Variant: 001
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MD106 REV A Bill of Materials

Item #	Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
1	!PCB1	1		MD106	Any	Printed Circuit Board	
2	C1	1	1µF	CGA3E1X7R1C105M080AC	TDK	Cap Ceramic 1uF 16V X7R 20% Pad SMD 0603 +125°C Automotive T/R	0603
3	C2	1	10uF	GRM32ER71J106KA12L	MuRata	CAP, CERM, 10 uF, 63 V, +/- 10%, X7R, 1210	1210
4	C3	1	0.1uF	0603BB104KW101	Passive Plus	CAP, CERM, 0.1 µF, 100 V,+/- 10%, X7R, 0603	0603
5	C4	1	0.1uF	GRM188R70J104KA01D	MuRata	CAP, CERM, 0.1 uF, 6.3 V, +/- 10%, X7R, 0603	0603
6	C5, C9	2	1uF	CL10B105KQ8NNNC	Samsung Electro-Mechanics	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X7R, 0603	0603
7	C6	1	1µF	GMC04X7R105K10NT	Cal-Chip Electronics	1µF ±10% 10V Ceramic Capacitor X7R 0402 (1005 Metric)	0402
8	C7	1	0.1uF	GRM155R71A104KA01D	MuRata	CAP, CERM, 0.1 uF, 10 V, +/- 10%, X7R, 0402	0402
9	C8	1	100nF	CL10B104KC8NNNC	Samsung	Cap Ceramic 100nF 100V X7R ±10% Pad SMD 0603 +125°C T/R	0603
10	C11, C12, C13	3	22pF	CGA3E2C0G1H220J080AA	TDK	CAP, CERM, 22 pF, 50 V, +/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
11	C16, C17, C18, C19	4	0.1uF	06035C104JAT2A	AVX	CAP, CERM, 0.1 µF, 50 V,+/- 5%, X7R, 0603	0603
12	C20	1	390µF	UCM2A391MNS1MS	Nichicon	390 µF 100 V Aluminum Electrolytic Capacitors Radial, Can - SMD 5000 Hrs @ 105°C	SMT_CAP_17MM1_17MM1
13	C21	1	1uF	C3216X7R2A105K160AA	TDK	CAP, CERM, 1 uF, 100 V, +/- 10%, X7R, 1206	1206
14	C22, C27	2	0.1uF	CGA3E3X7S2A104K080AB	TDK	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7S, AEC-Q200 Grade 1, 0603	0603
15	C23	1	0.01uF	CGA3E2X7R2A103K080AA	TDK	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
16	C24	1	1000pF	CGA3E2X7R2A102K080AA	TDK	CAP, CERM, 1000 pF, 100 V, +/- 10%, X7R, AEC-Q200 Grade 1, 0603	0603
17	C25	1	10nF	CGA3E2X7R1H103K080AE	TDK	Cap Ceramic 10nF 50V X7R 10% Pad SMD 0603 +125°C Automotive T/R	0603
18	C28, C29, C30	3	1000pF	8.85012E+11	Wurth Elektronik	CAP, CERM, 1000 pF, 16 V, +/- 10%, X7R, 0603	0603
19	D2, D4	2	Green	LTST-C170KGKT	Lite-On	LED, Green, SMD	LED_0805
20	D3	1	Red	LTST-C170KRKT	Lite-On	LED, Red, SMD	Red 0805 LED
21	D5	1	Orange	LTST-C170KFKT	Lite-On	LED, Orange, SMD	LED_0805
22	D6	1	3.3V	SZMM3Z3V3ST1G	ON Semiconductor	Diode, Zener, 3.3 V, 300 mW, AEC-Q101, SOD-323	SOD-323
23	D7	1	90V	CDSU101A	Comchip Technology	Diode, Switching, 90 V, 0.1 A, SOD-523F	SOD-523F
24	J3, J5, J11	3		68001-403HLF	FCI	Header, 2.54mm, 3x1, Tin, TH	Header, 2.54mm, 3x1, TH
25	J4	1		M22-2510505	Harwin	Header, 2mm, 5x1, Gold, TH	Header, 2mm, 5x1, TH
26	J6, J7	2		SSQ-110-03-G-D	Samtec	Receptacle, 2.54mm, 10x2, Gold, TH	Receptacle, 2.54mm, 10x2, TH
27	J9	1		1714984	Phoenix Contact	Terminal Block, 3x1, 9.52MM, TH	Terminal Block, 3x1, 9.52mm,TH
28	L1	1	1uH	HCMA1104-1R0-R	Eaton	1 µH Shielded Drum Core, Wirewound Inductor 18 A 3.3mOhm Max Nonstandard	SMD2
29	LBL1	1		THT-14-423-10	Brady	Thermal Transfer Printable Labels, 0.650" W x 0.200" H - 10,000 per roll	PCB Label 0.650 x 0.200 inch
30	Q1	1	100 V	ZXTN25100BFHTA	Diodes Inc.	Transistor, NPN, 100 V, 3 A, AEC-Q101, SOT-23	SOT-23
31	Q2	1	100V	CSD19537Q3	Texas Instruments	MOSFET, N-CH, 100 V, 50 A, DQG0008A (VSON-CLIP-8)	DQG0008A
32	R2, R17, R18, R20, R21, R24, R26, R27, R28, R29, R30, R59	12	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
33	R4, R7	2	1.0k	RCA06031K00JNEA	Vishay-Dale	RES, 1.0 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
34	R6, R14, R16	3	5.1k	CRCW06035K10JNEA	Vishay-Dale	RES, 5.1 k, 5%, 0.1 W, 0603	0603
35	R10, R11, R12	3	330	RG1608P-331-B-T5	Susumu Co Ltd	RES, 330, 0.1%, 0.1 W, 0603	0603
36	R25, R48, R49, R50, R53	5	10.0k	TNPW060310K0BEEA	Vishay-Dale	RES, 10.0 k, 0.1%, 0.1 W, AEC-Q200 Grade 1, 0603	0603
37	R31, R32, R34	3	590	RC0603FR-07590RL	Yageo	RES, 590, 1%, 0.1 W, 0603	0603
38	R33	1	4.70k	RT0603BRD074K7L	Yageo America	RES, 4.70 k, 0.1%, 0.1 W, 0603	0603
39	R37, R38	2	10k	CRCW060310K0JNEA	Vishay-Dale	RES, 10 k, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
40	R39	1	0	RCA12060000ZSEA	Vishay-Dale	RES, 0, 5%, 0.25 W, AEC-Q200 Grade 0, 1206	1206
41	R40, R41, R42, R43	4	75.0k	CRCW060375K0FKEA	Vishay-Dale	RES, 75.0 k, 1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
42	R44, R45, R46, R47	4	6.04k	RT0603DRE076K04L	Yageo America	RES, 6.04 k, 0.5%, 0.1 W, 0603	0603
43	SH-J2, SH-J3	2	1x2	SNT-100-BK-G	Samtec	Shunt, 100mil, Gold plated, Black	Shunt
44	TP1, TP2, TP3, TP5, TP6, TP9, TP10, TP11, TP12, TP16, TP20	11		5000	Keystone	Test Point, Miniature, Red, TH	Red Miniature Testpoint
45	TP13	1		5005	Keystone	Test Point, Compact, Red, TH	Red Compact Testpoint
46	TP14, TP15, TP17, TP18	4		1502-2	Keystone	Terminal, Turret, TH, Double	Keystone1502-2
47	TP19	1		5001	Keystone	Test Point, Miniature, Black, TH	Black Miniature Testpoint
48	U1	1		REF3130AQDBZRQ1	Texas Instruments	Automotive 20 ppm / degC Max, 100 uA, SOT23-3 Series Voltage Reference, DBZ0003A (SOT-23-3)	DBZ0003A
49	U2	1		DRV8374HRBKR	Texas Instruments	Three-Phase Integrated FET Motor Driver	VQFN29
50	U4	1		TPD4S009DCKR	Texas Instruments	4-Channel ESD Solution for High-Speed Differential Interface, DCK0006A (SOT-SC70-6)	DCK0006A
51	R19, R35, R36	0	0	ERJ-3GEY0R00V	Panasonic	RES, 0, 5%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
52	R51, R52, R54	0	100k	ERA-3AEB104V	Panasonic	RES, 100 k, 0.1%, 0.1 W, AEC-Q200 Grade 0, 0603	0603
53	R60, R61, R62, R65, R66, R68	0	47.0k	MCT0603MD4702DP500	Vishay/Beyschlag	RES, 47.0 k, 0.5%, 0.15 W, AEC-Q200 Grade 0, 0603	0603