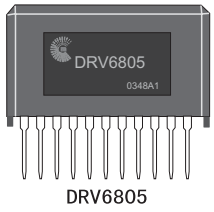
HIGH-PERFORMANCE 200W AUDIO POWER AMPLIFIER

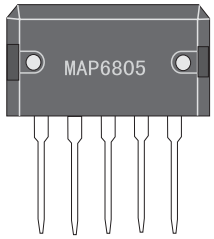
FEATURES

- HIGH OPERATING VOLTAGE RANGE(±50V)
- ADUIO IGBT OWER STAGE
- VERY HIGH OUTPUTPOWER(120w@8Ω,230w@4Ω)
- VERY HIGH OUTPUT CURRENT-20A
- VERY LOW DISTORTIONG-LESS THAN 0.1%
- SIMPLE CIRCUIT FOR EASY USE
- FAST SHORT CIRCUIT PROTECTION SUPPORT
- HIGH QUALITY SOUND FOR HI-FI AND AV SYSTEM

PACKAGE VIEW



DRV6805

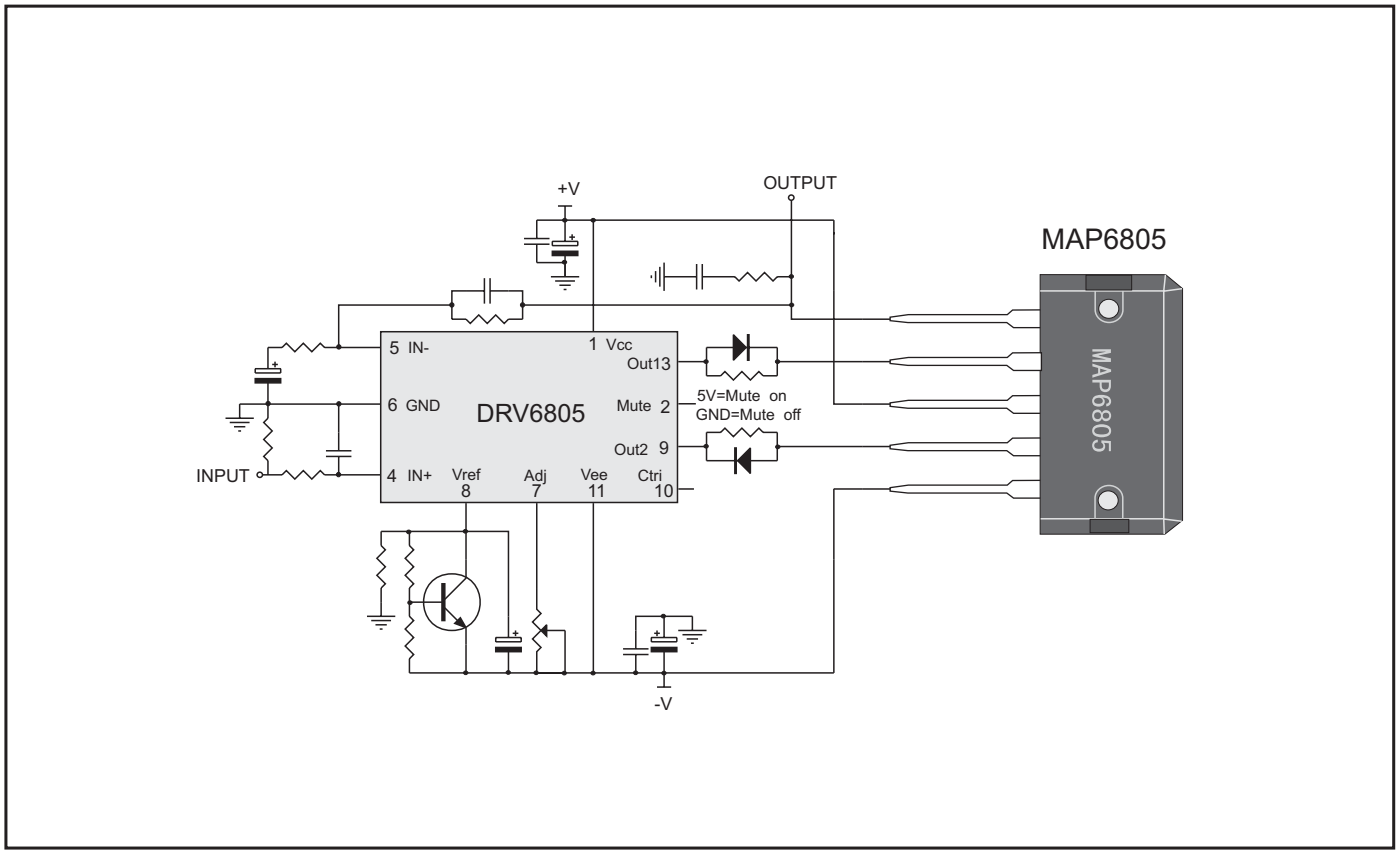


MAP6805

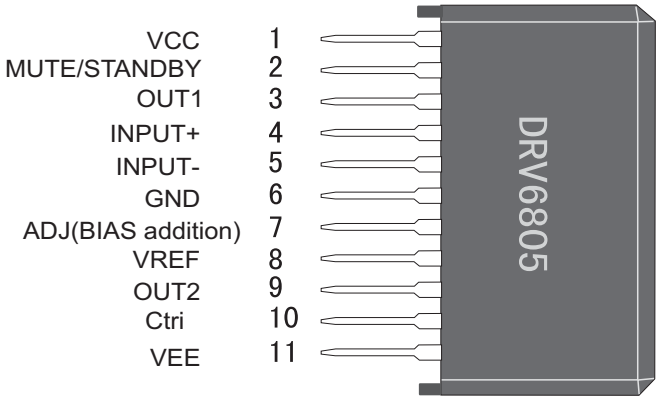
APPLICATION

- HI-FI AUDIO AMPLIFIER
- HOME THEATER AUDIO AMPLIFIER
- HIGH-END CAR AUDIO
- SUBWOOF POWER AMLIFIER
- OTHER LINEAR AMPLIFIER

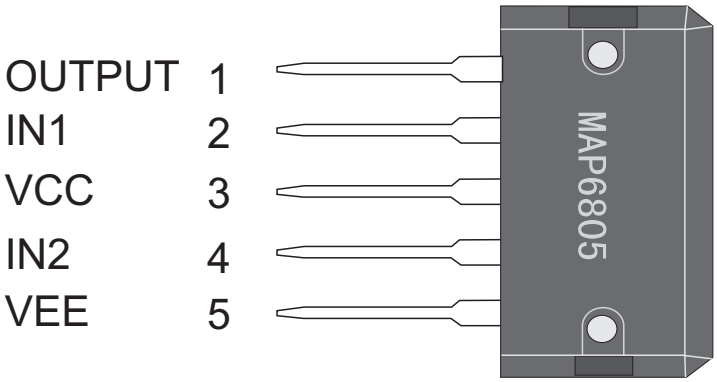
Figure 1: Typical Application Circuit



Pin Connection With DRV6805(top View)



Pin Connection With MAP6805(top View)



Absolute Maximum Rationgs

MAP6805

SUPPLY VOLTAGE	+/- 50V
OUTPUT PEAK CURRENT	+/-20A
POWER DISSIPATION	300W@25℃
POWERDISSIPATION	120W@100℃
OPERATING AMBIENT TEMPERATURE RANGE	0-100℃
STORAGE AND JUNCTION TEMPERATURE	150℃

DRV6805

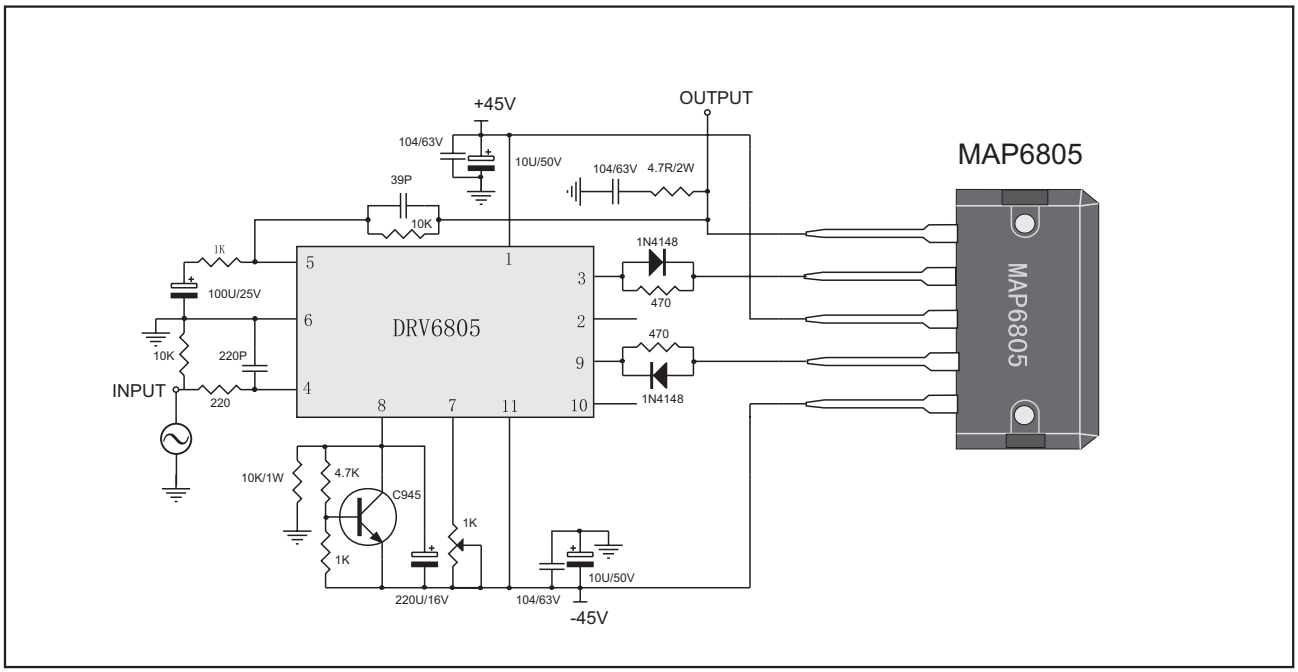
SUPPLY VOLTAGE	+/- 50V
OUTPUT PEAK CURRENT	+/-200MA
COMMAN MODE INPUT VOTAGE	80V MAX
DIFFERENTIAL INPUT VOLTAGE	70V MAX
OPERATING AMBIENT TEMPERATURE RANGE	0-100℃
STORAGE AND JUNCTION TEMPERATURE	150℃

CATION ! DRV6805 AND MAP6805 MUST BE CONNECTED TO THE SAME SUPPLY.

ELECTRICAL CHARACTERISTICS (Refer to the Test Circuit $V_S = \pm 45V$, $R_L = 8\Omega$, $G_V = 21$ dB; $R_g = 50\Omega$; $T_{amb} = 25°C$, f = 1 kHz; unless otherwise specified.

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Unit
V_S	Supply Range		±10		±50	V
I_q	Quiescent Current		20	30	60	mA
I_b	Input Bias Current			3		uA
V_{OS}	Input Offset Voltage				±20	mV
I_{OS}	Input Offset Current				±100	nA
P_O	RMS Continuous Output Power	d = 0.5%; $V_S = \pm 45V$, $R_L = 8\Omega$ $R_L = 4\Omega$ $R_L = 2\Omega$		 120 200 280		 W W W
	Music Power (RMS) IEC268.3 RULES - Δt = 1s (*)	d = 10% $R_L = 8\Omega$; $V_S = \pm 45V$ $R_L = 4\Omega$ $R_L = 2\Omega$		 150 250 330		 W W W
d	Total Harmonic Distortion (**)	P_O = 5W; f = 1kHz P_O = 0.1 to 50W; f = 20Hz to 20kHz		0.02	 0.1	 %
		$V_S = \pm 45V$, $R_L = 4\Omega$: P_O = 5W; f = 1kHz P_O = 0.1 to 50W; f = 20Hz to 20kHz		0.02	 0.1	 % %
SR	Slew Rate		7	35		V/μs
G_V	Open Loop Voltage Gain			65		dB
G_V	Closed Loop Voltage Gain		15	21	27	dB
e_N	Total Input Noise	A = curve f = 20Hz to 20kHz		2	 5	μV μV
f_L, f_H	Frequency Response (-3dB)	P_O = 1W	5-100KHz			
R_i	Input Resistance			10		kΩ
SVR	Supply Voltage Rejection	f = 100Hz; V_{ripple} = 0.5Vrms	60	75		dB
T_S	Thermal Shutdown			145		°C

Figure 2: Test Circuit



TYPICAL CHARACTERISTICS
(Application Circuit of fig 1 unless otherwise specified)

Figure 3: Output Power vs. Supply Voltage.

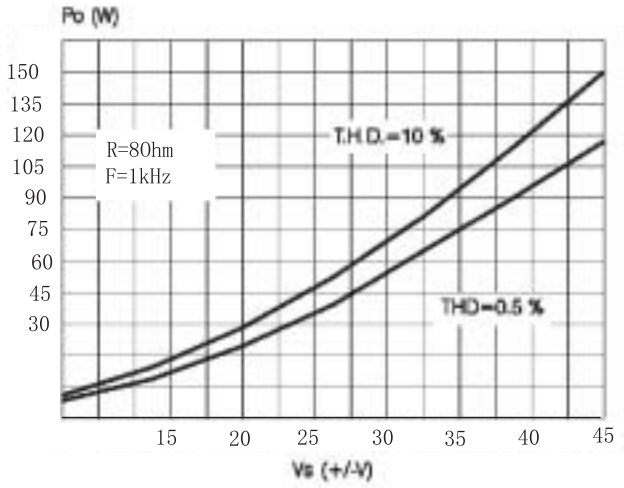


Figure 4: Distortion vs. Output Power

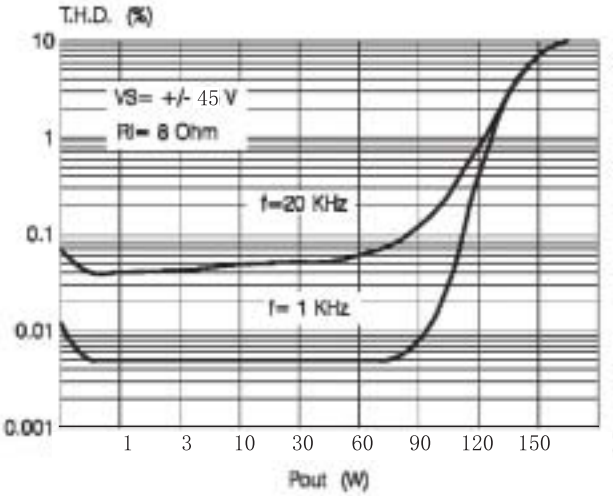


Figure 5: Output Power vs. Supply Voltage

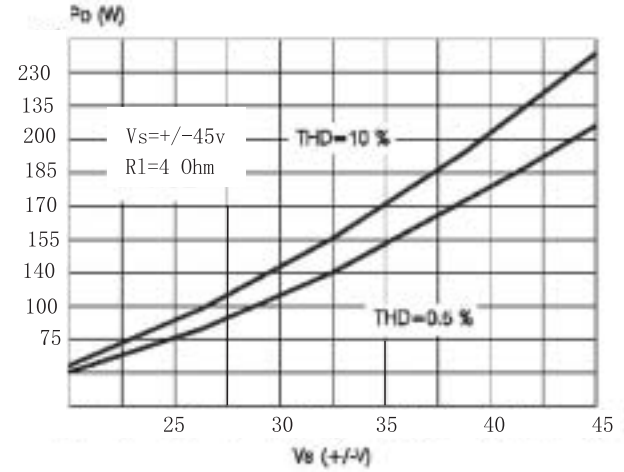


Figure 6: Distortion vs. Output Power

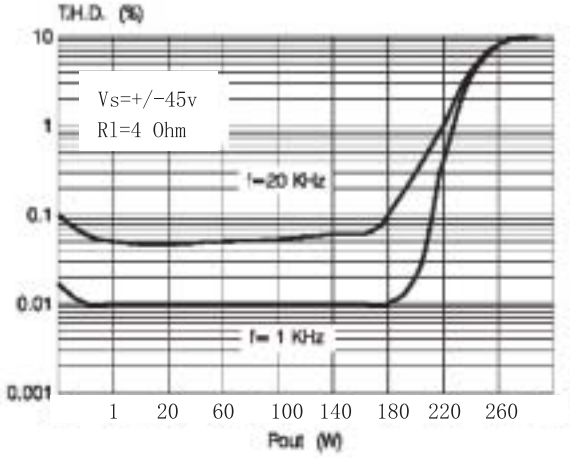


Figure 7: Distortion vs. Frequency

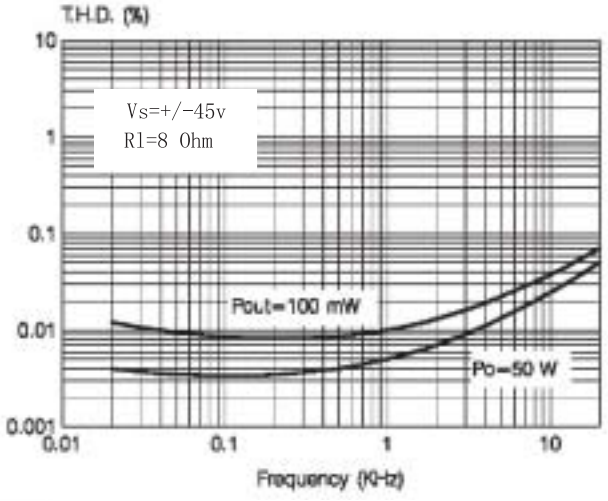
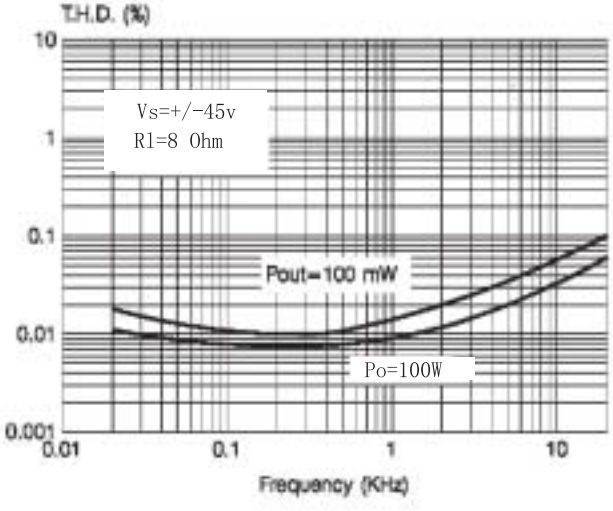


Figure 8: Distortion vs. Frequency



TYPICAL CHARACTERISTICS (continued)

Figure 9: Typical Current vs. Supply Voltage

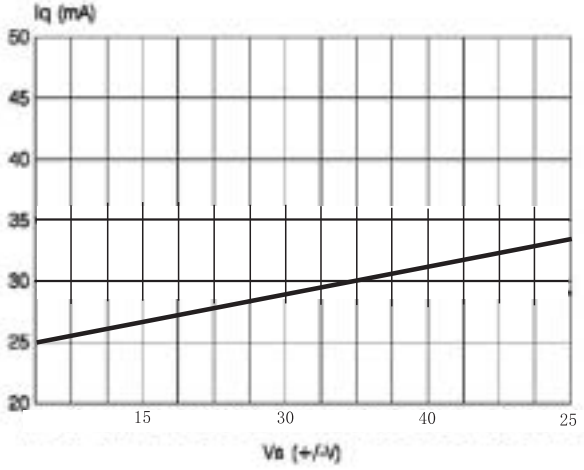


Figure 10: Supply Voltage Rejection vs. Frequency

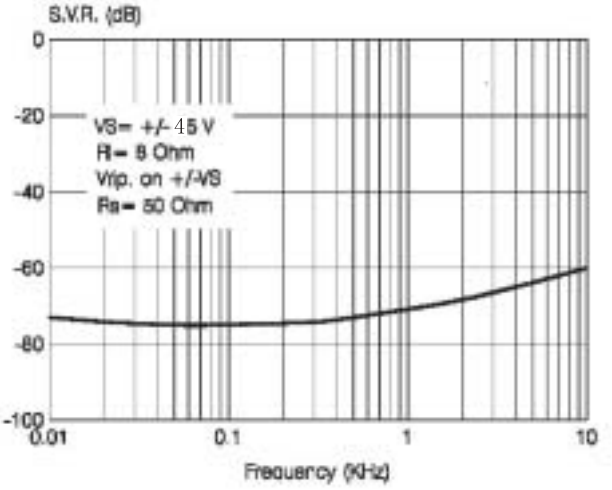


Figure 11: Maximum Output Voltage(vpp)

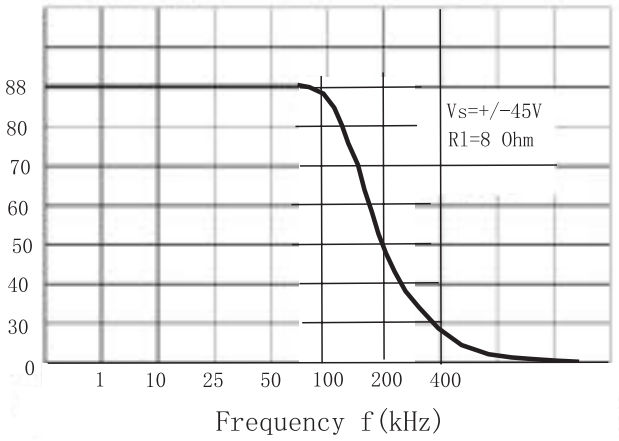


Figure 12: Minorl Signal Frequency Response (db)

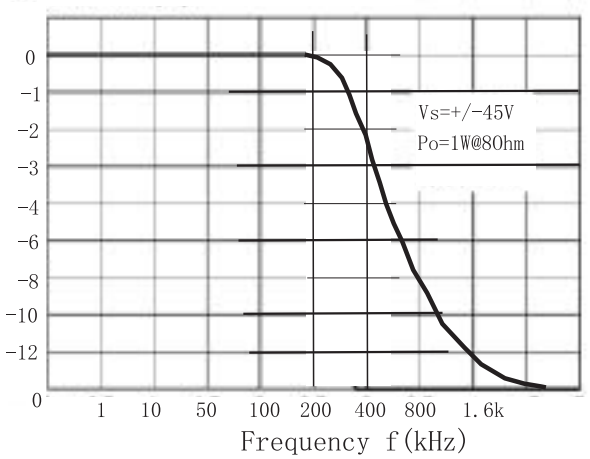


Figure 13: Power Dissipation vs. Output Power

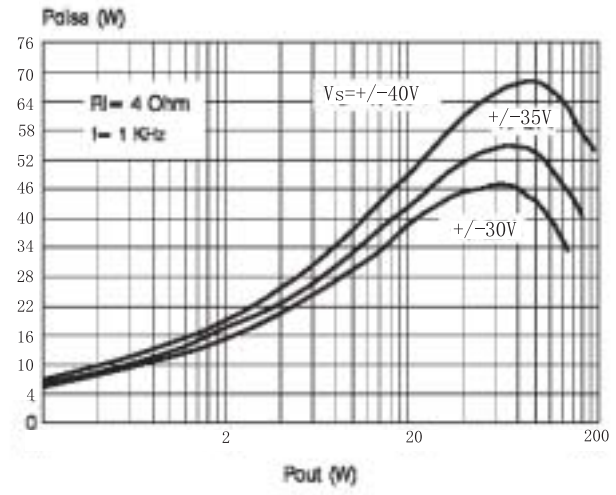


Figure 14: Power Dissipation vs. Output Power

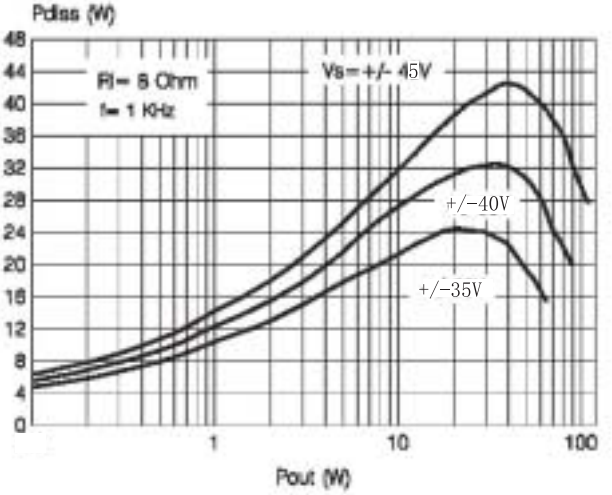


Figure 15: 120wx2/8 ohm stereo hi-fi amplifier

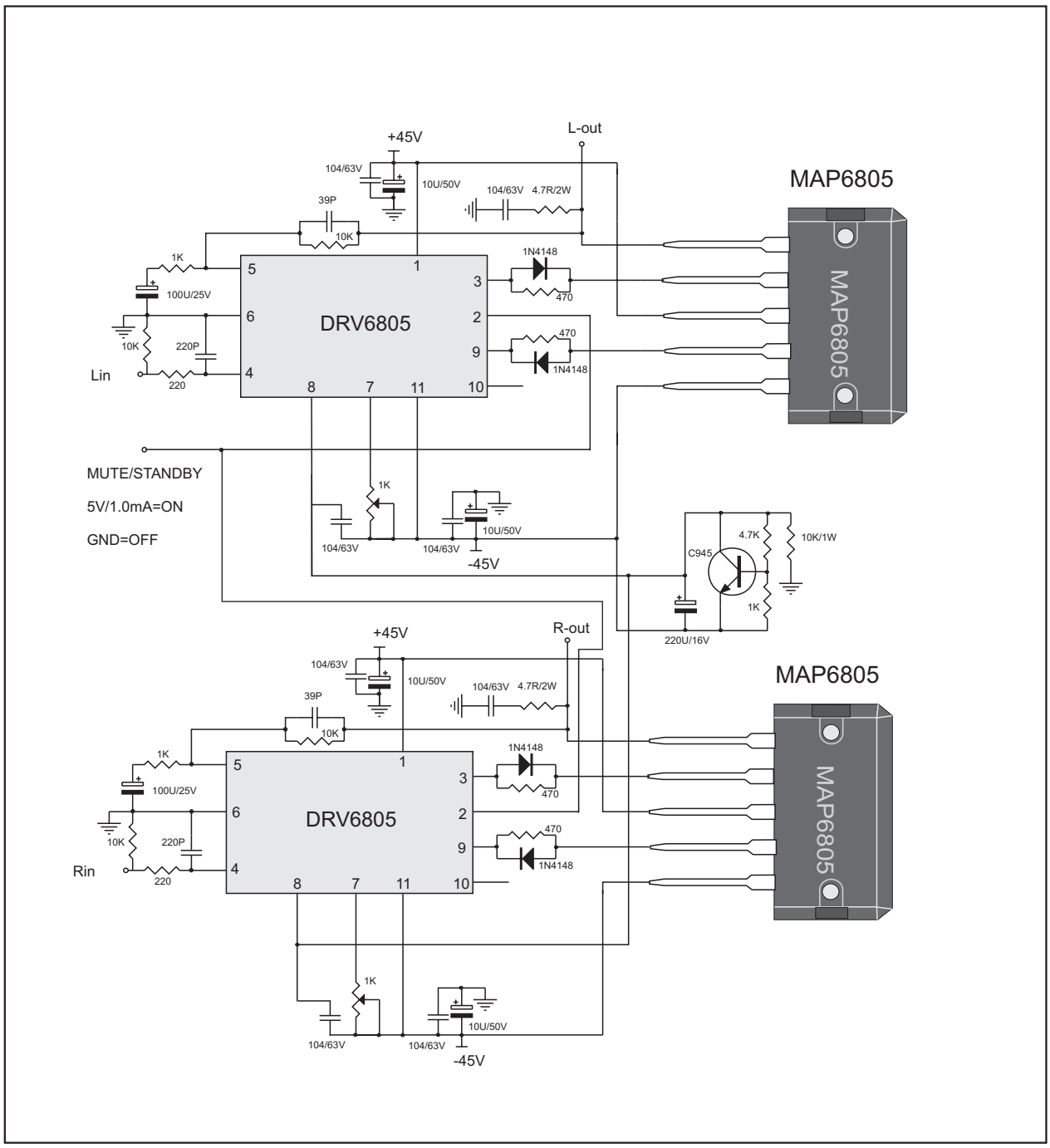


Figure 16: Physical Dimensions