

TIDA-01557 REV E1 Bill of Materials



Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
IPC B1	1		TIDA-01557	Any	Printed Circuit Board	
BD1	1	600V	GBU15L05	Taiwan Semiconductor Corpor	BRIDGE RECT 1PHASE 600V 15A GBU	GBU
C2, C13	2	0.01uF	CGA6J4C0G2J103J125AA	TDK Corporation	CAP, CERM, 0.01 µF, 630 V, 1210	1210
C3, C4, C10, C11	4	10uF	12103C106KAT2A	AVX	CAP, CERM, 10 µF, 25 V,+/- 10%, X7R, 1210	1210
C5, C9	2	1000uF	EEU-FR1V102B	Panasonic	CAP, AL, 1000 µF, 35 V, +/- 20%, 0.018 ohm, TH	D12.5xL20mm
C6, C7	2	150pF	GRM31A5C2J151JW01D	MuRata	CAP, CERM, 150 pF, 630 V,+/- 5%, C0G/NP0, 1206	1206
C8	1	220uF	EKMG160ELL221MF11D	Chemi-Con	CAP, AL, 220 µF, 16 V, +/- 20%, TH	D6.3xL11mm
C14	1	120uF	35ZLQ120MEFC6.3X11	Rubycon	CAP, AL, 120 µF, 35 V, +/- 20%, TH	D6.3xL11mm
C15	1	0.015uF	GRM2195C1H153JA01D	MuRata	CAP, CERM, 0.015 µF, 50 V,+/- 5%, C0G/NP0, 0805	0805
C16, C17, C25, C39	4	1uF	C0805C105K3RACTU	Kemet	CAP, CERM, 1 µF, 25 V, +/- 10%, X7R, 0805	0805
C18, C26	2	2.2uF	C1608X6S1C225K080AC	TDK	CAP, CERM, 2.2 µF, 16 V, +/- 10%, X6S, 0603	0603
C19	1	330pF	C0603C331J5GACTU	Kemet	CAP, CERM, 330 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C20	1	2.2uF	GRM188R6YA225KA12D	MuRata	CAP, CERM, 2.2 µF, 35 V,+/- 10%, X5R, 0603	0603
C21	1	10pF	06035A100JAT2A	AVX	CAP, CERM, 10 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C22, C28	2	0.047uF	GRM188R71C473KA01D	MuRata	CAP, CERM, 0.047 µF, 16 V,+/- 10%, X7R, 0603	0603
C23	1	220pF	GRM188R71H221KA01D	MuRata	CAP, CERM, 220 pF, 50 V,+/- 10%, X7R, 0603	0603
C27	1	4.7uF	GRM21BR61E475MA12L	MuRata	CAP, CERM, 4.7 µF, 25 V,+/- 20%, X5R, 0805	0805
C29	1	0.15uF	0805YC154JAT2A	AVX Corporation	CAP, CERM, 0.15 µF, 16 V,+/- 5%, X7R, 0805	0805
C30, C42	2	51pF	C0603C510J5GACTU	KEMET	CAP, CERM, 51 pF, 50 V,+/- 5%, C0G/NP0, AEC-Q200 Grade 1, 0603	0603
C31	1	2200pF	DE1E3KX222MN4AN01F	MuRata	CAP, CERM, 2200 pF, X1 250 VAC/Y1 300 VAC, +/- 20%, E, Cap, 7x12x9 mm	Cap, 7x12x9 mm
C32	1	2200pF	DE2E3KY222MN2AM01F	MuRata	CAP, CERM, 2200 pF, X1 250 VAC/Y2 300 VAC, +/- 20%, E, Radial D8x5mm	Radial D8x5mm
C33	1	0.22uF	890324023028	Würth Elektronik	CAP, Film, 0.22 µF, X2 275 VAC, +/- 10%, TH	13x7mm
C34	1	0.47uF	890324024005	Würth Elektronik	CAP, Film, 0.47 µF, X2 275 VAC, +/- 10%, TH	15x10mm
C35, C40	2	0.47uF	08053D474KAT2A	AVX	CAP, CERM, 0.47 µF, 25 V,+/- 10%, X5R, 0805	0805
C36	1	2200pF	DE2E3KY222MA2BM01	MuRata	CAP, CERM, 2200 pF, X1 250 VAC/Y2 300 VAC, +/- 20%, E, Radial D8x5mm	Radial D8x5mm
C37	1	150uF	ESMQ451VSN151MQ25S	Chemi-Con	CAP, AL, 150 µF, 450 V, +/- 20%, TH	25.4x25mm
C38	1	0.68uF	B32672P5684K000	EPCOS (TDK)	CAP, Film, 0.68 µF, 520 V, +/- 10%, TH	18x9mm
C41	1	1uF	GRM216R61E105KA12D	MuRata	CAP, CERM, 1 µF, 25 V,+/- 10%, X5R, 0805	0805
C43	1	4700pF	GRM188R71E472KA01D	MuRata	CAP, CERM, 4700 pF, 25 V,+/- 10%, X7R, 0603	0603
C44	1	10uF	12063C106KAT2A	AVX Corporation	CAP, CERM, 10 µF, 25 V,+/- 10%, X7R, 1206	1206
C45, C46	2	4700pF	CGA5F4C0G2J472J085AA	TDK Corporation	CAP, CERM, 4700PF 630V, C0G/NP0, 1206	1206
C47	1	470pF	GRM1885C1H471JA01D	MuRata	CAP, CERM, 470 pF, 50 V,+/- 5%, C0G/NP0, 0603	0603
C48	1	10pF	GCM31A7U2J100JX01D	Murata Electronics North Ame	CAP CER 10PF 630V U2J 1206	1206
C49	1	3900pF	06031C392JAT2A	AVX Corporation	CAP, CERM, 3900 pF, 100 V,+/- 10%, X7R, 0603	0603
C50	1	2.2uF	GRM21BR71E225KA73L	MuRata	CAP, CERM, 2.2 µF, 25 V,+/- 10%, X7R, 0805	0805
D1, D3, D13	3	100V	1N4148W-7-F	Diodes Inc.	Diode, Ultrafast, 100 V, 0.15 A, SOD-123	SOD-123
D2	1	100V	PMEG10020ELRX	Nexperia	Diode, Schottky, 100 V, 2 A, AEC-Q101, SOD-123W	SOD-123W
D4	1	600V	ES1JAF	Fairchild Semiconductor	Diode, Ultrafast, 600 V, 1 A, AEC-Q101, SMAF	SMAF
D5	1	6.2V	MMSZ5234B-7-F	Diodes Inc.	Diode, Zener, 6.2 V, 500 mW, SOD-123	SOD-123
D6	1	600V	1N5406RLG	On Semiconductor	Diode, Switching-Bridge, 600 V, 3 A, TH	DO-201AD
D7	1	600V	MUR460RLG	ON Semiconductor	DIODE GEN PURP 600V 4A DO201AD	DO-201AD
D8, D9	2	1000V	RS1MB-13-F	Diodes Inc.	Diode, P-N, 1000 V, 1 A, SMB	SMB
D10	1	30V	BAT48JFILM	STMicroelectronics	Diode, Schottky, 30 V, 0.35 A, SOD-323	SOD-323
D11	1	100V	1N4148W RHG	Taiwan Semiconductor Corpor	Diode, Switching, 100 V, 0.15 A, SOD-123FL	SOD-123FL
D12	1	22V	MMSZ5251B-7-F	Diodes Inc.	Diode, Zener, 22 V, 500 mW, SOD-123	SOD-123
D14	1	5.6V	BZT52C5V6T-7	Diodes Inc.	Diode, Zener, 5.6 V, 300 mW, SOD-523	SOD-523

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
F1	1		40015000440	Littelfuse	Fuse, 5 A, 250VAC/VDC, TH	8x8.5x4mm
H1, H2, H3, H4	4		SJ-5303 (CLEAR)	3M	Bumpon, Hemisphere, 0.44 X 0.20, Clear	Transparent Bumpon
H5, H6, H7, H8	4		3200	Keystone	Washer, Flat, #4 Nylon	
HS1, HS2, HS3	3		V6560W	Assman WSW	HEATSINK, ALUM, ANOD, for TO-220	29x12mm
HS4, HS5	2	Custom	ATS-PCBT1093	Advanced Thermal Solutions I	HEATSINK, TH	29x12mm
J2	1		TSW-102-07-G-S	Samtec	Header, 100mil, 2x1, Gold, TH	2x1 Header
JP1, JP2	2		923345-04-C	3M	Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200	Jumper Wire, 400 mil Spacing, Yellow, Pkg of 200
JP3	1		923345-03-C	3M	Jumper Wire, 300mil spacing, Orange, pkg of 200	300 mil Jumper Wire
JP4, JP8	2		923345-02-C	3M	Jumper Wire, 200mil spacing, Red, pkg of 200	200 mil Jumper Wire
JP5, JP6	2		923345-06-C	3M	Jumper Wire, 600mil spacing, Blue, pkg of 150, TH	600 mil Jumper Wire
JP7	1		923345-05-C	3M	Jumper Wire, 500mil spacing, Green, pkg of 200	500 mil Jumper Wire
L1, L4	2	150µH	2114-V-RC	Bourns	FIXED IND 150UH 3.4A 62 MOHM TH	19x46x46mm
L2	1	230nH	PA2607.231AHL	Pulse Electronics Power	FIXED IND 230NH 41A 0.29 MOHM	11 x 9.2 x 9mm
L3	1	200uH	750343802	Würth Elektronik	Inductor, Toroid, 200uH, 4.5A, TH	Inductor, 16.5x30x31.5
L5	1	5.5mH+/-32%	750343092	Würth Elektronik	Coupled inductor, 5.5mH+/-32%, 2.5 A, 0.040 ohm	
M1, M2, M3, M4	4		43-77-9G	Aavid Thermalloy	THERMALFILM THERMAL PAD TO-220	
NTC1	1	4.70 ohm	B57235S479M	TDK	ICL 4.7 OHM 20% 4.4A 9.5MM	D9.5xT6mm
Q1, Q3	2	650V	SPP20N65C3XKSA1	Infineon Technologies	MOSFET, N-CH, 650 V, 20.7 A, TO-220AB	TO-220AB
Q2, Q4	2	40V	CSD18511Q5A	Texas Instruments	MOSFET, N-CH, 40 V, 100 A, DQJ0008A (VSONP-8)	DQJ0008A
Q5	1	650V	IPP60R190P6	Infineon Technologies	MOSFET, N-CH, 650 V, 20.2 A, TO-220AB	TO-220AB
Q6	1	40 V	MMBT2222A	Fairchild Semiconductor	Transistor, NPN, 40 V, 0.15 A, SOT-23	SOT-23
Q7	1	600V	TK290P60Y,RQ	Toshiba Semiconductor and S	MOSFET N-CH 600V 11.5A DPAK	DPAK
Q8, Q9	2	65 V	BC 846PN H6327	Infineon Technologies	Transistor, NPN/PNP Pair, 65 V, 0.1 A, SOT-363	SOT-363
R2, R8	2	10.0	CRCW080510R0FKEA	Vishay-Dale	RES, 10.0, 1%, 0.125 W, 0805	0805
R3, R10, R17	3	1.00	CRCW08051R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.125 W, 0805	0805
R4, R11	2	5.11k	CRCW06035K11FKEA	Vishay-Dale	RES, 5.11 k, 1%, 0.1 W, 0603	0603
R5, R14	2	22	CRCW251222R0JNEGHP	Vishay-Dale	RES, 22, 5%, 1.5 W, 2512	2512
R6, R15	2	1.00	CRCW06031R00FKEA	Vishay-Dale	RES, 1.00, 1%, 0.1 W, 0603	0603
R7	1	53.6k	ERJ-6ENF5362V	Panasonic	RES, 53.6 k, 1%, 0.125 W, 0805	0805
R12	1	200	CRCW0603200RFKEA	Vishay-Dale	RES, 200, 1%, 0.1 W, 0603	0603
R13, R26, R27, R52	4	10.0k	CRCW060310K0FKEA	Vishay-Dale	RES, 10.0 k, 1%, 0.1 W, 0603	0603
R16	1	2.2	CRCW06032R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.1 W, 0603	0603
R18, R22, R28, R55	4	100k	CRCW0603100KFKEA	Vishay-Dale	RES, 100 k, 1%, 0.1 W, 0603	0603
R19	1	22.1	CRCW060322R1FKEA	Vishay-Dale	RES, 22.1, 1%, 0.1 W, 0603	0603
R20, R23	2	6.04k	CRCW06036K04FKEA	Vishay-Dale	RES, 6.04 k, 1%, 0.1 W, 0603	0603
R21	1	732k	CRCW0805732KFKEA	Vishay-Dale	RES, 732 k, 1%, 0.125 W, 0805	0805
R24	1	147k	CRCW0603147KFKEA	Vishay-Dale	RES, 147 k, 1%, 0.1 W, 0603	0603
R25	1	0	CRCW08050000Z0EA	Vishay-Dale	RES, 0, 5%, 0.125 W, 0805	0805
R29	1	422k	CRCW0805422KFKEA	Vishay-Dale	RES, 422 k, 1%, 0.125 W, 0805	0805
R30	1	16.9k	CRCW060316K9FKEA	Vishay-Dale	RES, 16.9 k, 1%, 0.1 W, 0603	0603
R31	1	2.00k	CRCW06032K00FKEA	Vishay-Dale	RES, 2.00 k, 1%, 0.1 W, 0603	0603
R32, R33, R34, R35, R36, R38	6	3.3Meg	KTR18EZPF3304	Rohm Semiconductor	RES, 3.3 M, 1%, 0.25 W, 1206	1206
R37	1	1.00k	RT0603BRB071KL	Yageo America	RES, 1.00 k, 0.1%, 0.1 W, 0603	0603
R39, R40, R41	3	1.62k	CRCW12061K62FKEA	Vishay-Dale	RES, 1.62 k, 1%, 0.25 W, 1206	1206
R42	1	24.3k	RT0603DRE0724K3L	Yageo America	RES, 24.3 k, 0.5%, 0.1 W, 0603	0603
R43	1	0	CRCW12060000Z0EA	Vishay-Dale	RES, 0, 5%, 0.25 W, 1206	1206
R44, R45	2	0.12	ERJ-8RSJR12V	Panasonic	RES, 0.12, 5%, 0.25 W, 1206	1206
R46	1	453k	CRCW1206453KFKEA	Vishay-Dale	RES, 453 k, 1%, 0.25 W, 1206	1206
R47	1	3.00k	ERA-3YEB302V	Panasonic	RES, 3.00 k, 0.1%, 0.1 W, 0603	0603
R48	1	36.5k	CRCW080536K5FKEA	Vishay-Dale	RES, 36.5 k, 1%, 0.125 W, 0805	0805

Designator	Quantity	Value	PartNumber	Manufacturer	Description	PackageReference
R49	1	121k	CRCW0805121KFKEA	Vishay-Dale	RES, 121 k, 1%, 0.125 W, 0805	0805
R50	1	2.2	CRCW08052R20JNEA	Vishay-Dale	RES, 2.2, 5%, 0.125 W, 0805	0805
R51	1	61.9k	CRCW060361K9FKEA	Vishay-Dale	RES, 61.9 k, 1%, 0.1 W, 0603	0603
R53	1	180k	ERJ-6GEYJ184V	Panasonic	RES, 180 k, 5%, 0.125 W, 0805	0805
RG1	1	10	CRCW080510R0JNEA	Vishay-Dale	RES, 10, 5%, 0.125 W, 0805	0805
RG2	1	1.0	CRCW08051R00JNEA	Vishay-Dale	RES, 1.0, 5%, 0.125 W, 0805	0805
RG3	1	82.0k	RC0603FR-0782KL	Yageo America	RES, 82.0 k, 1%, 0.1 W, 0603	0603
RV1	1	275V	S10K275E2	EPCOS Inc	Varistor 275V RMS 10MM Radial, TH	10mm Radial
T1	1		750343737	Würth Elektronik	Transformer, TH	
U1, U4	2		UCC24612-2DBVR	Texas Instruments	UCC24612-1DBV, DBV0005A (SOT-23-5)	DBV0005A
U2	1		UCC25630DDB	Texas Instruments	Enhanced LLC Resonant Controller with Driver, DDB0014A (SOIC-14)	DDB0014A
U3	1		VO618A	Vishay-Semiconductor	Optocoupler, 5.3 kV, 50-600% CTR, TH	DIP, 4-Leads, Body 6.86x4.83mm, Pitch 2.54mm
U5	1		TLVH431ACDBZT	Texas Instruments	Low-Voltage Adjustable Precision Shunt Regulator, 129 ppm / degC, 80 mA, 0 to 70 degC, 3-pin SOT-23 (DBZ), Green (RoHS & no Sb/Br)	DBZ0003A
U6	1		UCC28056DBV	Texas Instruments	6-Pin Single-Phase Transition-Mode PFC Controller, DBV0006A (SOT-23-6)	DBV0006A
12V,18A, SGND	0		Custom		Test Point, TH	
C1, C12	0	0.01uF	08055C103JAT2A	AVX	CAP, CERM, 0.01 µF, 50 V,+/- 5%, X7R, 0805	0805
C24	0	10pF	06035A100JAT2A	AVX	CAP, CERM, 10 pF, 50 V,+/- 5%, COG/NP0, 0603	0603
FID1, FID2, FID3	0		N/A	N/A	Fiducial mark. There is nothing to buy or mount.	Fiducial
J1	0		350429-1	TE Connectivity	Header(Shrouded), 6.35mm, 3x1, TH	Header(Shrouded), 6.35mm, 3x1, TH
R1, R9	0	100	CRCW0805100RFKEA	Vishay-Dale	RES, 100, 1%, 0.125 W, 0805	0805
R54	0	390k	RC0603FR-07390KL	Yageo America	RES, 390 k, 1%, 0.1 W, 0603	0603

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