

TDA2050 Stereo Amplifier

*Quantities are for both channels

The tutorial, schematics, and PCB layout are available here on the Circuit Basics blog:

<http://www.circuitbasics.com/tda2050-diy-amplifier-build-guide/>

Amplifier

<u>Item</u>	<u>Value</u>	<u>Type</u>	<u>Brand</u>	<u>Quantity*</u>	<u>Link</u>	<u>Part #</u>
R1, R3, R4	1K ohm	1/4W Metal Film	KOA Speer	6	http://www.mouser.com	MFS1/4DCT52R1001F
R2	21K ohm	1/4W Metal Film	KOA Speer	2	http://www.mouser.com	MF1/4DC2102F
R5	22K ohm	1/4W Metal Film	KOA Speer	2	http://www.mouser.com	MF1/4CCT52R2202F
R6	10 ohm	1W Metal Film	Vishay	2	http://www.mouser.com	PR01000101009JR500
C1	2.2 uF	Polypropylene Film	Panasonic	2	http://www.mouser.com	ECW-FD2W225K
C2	220 pF	Polypropylene Film	Wima	2	http://www.mouser.com	FKP2-220/100/2.5A
C3	47 uF	50V Electrolytic	Panasonic FC	2	http://www.mouser.com	EEU-FC1H470
C4, C5, C6	100 nF	Polypropylene Film	Wima	6	http://www.mouser.com	MKP4-.1/250/10P10
C7, C8	100 uF	50V Electrolytic	Panasonic FC	4	http://www.mouser.com	EEU-FC1H101
C9, C10	1000 uF	50V Electrolytic	Panasonic FC	4	http://www.mouser.com	EEU-FC1H102
TDA2050				2	https://www.aliexpress.com	N/A

Power Supply

<u>Item</u>	<u>Value</u>	<u>Type</u>	<u>Brand</u>	<u>Quantity</u>	<u>Link</u>	<u>Part #</u>
Transformer	18-0-18; 300VA	Toroidal	Vigortronix	1	https://www.radioshack.com	VTX-146-300-218
D1-D8	MUR860	Diode	ON Semiconductor	8	http://www.mouser.com	MURF860G
R1, R2	2.2K ohm	2W Metal Film	TKD Correctohm	2	http://www.hifonics.com	CM2-370
R3, R4	1 ohm	5W Metal Oxide	Mundorf M-Resist	2	http://www.hifonics.com	MR5-070
C1, C2, C3, C4	8200 uF	50V Electrolytic	Nichicon Gold Tune	4	http://www.hifonics.com	NKG-140
C5, C6, C11, C12	100 nF	Polypropylene Aluminum	Mundorf Evo	4	http://www.hifonics.com	EVO-020
C10	1.5 uF	Polypropylene Aluminum	Mundorf Evo	1	http://www.hifonics.com	EVO-130
C13, C14	100 uF	50V Electrolytic	Elna Silmic II	2	http://www.hifonics.com	ELNAS-105
IEC Cable	1.5 meter			1	https://www.aliexpress.com	N/A
IEC Input Plug		Filtered, Fused, Switched		1	https://www.aliexpress.com	N/A
Fuse	3.15A	250V Slow blow	LittleFuse	2	http://www.mouser.com	02133.15MXP

Ground Loop Protection Circuit

<u>Item</u>	<u>Value</u>	<u>Type</u>	<u>Brand</u>	<u>Quantity</u>	<u>Link</u>	<u>Part #</u>
Bridge Rectifier	35A	1000V	GeneSiC	1	http://www.mouser.com	GBPC3510W
Resistor	10 ohm	5W Wire Wound	WelWyn Components	1	http://www.mouser.com	WHSS-10RJTO75
Capacitor	100 nF	250V Ceramic Disc	Vishay	1	http://www.mouser.com	20VLP10-R

Misc. Parts

<u>Item</u>	<u>Value</u>	<u>Type</u>	<u>Brand</u>	<u>Quantity</u>	<u>Link</u>	<u>Part#</u>
Female Spade Connectors	0.25"		Yueton	31	https://www.aliexpress.com/item/32961112211.html	N/A
Male Spade Connectors	0.25"		TE connectivity	31	http://www.mouser.com/ProductDetail/TE-Connectivity/1-508123-0000	63849-1
Heat Sink	7.1"x3.9"x1.8"	Aluminum	Elegant	1	https://www.aliexpress.com/item/32961112211.html	N/A