



DIO2105

Ultra Low THD Audio Line Driver with Adjustable Gain

Features

- Qualified power output capability
- 2 Vrms output with 10k Ω load
- Ultra Low Distortion
SNR>100dB
Typical Vn<10 μ Vrms
THD+N<0.001% at 2 Vrms
- No Pop/Clicks Noise when Power ON/OFF
- Optimized Frequency Response between 20Hz–20kHz
- Accepting Differential Input
- Featuring external under voltage mute
- Available in EP-MSOP10 package

Applications

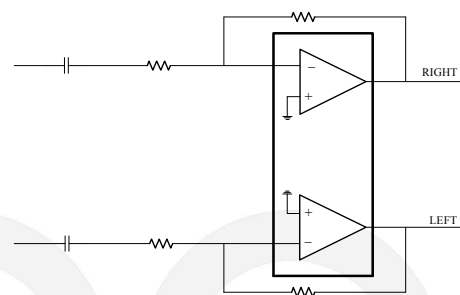
- Flat Panel Display
- High Definition DVD Players
- MID
- STB

Descriptions

The DIO2105 is specially designed for flat panel TV, high definition DVD players and MID applications to optimize the audio driver circuit performance while reducing the BOM cost by eliminating the peripheral discrete components. DIO2105 features qualified power output capability under 32 Ω load and more than 2Vrms stereo audio output swing under 10K ohm load with no need of AC coupling capacitors at output ports.

Featuring differential input mode, gain range of ± 1 V/V to ± 10 V/V can be achieved via external gain resistor setting. Meanwhile, the DIO2105 offers built-in power-on and shut-down control circuitry for optimal pop-free performance during power-ON and power-OFF conditions.

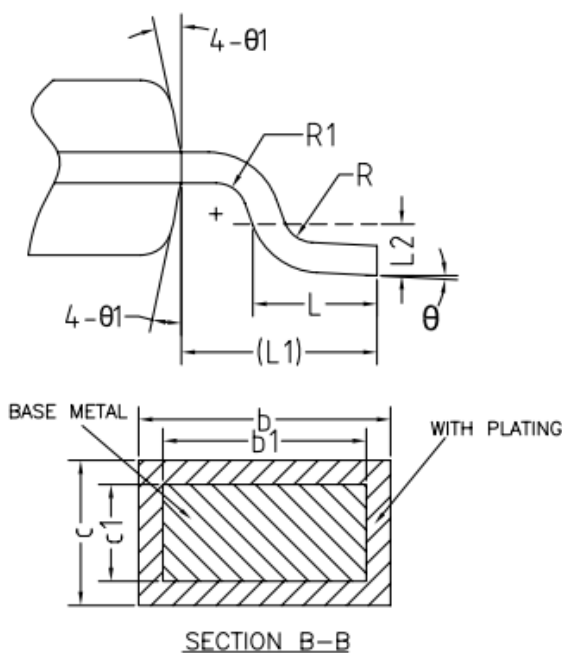
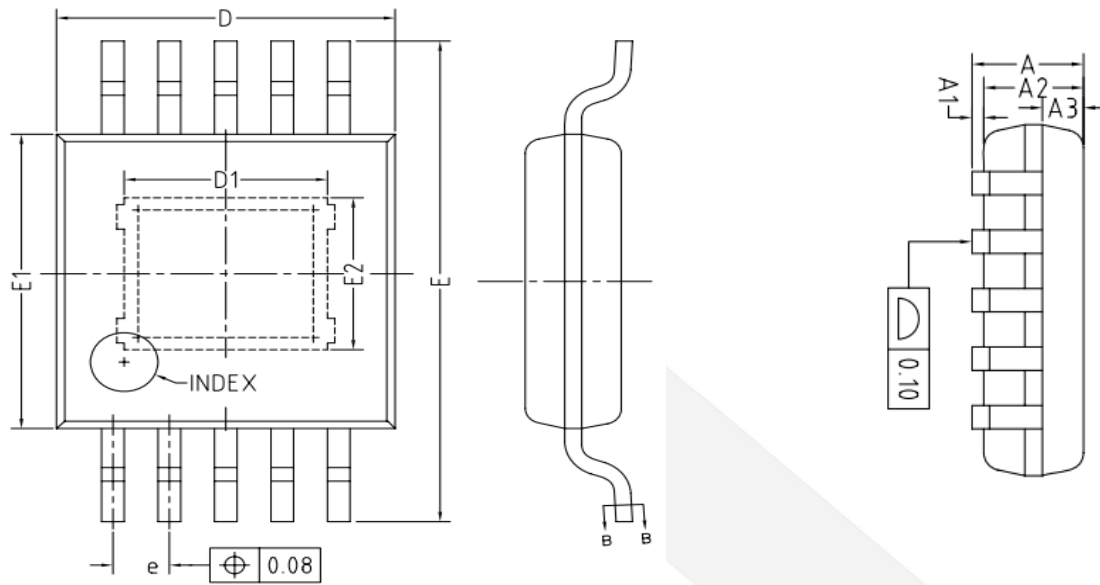
Block Diagram



Ordering Information

| Order Part Number | Top Marking | | T _A | Package | |
|-------------------|-------------|------------|----------------|-----------|-------------------|
| DIO2105XM10 | DIO2105 | Green/RoHS | -40 to +85°C | EP-MSOP10 | Tape & Reel, 3000 |

Physical Dimensions: EP-MSOP-10



| SYMBOL | MIN | NOM | MAX |
|--------|---------|------|------|
| A | - | - | 1.10 |
| A1 | 0 | - | 0.15 |
| A2 | 0.75 | 0.85 | 0.95 |
| A3 | 0.25 | 0.35 | 0.39 |
| b | 0.18 | - | 0.27 |
| b1 | 0.17 | 0.20 | 0.23 |
| c | 0.15 | - | 0.20 |
| c1 | 0.14 | 0.15 | 0.16 |
| D | 1.90 | 3.00 | 3.10 |
| D1 | 0.75 | - | 2.50 |
| E | 4.70 | 4.90 | 5.10 |
| E1 | 2.90 | 3.00 | 3.10 |
| E2 | 0.75 | - | 2.50 |
| e | 0.40 | 0.50 | 0.60 |
| L | 0.40 | 0.60 | 0.80 |
| L1 | 0.95REF | | |
| L2 | 0.25BSC | | |
| R | 0.07 | - | - |
| R1 | 0.07 | - | - |
| θ | 0° | - | 8° |
| θ1 | 9° | 12° | 15° |

CONTACT US

Dioo is a professional design and sales corporation for high-quality and performance analog semiconductors. The company focuses on industry markets, such as, cell phone, handheld products, laptop, and medical equipments and so on. Dioo's product families include analog signal processing and amplifying, LED drivers and charger IC. Go to <http://www.dioo.com> for a complete list of Dioo product families.

For additional product information, or full datasheet, please contact with our Sales Department or Representatives.



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DIOO:

DIO2105XM10