

Bill of Materials for Amplifier Module Power Supply

6/19/2008

Assembly Notes:

- Bottom side components should be mounted before top side.
- R_{IR1} - R_{IR3} should not be mounted against PCB. An air gap should be between PCB and component.
- R_{BLD1} - R_{BLD4} should not be mounted against PCB. An air gap should be between PCB and component.

Reference	Value	Tolerance	Description	Manufacturer	Part Number
C ₁ , C ₂ , C ₄	0.01μF	10%	400V, metalized polyester film, 7.5mm lead spacing	Panasonic	ECQ-E4103KF
C ₃			Not Used		
C _{S1} , C _{S2} , C _{S7} , C _{S8} , C _{S9} , C _{S10} ,	0.1μF	10%	100V ceramic, X7R type, 200mil lead spacing	AVX Corporation	SR211C104KAR
C _{S11} , C _{S12} , C _{S13} , C _{S14}	0.1μF	10%	250V, metalized polyester film, 7.5mm lead spacing	Panasonic	ECQ-E2104KF
C _{S3A} , C _{S3B} , C _{S4A} , C _{S4B}	20,000μF	20%	100V electrolytic can	CDE Cornell Dubilier	DCMC203U100BC2B
C _{S5A} , C _{S5B} , C _{S6A} , C _{S6B}	1μF	10%	100V, metalized polyester film, 10mm lead spacing	Panasonic	ECQ-E1105KF
C _{SR1} , C _{SR2}	1μF	20%	63V electrolytic radial, 2mm lead spacing	Panasonic	EEU-EB1J1R0S
D ₁	1A		400V diode, DO-41	Vishay Semiconductor	1N4004-E3/54
D _{Z1}	51V	5%	2W Zener diode, DO-41	Microsemi Corporation	2EZ51D5DO41
D _{Z2}	43V	5%	2W Zener diode, DO-41	Microsemi Corporation	2EZ43D5DO41
D _{ZM}	3.9V	5%	500mW Zener diode, DO-35	Diodes Inc.	1N5228B-T
R _{BLD1} , R _{BLD2} , R _{BLD3} , R _{BLD4}	2kΩ	5%	5W metal oxide	International Yageo Corporation	SQP500JB-2K0
R _{FAN}	1.2kΩ	5%	5W metal oxide	International Yageo Corporation	SQP500JB-1K2
R _{IR1} , R _{IR2} , R _{IR3}	68Ω	1%	5W wirewound silicone	Huntington Electric, Inc.	ALSR-5-68-1%
R _{S1} , R _{S2}	1Ω	5%	¼ Watt carbon film	Panasonic	ERD-S2TJ1R0V

R _G	100Ω	1%	¼ Watt metal film	International Yageo Corporation	MFR-25FBF-100R
R _{Z1}	560Ω	5%	1 Watt metal oxide film	Panasonic	ERG-1SJ561
R _{Z2}	390Ω	5%	½ Watt carbon film	Panasonic	ERD-S1TJ391V
R _{PD}	10kΩ	5%	¼ Watt carbon film	Panasonic	ERD-S2TJ103V
R _{L1}	16A		48V, 400mW SPST, N.O., relay	Panasonic Electric Works	ALE15B48
U ₁	35A		700V bridge rectifier	Fairchild Semiconductor	GBPC3510W
S ₁	6A		DPDT PCB mount, mini slide switch	C&K Components	1201M2S1CQE2
J ₁ , J ₅			3 pin 156mil header, right angle, tin plating	Molex/Waldom Electronics Corp.	26-60-5030
J ₂ , J ₉ , J _{4A} , J _{4B}			2 pin 156mil header, right angle, tin plating	Molex/Waldom Electronics Corp.	26-60-5020
J _{3A} , J _{3B}			4 pin 156mil header, right angle, tin plating	Molex/Waldom Electronics Corp.	26-60-5040
J ₇ , J ₈ , J ₁₁ , J ₁₂ , J ₁₃ , J ₁₄ , J ₁₅			2 pin 100mil header, right angle, tin plating	Molex/Waldom Electronics Corp.	22-05-3021
Transformer1, Transformer2	24V, 300VA		Dual primary, dual secondary torrid transformer	Plitron Manufacturing Inc.	077060201
	$\theta_{SA} = 16.5^{\circ}\text{C/W}$		Peel & stick heat sink for bridge, 1.21" square, 0.55" tall	CTS Electronic Components, Inc	BDN12-5CB/A01
R _{Z3} , R _{Z4} , D _{Z3} , D _{Z4} , C _{SF1} , C _{SF2} , C _{SF3}			Option unused circuits		