

DIO8358

Dual Channel 1MHz , Rail-to-Rail I/O CMOS Amplifier

Features

- Rail-to-Rail Input and Output
- Channel A $\pm 0.8\text{mV}$ Typical offset, Channel B 4.9mV Typical offset
- Unity Gain Stable
- Gain Bandwidth Product: 1MHz
- Very low input bias currents : 5pA
- Wide supply range: 2.1V to 5.5V
- Input Voltage Range:
- -0.1V to +5.6V with $V+ = 5.5\text{V}$
- Ultra low power: 50 μA per channel
- Small size packaging best for portable applications, available in SOIC-8 and MSOP-8

Descriptions

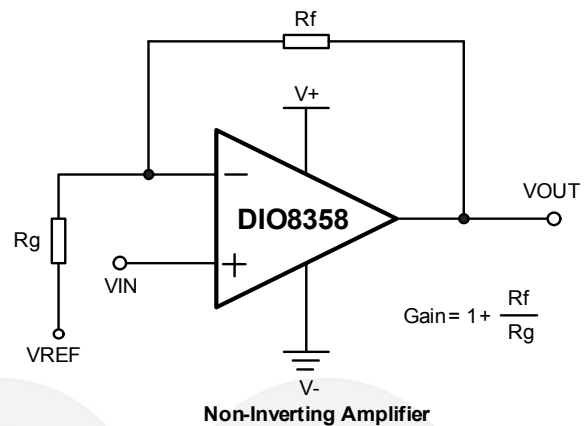
DIO8358 is dual channel rail-to-rail CMOS operational amplifiers with ultra low offset. Features include wide input common-mode voltage range and broad output voltage swing with operating supply voltage from 2.1V to 5.5V. Products are fully specified over the extended -40°C to $+125^{\circ}\text{C}$ temperature range.

DIO8358 provides 1MHz bandwidth consuming ultra low current of 40 μA per channel. Very low input bias currents of 5pA enable the DIO8358 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



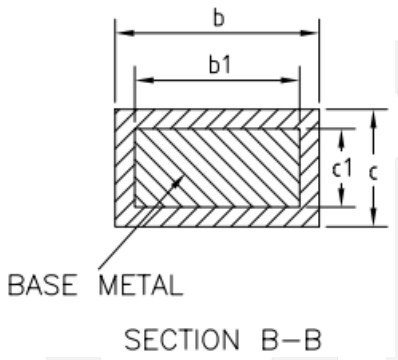
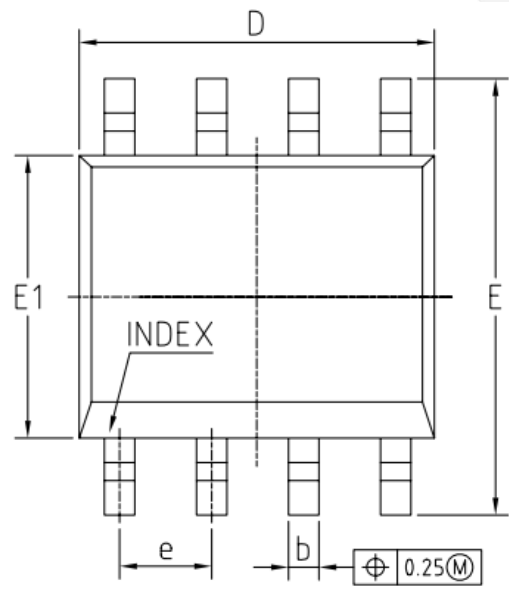
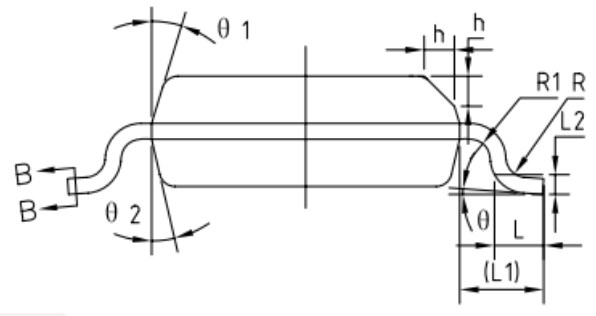
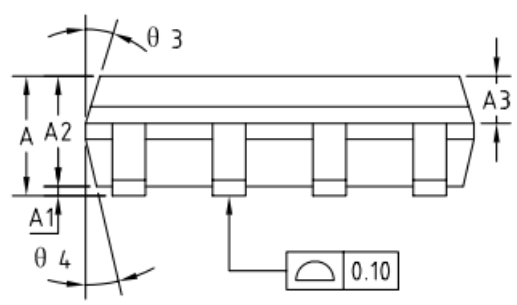
Ordering Information

Order Part Number	Top Marking		T_A		Package
DIO8358MP8	DIO8358	Green or RoHS	-40 to $+125^{\circ}\text{C}$	MSOP-8	Tape & Reel, 3000
DIO8358SO8	DIO8358	Green or RoHS	-40 to $+125^{\circ}\text{C}$	SOIC-8	Tape & Reel, 2500

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Physical Dimensions: SOIC-8

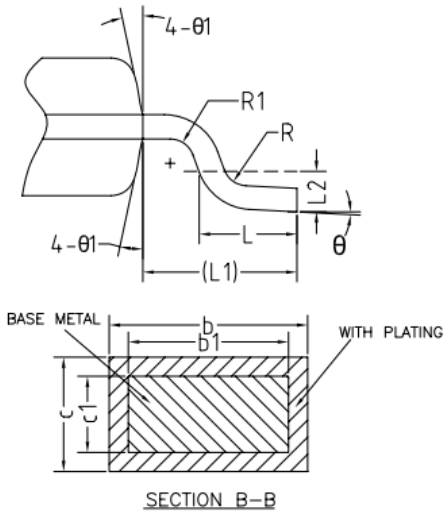
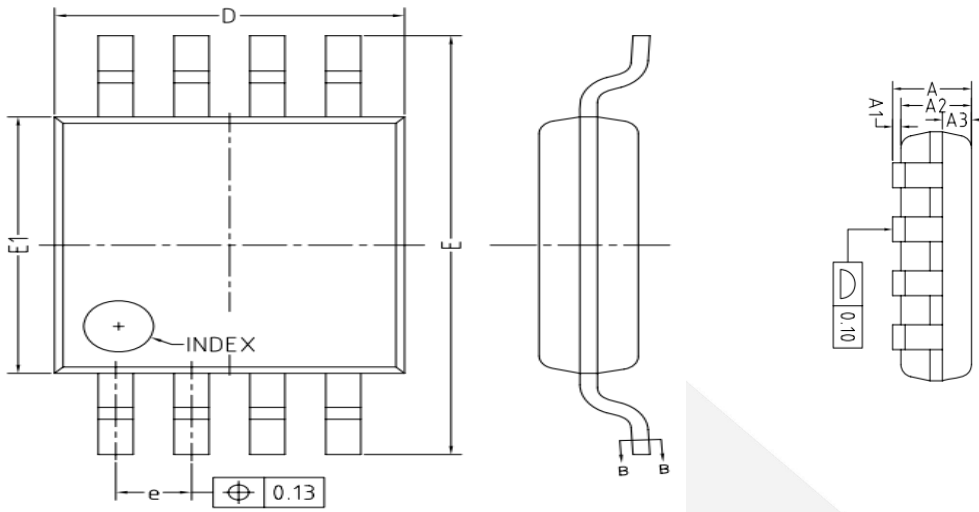


COMMON DIMENSIONS (UNITS OF MEASURE=MILLIMETER)			
Symbol	MIN	NOM	MAX
A	1.35	1.55	1.75
A1	0.10	0.15	0.25
A2	1.25	1.40	1.65
A3	0.50	0.60	0.70
b	0.38	-	0.51
b1	0.37	0.42	0.47
c	0.17	-	0.25
c1	0.17	0.20	0.23
D	4.80	4.90	5.00
E	5.80	6.00	6.20
E1	3.80	3.90	4.00
e	1.27BSC		
L	0.45	0.60	0.80
L1	1.04REF		
L2	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°

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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°