

# DIO2358

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

### Features

- Rail-to-Rail Input and Output
- 2.7mV Typical offset, two-ch  $V_{OS}>0$
- Unity Gain Stable
- Gain Bandwidth Product: 1MHz
- Very low input bias currents : 9pA
- Wide supply range: 3.0V to 5.5V
- Input Voltage Range:  
-0.1V to +5.6V with  $V+ = 5.5V$
- Ultra low power: 40µA per channel
- Small size packaging best for portable applications, available in SOIC-8 and MSOP-8

### Descriptions

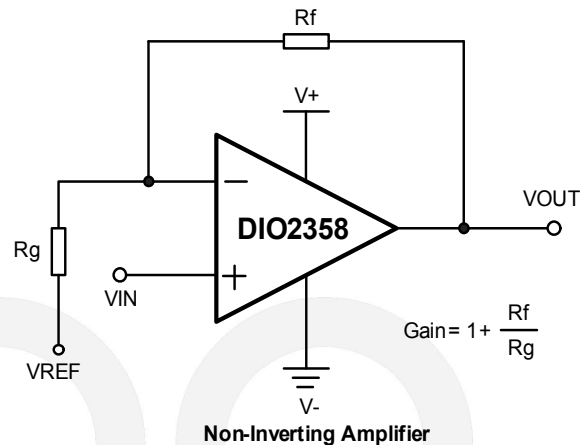
DIO2358 is dual channel rail-to-rail CMOS operational amplifiers with ultra low offset. Features include wide input common-mode voltage range and broad output voltage swing with operating supply voltage from 3.0V to 5.5V. Products are fully specified over the extended  $-40^{\circ}C$  to  $+125^{\circ}C$  temperature range.

DIO2358 provides 1MHz bandwidth consuming ultra low current of 80µA per channel. Very low input bias currents of 9pA enable the DIO2358 ideal for integrators, photodiode amplifiers, and piezoelectric sensors.

### Applications

- ASIC Input or Output Amplifier
- Sensor Interface
- Piezo Electric Transducer Amplifier
- Medical Instrumentation
- Audio Output
- Portable Systems
- Smoke Detectors
- Notebook PC
- Battery-Powered equipment

### Typical Application



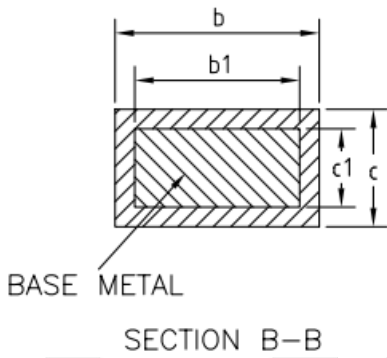
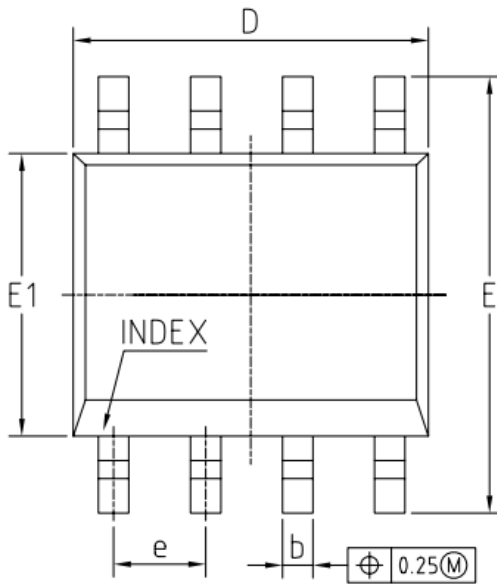
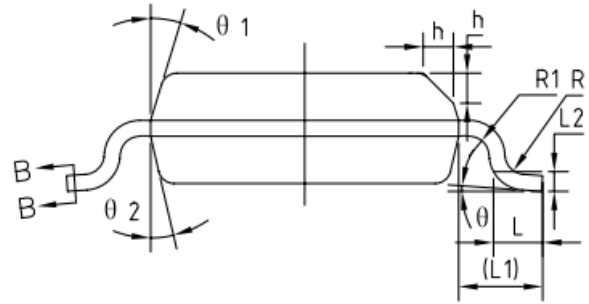
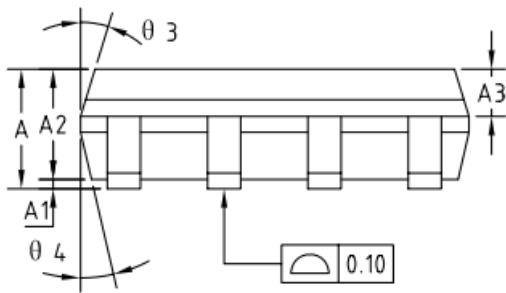
### Ordering Information

Order Part Number	Top Marking		$T_A$	Package	
DIO2358MP8	DIO2358	Green or RoHS	$-40$ to $+125^{\circ}C$	MSOP-8	Tape & Reel, 3000
DIO2358SO8	DIO2358	Green or RoHS	$-40$ to $+125^{\circ}C$	SOIC-8	Tape & Reel, 2500

# DIO2358

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

## Physical Dimensions: SOIC-8

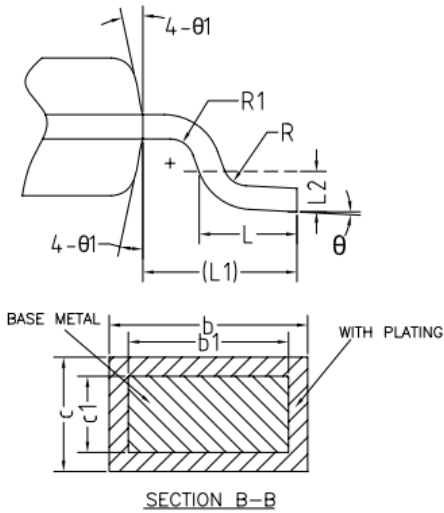
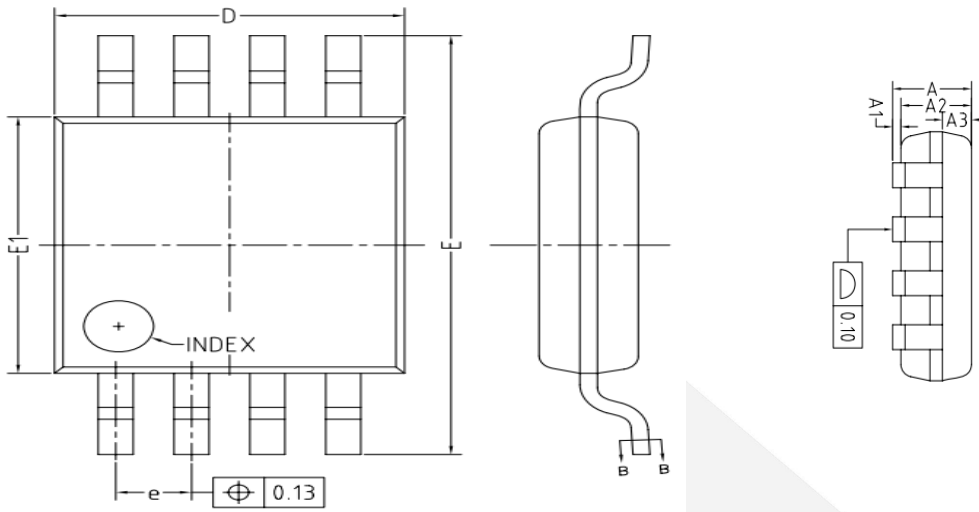


COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	1.35	1.55	1.75
A1	0.10	0.15	0.25
A2	1.25	1.40	1.65
A3	0.50	0.60	0.70
b	0.38	-	0.51
b1	0.37	0.42	0.47
c	0.17	-	0.25
c1	0.17	0.20	0.23
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
L	0.45	0.60	0.80
L1	1.04REF		
L2	0.25BSC		
R	0.07	-	-
R1	0.07	-	-
h	0.30	0.40	0.50
$\theta$	0°	-	8°
$\theta 1$	15°	17°	19°
$\theta 2$	11°	13°	15°
$\theta 3$	15°	17°	19°
$\theta 4$	11°	13°	15°

# DIO2358

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

## 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°

## 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.

