

# Bill of Materials

**TI DESIGNS**

TIPD103: Bridge Tied Load V-I Converter Reference Design, 0.5 - 4.5 V Input, +/- 2A Output, 5% Error

Item #	Quantity	Value	Designator	Description	Manufacturer	Part Number	Supplier Part Number 1
1	5	0.1uF	C1, C3, C5, C7, C8	CAP, CERM, 0.1uF, 50V, +/-5%, X7R, 1206	AVX	12065C104JAT2A	478-3797-1-ND
2	4	47uF	C2, C4, C6, C11	CAP, TANT, 47uF, 16V, +/-20%, 0.7 ohm, 7343-31 SMD	Vishay-Sprague	293D476X0016D2TE3	718-1086-1-ND
3	2	1uF	C9, C10	CAP, CERM, 1uF, 25V, +/-10%, X7R, 0603	MuRata	GRM188R71E105KA12D	490-5307-1-ND
4	1	0.47uF	Cc	CAP, CERM, 0.47uF, 100V, +/-10%, X7R, 1206	TDK	C3216X7R2A474K	445-2284-1-ND
5	2	0.01uF	Csn1, Csn2	CAP, CERM, 0.01uF, 50V, +/-5%, X7R, 0603	Kemet	C0603C103J5RACTU	399-1092-1-ND
6	4	0.35V	D1, D2, D3, D4	Diode, Schottky, 15V, 3A, SMC	International Rectifier	30BQ015TRPBF	VS-30BQ015PBFCT-ND
7	4		F1, F2, F3, F4	BUMPON CYLINDRICAL .312X.200 BLK	3M	SJ61A1	SJ5746-0-ND
8	2		GND, Vcc	Standard Banana Jack, Uninsulated, 5.5mm	Keystone	575-4	575-4K-ND
9	1		Load	Conn Term Block, 2POS, 5.08mm PCB	Phoenix Contact	1715721	277-1263-ND
10	1	10.0k	R1	RES, 10.0k ohm, 0.1%, 0.1W, 0603	Susumu Co Ltd	RG1608P-103-B-T5	RG16P10.0KBCT-ND
11	1	249	Rc	RES, 249 ohm, 1%, 0.1W, 0603	Yageo America	RC0603FR-07249RL	311-249HRCT-ND
12	2	5.49k	Rcl1, Rcl2	RES, 5.49k ohm, 1%, 0.1W, 0603	Yageo America	RC0603FR-075K49L	311-5.49KHRCT-ND
13	2	1.00k	RF, RI	RES, 1.00k ohm, 1%, 0.1W, 0603	Yageo America	RC0603FR-071KL	311-1.00KHRCT-ND
14	1	475	Rset	RES, 475 ohm, 1%, 0.1W, 0603	Yageo America	RC0603FR-07475RL	311-475HRCT-ND
15	2	10	Rsn1, Rsn2	RES, 10.0 ohm, 1%, 0.1W, 0603	Vishay-Dale	CRCW060310R0FKEA	541-10.0HCT-ND
16	3	Red	TP1, TP9, TP13	Test Point, TH, Miniature, Red	Keystone	5000	5000K-ND
17	6	Black	TP2, TP3, TP4, TP5, TP6, TP7	Test Point, TH, Miniature, Black	Keystone	5001	5001K-ND
18	2	White	TP10, TP11	Test Point, TH, Miniature, White	Keystone	5002	5002K-ND
19	2		U1, U2	IC OPAMP GP R-R 1.2MHZ 20SOIC	Texas Instruments	OPA569	296-26292-1-ND
20	1		U3	IC VREF SERIES PREC 2.5V 8-SOIC	Texas Instruments	REF5025	296-27641-1-ND
21	1		Vin	Connector, TH, SMA	Emerson Network Power	142-0701-201	J500-ND

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