

# AS 200.2

[ Rev. 2.0 - 2014/02 ]

2-channel AB class amplifier

## CEA-2006-A SPECIFICATIONS

**POWER RATING: 200 Watt per channel @ 4 Ohm < 1% THD+N**  
**SN RATIO: >85 dBA (reference: 1 Watt into 4 Ohm)**

## MOS SPECIFICATIONS (Tcase = 25 °C / 4 Ohm stereo / 0.2V input level @ 14.4 Volt if not otherwise specified)

**TARGET POWERS:**  
200 Watt per channel @ 4 Ohm  
320 Watt per channel @ 2 Ohm  
640 Watt BTL mode @ 4 Ohm  
1000 Watt BTL mode @ 2 Ohm (\*)

**EFFECTIVE POWERS:**  
219 Watt (167 Watt @12V6) x 2      44.8 A ( $\eta = 67.9\%$ ) @ 4 Ohm / ST mode / 1% THD / 1KHz  
357 Watt (273 Watt @12V6) x 2      80.1 A ( $\eta = 61.9\%$ ) @ 2 Ohm / ST mode / 1% THD / 1KHz  
714 Watt (546 Watt @12V6) x 1      80.1 A ( $\eta = 61.9\%$ ) @ 4 Ohm / BTL mode / 1% THD / 1KHz

**THD @ 4 Ohm / ST mode:** < 0.02 % (1KHz / 90% Power rating ref)  
**THD @ 2 Ohm / ST mode:** < 0.02 % (1KHz / 90% Power rating ref)  
**DIM @ 4 Ohm / ST mode:** < ---- % (Power rating ref)  
**DIM @ 2 Ohm / ST mode:** < ---- % (Power rating ref)

**DC-DC converter typology:** Unregulated  
**Conversion frequency:** 50 KHz ( $\pm 6\%$ )  
**Absolute maximum operation supply voltage range:** 10 V ÷ 16 V  
**Recommended operation supply voltage range:** 11 V ÷ 14.4 V  
**Power-on/Power-off Voltage Threshold:** 9 V / 7.5 V  
**Mute delay time:** 3 secs  
**Secondary voltages (Amp. / Driver / Pre.):**  $\pm 46.8\text{ V} / \pm 7.5\text{ V} / \pm 13.5\text{ V}$   
**Max output offset voltage (each channel):**  $\pm 15\text{ mV}$   
**Standby current:** 1.8 mA (typical)  
**Quiescent consumption @ 12V6 / 14V4:** 0.67 A / 0.76 A (no idle current regulation)  
**Idle current regulation (no signal):** 0.08 A (each channel)  
**Quiescent consumption @ 12V6 / 14V4:** 0.80 A / 0.92 A (with idle current setted)  
**Thermal protection consumption:** 1.1 A  
**Battery ground vs secondary ground decoupling:** 1 KOhm  
**Body ground vs battery ground decoupling:** 65 Ohm  
**Bandwidth (-3dB ÷ 1 Watt):** < 5 Hz ÷ 150 KHz  
**Input sensitivity (Power rating ref):** 0.2 V ÷ 5 V  
**Input impedance @ 1 KHz (STEREO input):** 11 KOhm  
**Input capacitance @ 1 KHz (STEREO input):** 220 pF  
**Input ground decoupling:** 15R  
**S/N ratio (AP filter 10 Hz - 500 KHz) – Power rating ref:** 93 dB  
**S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref:** 108 dB (“A” weighted)  
**Eq. Input noise (AP filter 10 Hz - 500 KHz):** 4,81 uV  
**Eq. Input noise (AP filter 10 Hz - 22 KHz):** 0.8 uV (“A” weighted)  
**Channel separation @ 100Hz / 1KHz / 10KHz – 10 Watt ref:** 87 dB / 76 dB / 58 dB  
**Xover functions:** HIGH Pass & LOW Pass (BAND Pass allowed)  
(20 ÷ 175Hz) & (50 ÷ 300Hz)  
12 dB/oct - 0.7 (Stereo & Mono)  
**Filter slope - Filter “Q”:** 88 °C ( $\pm 5^{\circ}\text{C}$ )  
**Thermal cutoff Threshold:** 55 °C ( $\pm 5^{\circ}\text{C}$ )  
**ProSPEED® Fan Controller Threshold:** 173 / 253  
**Damping factor @ 100 Hz - 10 Watt ref (Right / Left):** 171 / 276  
**Damping factor @ 1 KHz - 10 Watt ref (Right / Left):** 151 / 204  
**Damping factor @ 10 KHz - 10 Watt ref (Right / Left):** 23 mOhm / 14 mOhm  
**Output impedance @ 1 KHz - 10 Watt ref (Right / Left):** 1 Ohm / 2 Ohm (Stereo / Bridged)  
**Load drive limitations (\*):** 80 A (Internal)  
**Suggested fuse:**

(\*) VERY IMPORTANT NOTE - READ CAREFULLY

4 Ohm ST or 8 Ohm BTL – CONTINUOUS SINEWAVE SIGNAL – pure resistive load or speaker load  
2 Ohm ST or 4 Ohm BTL – MUSICAL SIGNAL – pure resistive load or speaker load  
1 Ohm ST or 2 Ohm BTL – MUSICAL SIGNAL – speaker load only

- Features may change without notice -