

Bill of Materials

TI DESIGNS TIDA-00445

Shunt Based 200Apk Current Measurement Reference Design Using Isolation Amplifier

Quantity	Designator	Description	Manufacturer	PartNumber	PackageReference	Fitted
2	C1, C2	CAP, CERM, 1 μ F, 25 V, +/- 10%, X7R, 0603	TDK	C1608X7R1E105K080AB	0603	Fitted
1	C3	CAP, CERM, 0.22 μ F, 25 V, +/- 10%, X7R, 0603	MuRata	GRM188R71E224KA88D	0603	Fitted
10	C4, C6, C7, C8, C9, C10, C11, C12, C15, C16	CAP, CERM, 0.1 μ F, 25 V, +/- 5%, X7R, 0603	Kemet	C0603C104J3RAC	0603	Fitted
1	C5	CAP, CERM, 10 μ F, 35 V, +/- 20%, X5R, 0603	Nichicon	GRM188R6YA106MA73	0603	Fitted
1	C13	CAP, CERM, 10 μ F, 25 V, +/- 20%, X5R, 0603	TDK	C1608X5R1E106M080AC	0603	Fitted
1	C14	CAP, CERM, 10 μ F, 25 V, +/- 10%, X5R, 0805	TDK	C2012X5R1E106K125AB	0805	Fitted
1	C17	CAP, CERM, 0.22 μ F, 25 V, +/- 5%, X7R, 0603	Kemet	C0603C224J3RAC7867	0603	Fitted
2	C18, C19	CAP, CERM, 330 pF, 50 V, +/- 5%, C0G/NP0, 0603	TDK	C1608C0G1H331J	0603	Fitted
2	D1, D5	LED, Green, SMD	OSRAM	LG L29K-G2J1-24-Z	1.7x0.65x0.8mm	Fitted
2	D2, D3	Diode, Schottky, 40 V, 0.5 A, SOD-123	ON Semiconductor	MBR0540T1G	SOD-123	Fitted
1	D4	Diode, Schottky, 20 V, 0.5 A, SOD-123	ON Semiconductor	MBR0520LT1G	SOD-123	Fitted
4	H1, H2, H3, H4	Machine Screw, Round, #4-40 x 1/4, Nylon, Philips panhead	B&F Fastener Supply	NY PMS 440 0025 PH	Screw	Fitted
2	J1, J2	Terminal Block, 100mil, 2x1, 6A, 63V, TH	Phoenix Contact	1725656	6.2x8.5x5.54 mm	Fitted
1	J3	Connector, TH, SMA	Emerson Network Power	142-0701-201	SMA	Fitted
2	R1, R2	RES, 18, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060318R0JNEA	0603	Fitted
1	R3	RES, 0, 5%, 0.063 W, 0402	Vishay-Dale	CRCW04020000Z0ED	0402	Fitted
2	R4, R15	RES, 1.00 k, 1%, 0.1 W, 0603	Panasonic	ERJ-3EKF1001V	0603	Fitted
2	R5, R6	RES, 576, 1%, 0.1 W, 0603	Vishay-Dale	CRCW0603576RFKEA	0603	Fitted
1	R7	RES, 6.34 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW06036K34FKEA	0603	Fitted
1	R8	RES, 5.10 k, 0.1%, 0.1 W, 0603	Susumu Co Ltd	RG1608P-512-B-T5	0603	Fitted
1	R9	RES, 1.27 k, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD071K27L	0603	Fitted
2	R10, R11	RES, 20.0 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060320K0FKEA	0603	Fitted
2	R12, R13	RES, 14.7 k, 1%, 0.1 W, 0603	Vishay-Dale	CRCW060314K7FKEA	0603	Fitted
1	R14	RES, 36, 5%, 0.1 W, 0603	Vishay-Dale	CRCW060336R0JNEA	0603	Fitted
4	R16, R17, R18, R19	RES, 12.0, 0.1%, 0.1 W, 0603	Yageo America	RT0603BRD0712RL	0603	Fitted
1	T1	Transformer, 50 uH, SMT	Würth Elektronik	750342879	9.14x8mm	Fitted
13	TP1, TP2, TP3, TP4,	Test Point, Miniature, Red, TH	Keystone	5000	Red Miniature Testpoint	Fitted
2	U1, U2	Precision Micropower Shunt Voltage Reference, 3-pin SOT-23	Texas Instruments	LM4040BIM3-2.5	MF03A	Fitted
1	U3	Low-Offset, Rail-to-Rail I/O Operational Amplifier	Texas Instruments	OPA2376AID	D0008A	Fitted
1	U4	Fully-Differential Isolation Amplifier, DWV0008A	Texas Instruments	AMC1200BDWV	DWV0008A	Fitted
1	U5	Transformer Driver for Isolated Power Supplies,	Texas Instruments	SN6501DBVR	DBV0005A	Fitted
1	U6	Low-Drift, Low-Power, Dual-Output, VREF and VREF / 2 Voltage References, DDC0005A	Texas Instruments	REF2033AIDDCR	DDC0005A	Fitted
1	U7	20 MHz, Low Noise, RRIO, CMOS Operational	Texas Instruments	OPA376AIDBVR	DBV0005A	Fitted

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