

## **STK4048V**

# 150 W min AF Power Amplifier (Split Power Supply)

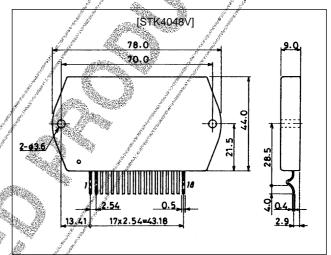
### **Features**

- Compact packaging supports slimmer set designs
- Series designed from 20 up to 100 W (200 W) and pincompatibility (120 to 200 W have 18 pins)
- Simpler heat sink design facilitates thermal design of slim stereo sets
- $\bullet$  Current mirror circuit application reduce distortion to 0.08~%
- Supports addition of electronic circuits for thermal shutdown and load-short protection circuit as well as pop noise muting which occurs when the power supply switch is turned on and off.

## Package Dimensions

unit: mm

4051A



# **Specifications**

Maximum Ratings at  $Ta = 25^{\circ}$  ©

		_
Parameter Symbol Condition	Rating	Unit
Maximum supply voltage	± 87	V
Thermal resistance	1.2	°C/W
Junction temperature	150	°C
Operating substrate temperatureTc	125	°C
Storage temperature / / Tstg / /	-30 to +125	°C

### Recommended Operational Conditions at $Ta = 25^{\circ}C$

Parameter	Symbol	Condition	Rating	Unit
Recommended supply voltage	V <sub>CC</sub>		± 60	V
Load resistance	RL		8	Ω

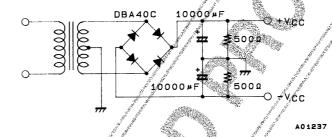
### **Operating Characteristics**

at Ta =  $25^{\circ}$ C,  $V_{CC}$  =  $\pm$  60 V,  $R_{L}$  = 8  $\Omega$ , VG = 40 dB,  $R_{g}$  = 600  $\Omega$ , 100 k LPF ON,  $R_{L}$  (non-inductive load)

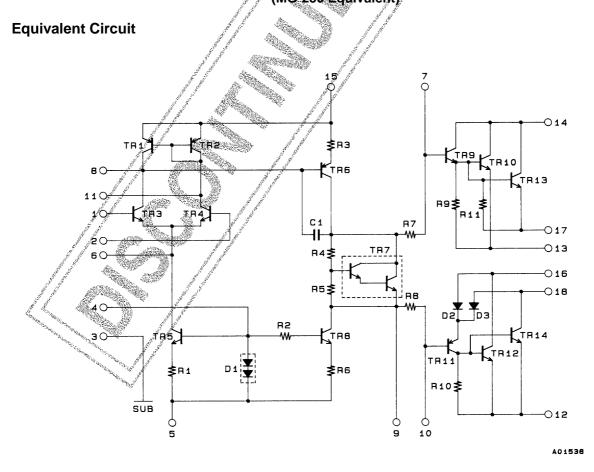
Parameter	Symbol	Condition	Rating			11.5
			min	∮typ √	max	Unit
Quiescent current	I <sub>cco</sub>	$V_{CC} = \pm 72 \text{ V}$	15		120	mA
Output power	P <sub>O</sub>	THD = 0.08 %, f = 20 Hz to 20 kHz	150	# / Au	The state of the s	W
Total harmonic distortion	THD	P <sub>O</sub> = 1.0 W, f = 1 kHz	Ago.		0.08	%
Frequency response	fL, fH	$P_0 = 1.0 \text{ W}, + 0 \\ -3 \text{ dB}$		20 to 50k	to J	Hz
Input resistance	rį	$P_{O} = 1.0 \text{ W}, f = 1 \text{ kHz}$	Mary San	55	Separate Separate	kΩ
Output noise voltage	V <sub>NO</sub>	$V_{CC} = \pm 72 \text{ V}, \text{ Rg} = 10 \text{ k}\Omega$	11 4	1000	1,2	mVrms
Neutral voltage	V <sub>N</sub>	V <sub>CC</sub> = ± 72 V	<i>-</i> 70 √	0	.√ <b>#</b> 70	mV

Note: Use a constant-voltage power supply as the test power supply unless otherwise specified

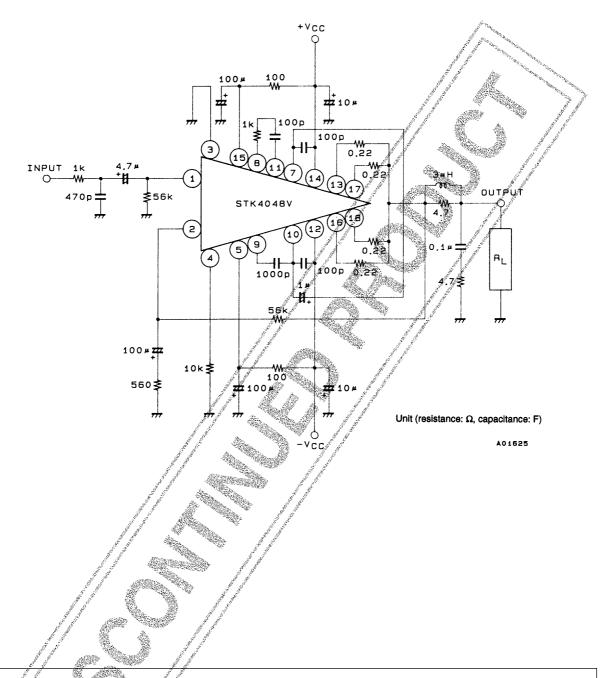
<sup>\*</sup> The output noise voltage is the peak value measured with an averaging rms scale volt meter. The noise voltage waveform should not include pulse noise.



# Specified Transformer Power Supply (MG-250 Equivalent)



### Application Circuit: 150W min Single Channel AF Power Amplifier



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