



## DIO2125XM10

### 3Vrms Audio Driver with Adjustable Gain

#### Features

- Voltage Output at 2.5k $\Omega$  Load:  
3Vrms With 5V Supply Voltage
- Ultra Low Distortion:  
SNR>109dB  
Typical  $V_n$ <7 $\mu$ Vrms  
THD+N<0.001%
- No Pop/Clicks Noise when Power ON/OFF
- No Need for Output DC-Blocking Capacitors
- Optimized Frequency Response between  
20Hz–20kHz
- Accepting Differential Input
- Featuring external under voltage mute
- Output Pin HBM ESD protection 8kV
- Package available in EP-MSOP-10 with  
exposed Pad

#### Applications

- Set-Top Boxes
- High Definition DVD Players
- Car Entertainment System
- Medical
- Flat Panel TV

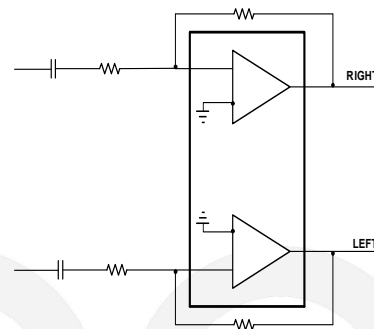
#### Descriptions

The DIO2125 is an integrated solution for Set-top box and high definition player, and designed to optimize the audio driver circuit performance while reducing the BOM cost by eliminating the peripheral discrete components for noise reduction. DIO2125 is able to deliver up to 3Vrms audio output with no need of output AC- coupling capacitors.

Featuring differential input mode, gain range of  $\pm 1$  V/V to  $\pm 10$  V/V can be achieved via external gain resistor setting. The DIO2125 is able to offer 3Vrms output with 2.5k ohm load under 5V supply.

Meanwhile, the DIO2125 offers built-in shut-down control circuitry for maximum noise reduction under power-up or power-down conditions.

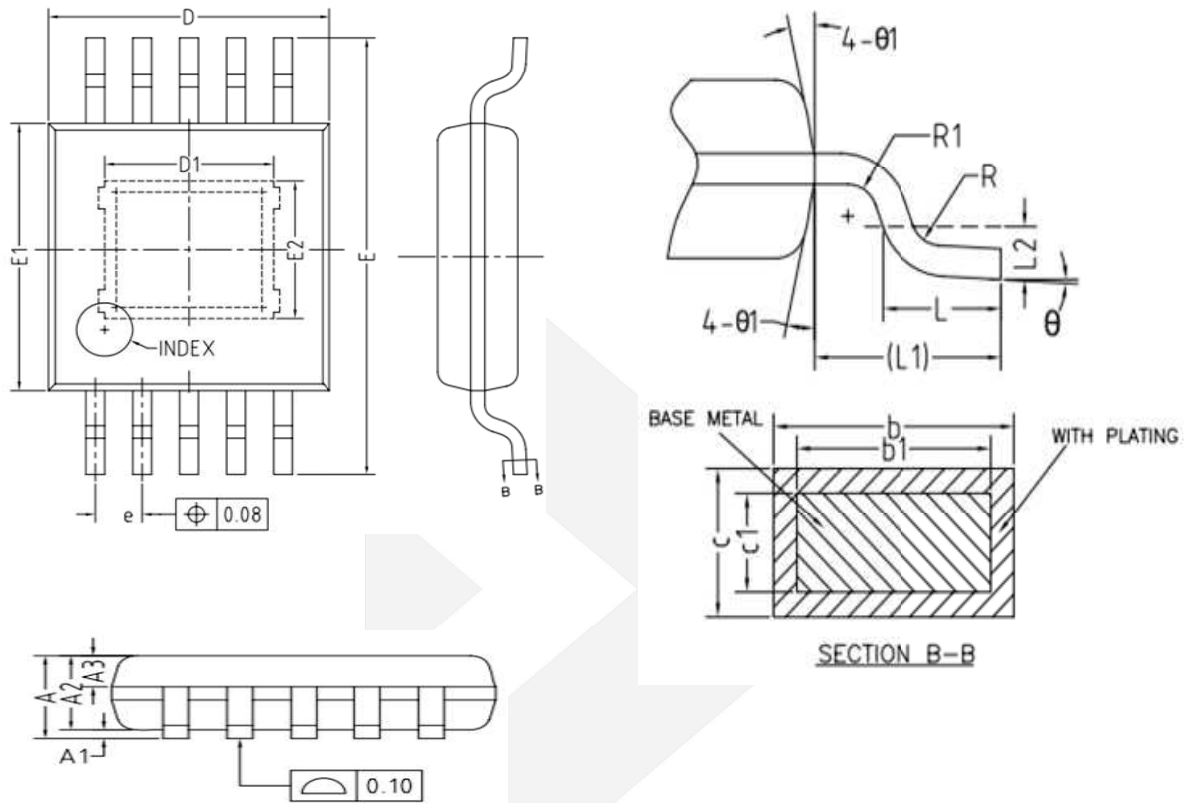
#### Block Diagram



#### Ordering Information

Order Part Number	Top Marking		T <sub>A</sub>	Package	
DIO2125XM10	DIO2125	Green/RoHS	-40 to +85°C	EP-MSOP-10	Tape & Reel, 3000

## Physical Dimensions: EP-MSOP-10(Exposed Pad)



Symbol	Min	Typ	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	2.90	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

**D**ioo 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.

