NA	NA	NA	3M / Digi-Key	SJ5003-0-ND	YES	NO

*Not Used