DIO2103

3-Vrms Audio Driver with Adjustable Gain

Features

- Voltage Output at 2.5kΩ Load
  -- 3Vrms With 5V Supply Voltage
- Ultra Low Distortion
  SNR>109dB
  Typical Vn<7μVrms
  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
- HBM ESD protection: Output pin 8kV
  and other pins 5kV
- Available in TSSOP-14 package

Descriptions

The DIO2103 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. DIO2103 features a 3Vrms stereo audio driver that designed to allow for the removal of output AC-coupling capacitors.

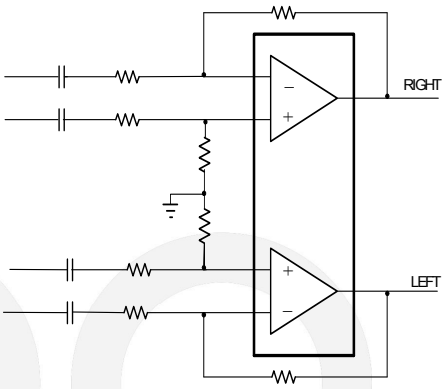
Featuring differential input mode, gain range of ±1V/V to ±10V/V can be achieved via external gain resistor setting. The DIO2103 is able to offer 3Vrms output with 2.5kΩ load and 5V supply.

Meanwhile, the DIO2103 offers built-in shut-down control circuitry for optimal pop-free performance. Under under-voltage condition, DIO2103 is able to detect it and mutes the output.

Applications

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

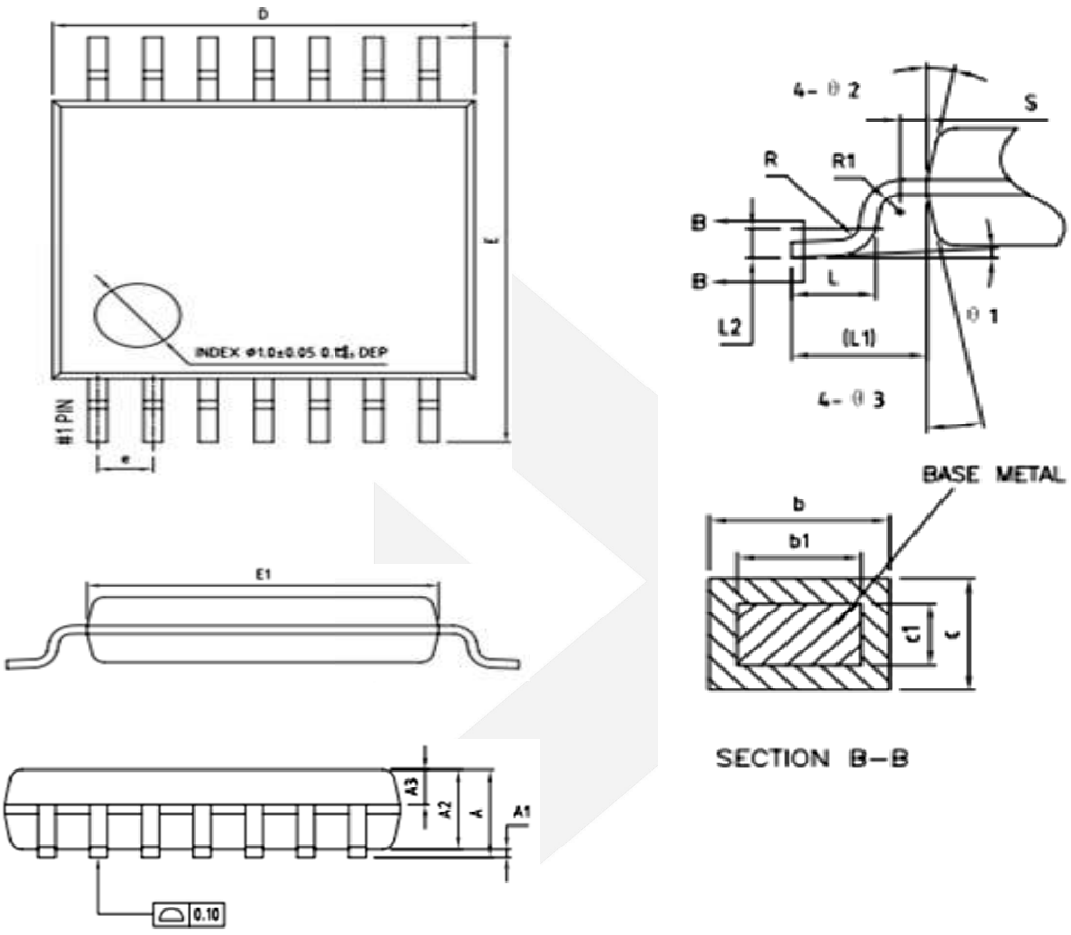
Block Diagram



Ordering Information

Order Part Number	Top Marking		T_A	Package	
DIO2103CT14	DIO2103	Green/RoHS	-40 to +85°C	TSSOP-14	Tape & Reel, 2500

Physical Dimensions: TSSOP-14



Symbol	Dimensions In Millimeters		
	Min	Nom	Max
A	-	-	1.20
A1	0.05	-	0.15
A2	0.90	1.00	1.05
A3	0.34	0.44	0.54
b	0.20	-	0.28
b1	0.20	0.22	0.24
c	0.10	-	0.19
c1	0.10	0.13	0.15
D	4.86	4.96	5.06
E	6.20	6.40	6.60
E1	4.30	4.40	4.50
e		0.65BSC	
L	0.45	0.60	0.75
L1		1.00REF	
L2		0.25BSC	
R	0.09	-	-
R1	0.09	-	-
S	0.20	-	-
θ1	0°	-	8°
θ2	10°	12°	14°
θ3	10°	12°	14°