

A CLASS

[Rev. 2.0 - 2012/07]

2-channel AB class amplifier

CEA-2006-A SPECIFICATIONS

POWER RATING: 100 Watt per channel @ 4 Ohm < 2% THD+N
SN RATIO: > 77 dBA (reference: 1 Watt into 4 Ohm)

MOS SPECIFICATIONS (Tcase = 25 °C / 4 Ohm stereo / 0.28Vrms input level @ 12 Volt if not otherwise specified)

TARGET POWERS: 100 Watt per channel @ 4 Ohm
200 Watt per channel @ 2 Ohm

EFFECTIVE POWERS: 118 Watt per channel 35.7 A ($\eta = 55.0\%$) @ 4 Ohm / 3 % THD / 1KHz / 2 CH driven
200 Watt per channel 64.1 A ($\eta = 52.0\%$) @ 2 Ohm / 3 % THD / 1KHz / 2 CH driven

THD @ 4 Ohm / ST mode: < 2 % (1KHz / 90% Power rating ref)
THD @ 2 Ohm / ST mode: < 2 % (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: Fully Independent, Primary Regulated, Twin Power Supply
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 (Vcc / Hv / Vdrv / Pre / Vserv / Vboot): $\pm 35\text{ V} / \pm 98\text{ V} / \pm 56\text{ V} / \pm 15.5\text{ V} / + 14.8\text{ V} / \pm 5\text{ V}$
Max output offset voltage (each channel): $\pm 15\text{ mV}$
Standby current: 1 mA (typical)
Quiescent consumption: 4.4 A
Battery ground vs secondary ground decoupling: 1 Kohm
Body ground vs battery ground decoupling: 65 Ohm
Bandwidth (-3dB ÷ 1 Watt): 5 Hz ÷ 165 KHz
Input sensitivity (Power rating ref): 0.2 V ÷ 5 V
Input impedance @ 1 KHz (STEREO input): 16 KOhm
Input capacitance @ 1 KHz (STEREO input): 100 pF
Input ground decoupling: 33 Ohm
S/N ratio (AP filter 10 Hz - 500 KHz) – Power rating ref: 72 dB
S/N ratio (AP filter 10 Hz - 22 KHz) – Power rating ref: 100 dB (“A” weighted)
Eq. Input noise (AP filter 10 Hz - 500 KHz): 70 uV
Eq. Input noise (AP filter 10 Hz - 22 KHz): 2.8 uV (“A” weighted)
Channel separation @ 100Hz / 1KHz / 10KHz – 10 Watt ref: 76 dB / 76 dB / 62 dB
Thermal cutoff Threshold: 88 °C ($\pm 5^\circ\text{C}$)
ProSPEED® Fan Controller Threshold: 55 °C ($\pm 5^\circ\text{C}$)
Damping factor @ 100 Hz - 10 Watt ref (Left / Right): 25 / 25
Damping factor @ 1 KHz - 10 Watt ref (Left / Right): 25 / 25
Damping factor @ 10 KHz - 10 Watt ref (Left / Right): 24 / 24
Special features: A-CoDe® (A-Class on Demand) proprietary technology
DIRECT DRIVE facility (straight input to the power stage)
SMOOTH HARMONICS POWER CLIPPING CONTROLLER
30 Watt_{RMS}
2 Ohm
80 A (Internal)

“AB” class transition threshold:
Load drive limitations (*):
Suggested fuse:

(*) VERY IMPORTANT NOTE - READ CAREFULLY

ONLY STEREO MODE IS ALLOWED - This product doesn't support BTL and/or Tri-mode configuration.