



DIO2352

30 μ V_{os}, 1.2MHz, RRIO CMOS High-Precision Amplifier

Features

- Rail-to-Rail Input and Output
- Low offset (V_{OS}): 30 μ V
- Input offset drift: 0.01 μ V/ $^{\circ}$ C
- Unity Gain Stable
- Gain Bandwidth Product: 1.2MHz
- Very low input bias currents : 20pA
- Wide supply range: 2.5V to 5.5V
- Single Supply Operation
- Low power: 0.65mA per channel
- Small size packaging best for portable application: SOIC-8, MSOP-8 and TSSOP-8

Descriptions

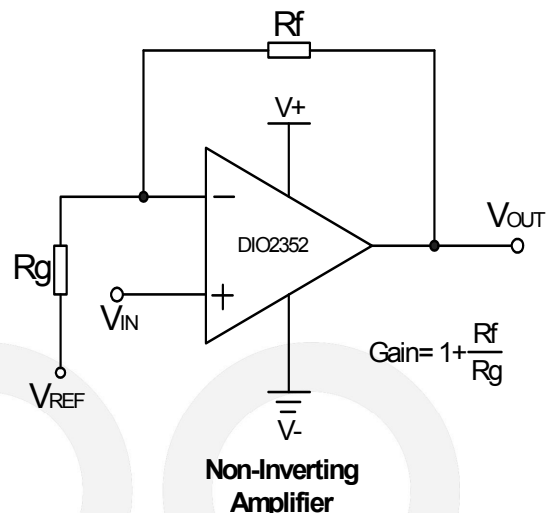
The DIO2352 is an ultra-low offset voltage rail-to-rail input and output voltage feedback amplifier. They have a wide input common-mode voltage range and output voltage swing, and take the operating supply voltage is from 2.5 to 5.5V. They provide 1.2MHz bandwidth.

The DIO2352 features an offset voltage of only 30 μ V and drift of 0.01 μ V/ $^{\circ}$ C, which makes the product perfect in applications of intolerant errors. Temperature/position/pressure sensors and medical equipment can benefit greatly from nearly zero drift over their operating temperature range.

Applications

- Temperature measurement
- Pressure sensor
- Precision current sensing
- Strain Gage Amplifier
- Medical instrument
- Thermocouple amplifier
- Handheld Test Equipment

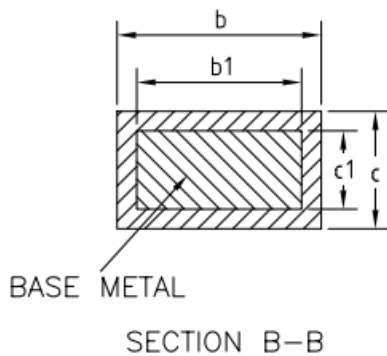
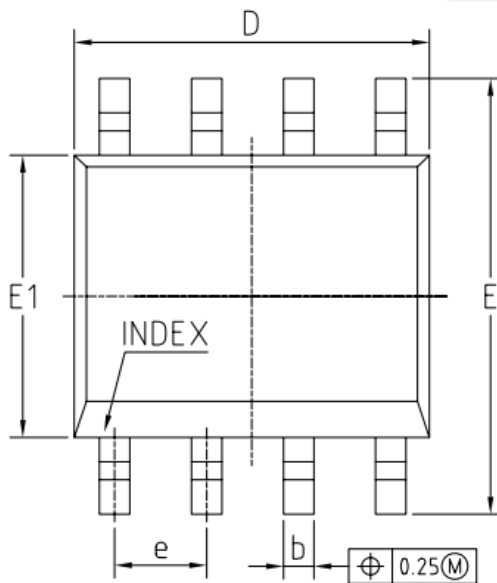
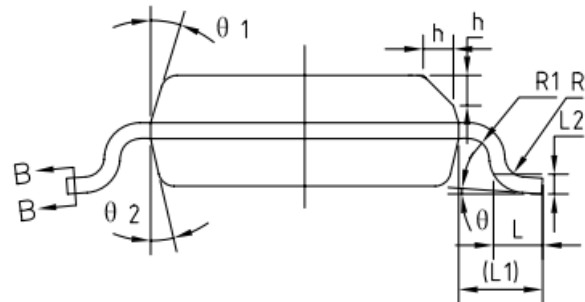
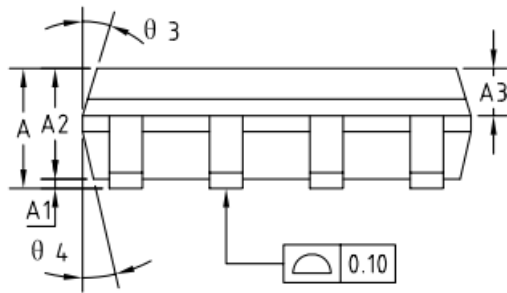
Typical Application



Ordering Information

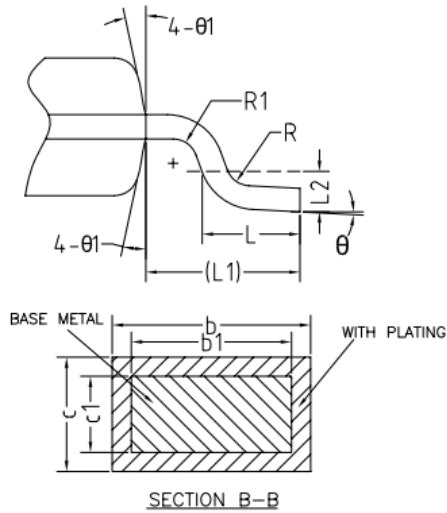
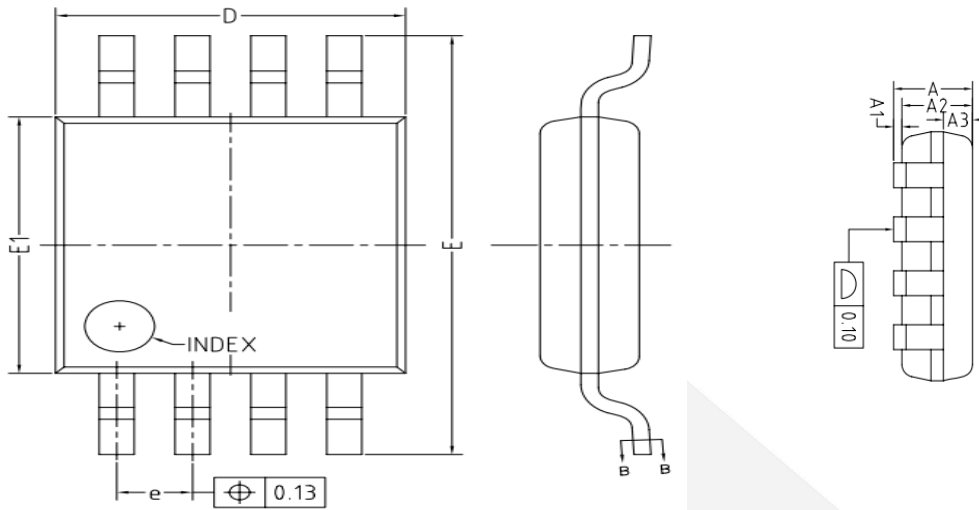
Order Part Number	Top Marking		T_A	Package	
DIO2352MP8	DIO2352	Green/RoHS	-40 to +125 $^{\circ}$ C	MSOP-8	Tape & Reel, 3000
DIO2352SO8	DIO2352	Green/RoHS	-40 to +125 $^{\circ}$ C	SOIC-8	Tape & Reel, 2500
DIO2352TP8	DIO2352	Green/RoHS	-40 to +125 $^{\circ}$ C	TSSOP-8	Tape & Reel, 3000

Physical Dimensions: SOIC-8



COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	1.35	1.55	1.75
A1	0.10	0.15	0.25
A2	1.25	1.40	1.65
A3	0.50	0.60	0.70
b	0.38	-	0.51
b1	0.37	0.42	0.47
c	0.17	-	0.25
c1	0.17	0.20	0.23
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
L	0.45	0.60	0.80
L1	1.04REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
h	0.30	0.40	0.50
θ	0°	-	8°
θ1	15°	17°	19°
θ2	11°	13°	15°
θ3	15°	17°	19°
θ4	11°	13°	15°

Physical Dimensions: MSOP-8

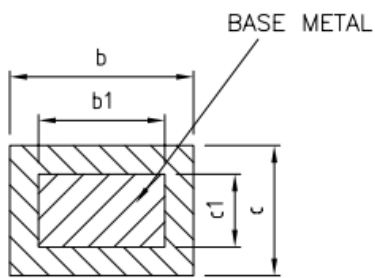
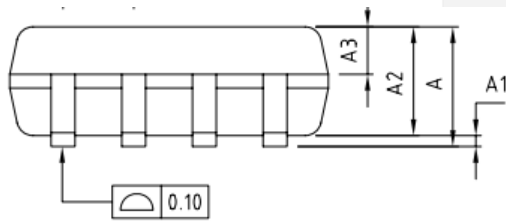
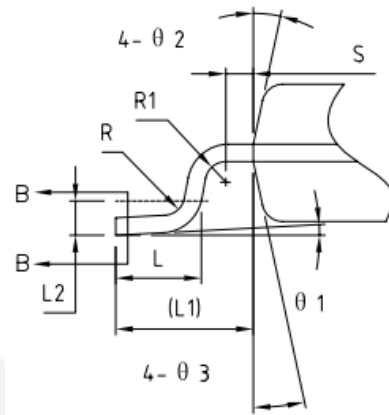
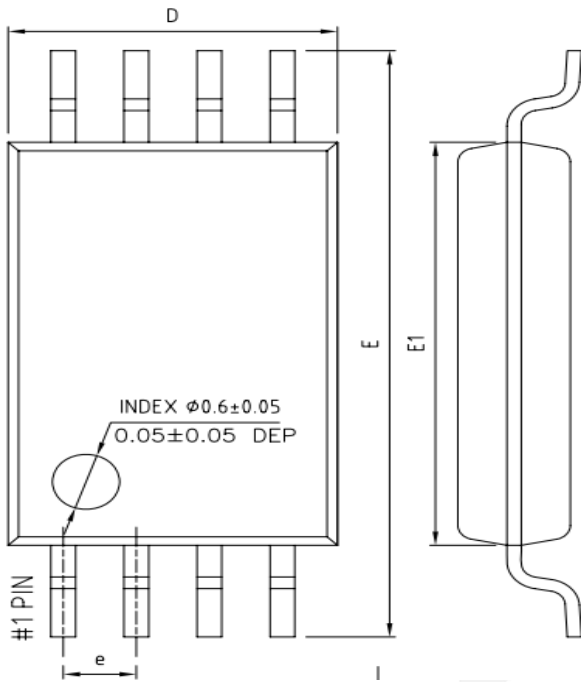


COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	-	-	1.10
A1	0	-	0.15
A2	0.75	0.85	0.95
A3	0.25	0.35	0.39
b	0.28	-	0.37
b1	0.27	0.30	0.33
c	0.15	-	0.20
c1	0.14	0.15	0.16
D	2.90	3.00	3.10
E	4.70	4.90	5.10
E1	2.90	3.00	3.10
e	0.55	0.65	0.75
L	0.45	0.60	0.80
L1	0.95REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
θ	0°	-	8°
θ1	9°	12°	15°

DIO2352

Dual Channel RRIO, $V_{OS} > 0$, 1MHz, CMOS Amplifier

Physical Dimensions: TSSOP-8



SECTION B-B

COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	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	2.83	2.93	3.03
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°

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.

