

## General Description

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The LTC8701E is an ultra low-power comparator with a typical power supply current of 0.4 $\mu$ A at 1.8V power supply. It has the best-in-class power supply current versus propagation delay performance. The propagation delay is as low as 5 $\mu$ s with 100mV overdrive at 1.8V power supply.

Designed and guaranteed to operate over a wide range of supply voltages, from 1.4V to 5.5V, the LTC8701E is ideal for use in a variety of battery powered applications. With rail-to-rail common-mode voltage range, the LTC8701E is well suited for single-supply or dual-supply operation. Featuring a push-pull output stage, the LTC8701E allows for operation with absolute minimum power consumption when driving any capacitive or resistive load.

LTC8701E is available in the Green DFN0.8x0.8-4L package. The LTC8701E is ideal for use in handheld electronics and mobile phone applications. It is rated over the -40°C to +85°C temperature range.

## Features and Benefits

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- Wide Supply Voltage Range: 1.4 V to 5.5 V
- Rail to Rail input
- Propagation Delay: 5  $\mu$ s (typ) at  $V_S=1.8$  V
- Operation Temperature Voltage: -40°C to +85°C
- Available in small DFN0.8x0.8 package

## Applications

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- Mobile Phone
- RC Timers
- Window Detectors
- IR Receiver
- Multi-vibrators
- Alarm and Monitoring Circuits

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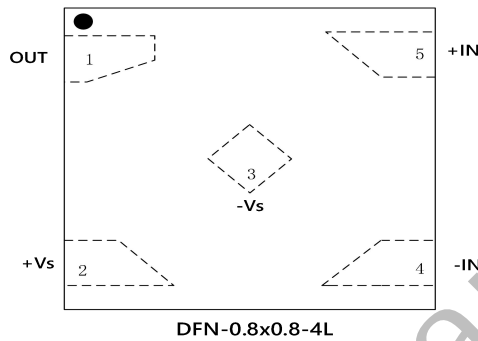
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Ordering Information<sup>(1)</sup>

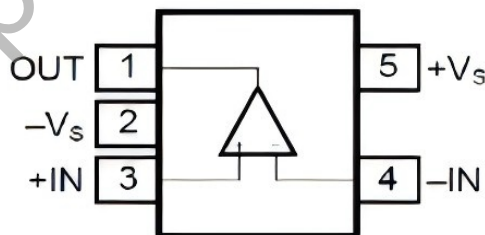
Part Number	Package Type	Package Quantity	ECO Class <sup>(2)</sup>	Mark Code <sup>(3)</sup>
LTC8701EYF4/R20	DFN0.8×0.8-4L	Tape and Reel, 10000	Green (RoHS & no Sb/Br)	CA
LTC8701EYT5/R6	SOT23-5L	Tape and Reel, 3 000	Green (RoHS & no Sb/Br)	CA
LTC8701EYC5/R6	SC70-5L	Tape and Reel, 3 000	Green (RoHS & no Sb/Br)	CA

Pin Configuration (Top View)



PIN Name	DFN-0.8×0.8	Description
OUT	1	Output
+Vs	2	Positive supply
-Vs	3	Negative supply
-IN	4	Negative Input
+IN	5	Positive Input

SOT23-5L / SC70-5L

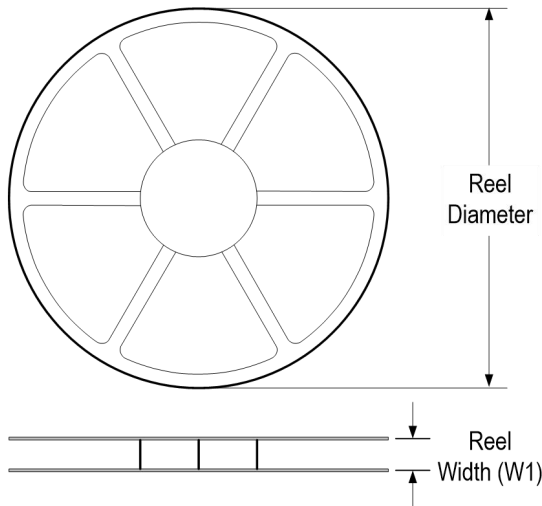


PIN Name	DFN-0.8×0.8	Description
OUT	1	Output
-Vs	2	Negative supply
+IN	3	Positive Input
-IN	4	Negative Input
+Vs	5	Positive supply

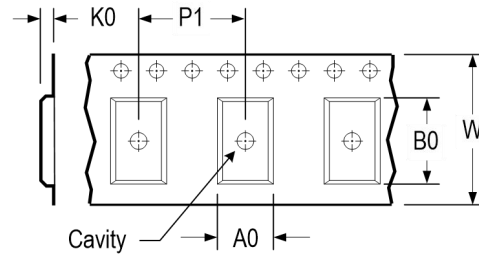
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Tape and Reel Information

REEL DIMENSIONS

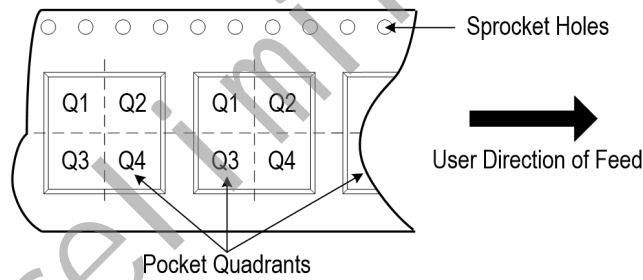


TAPE DIMENSIONS



A0	Dimension designed to accommodate the component width
B0	Dimension designed to accommodate the component length
K0	Dimension designed to accommodate the component thickness
W	Overall width of the carrier tape
P1	Pitch between successive cavity centers

QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE

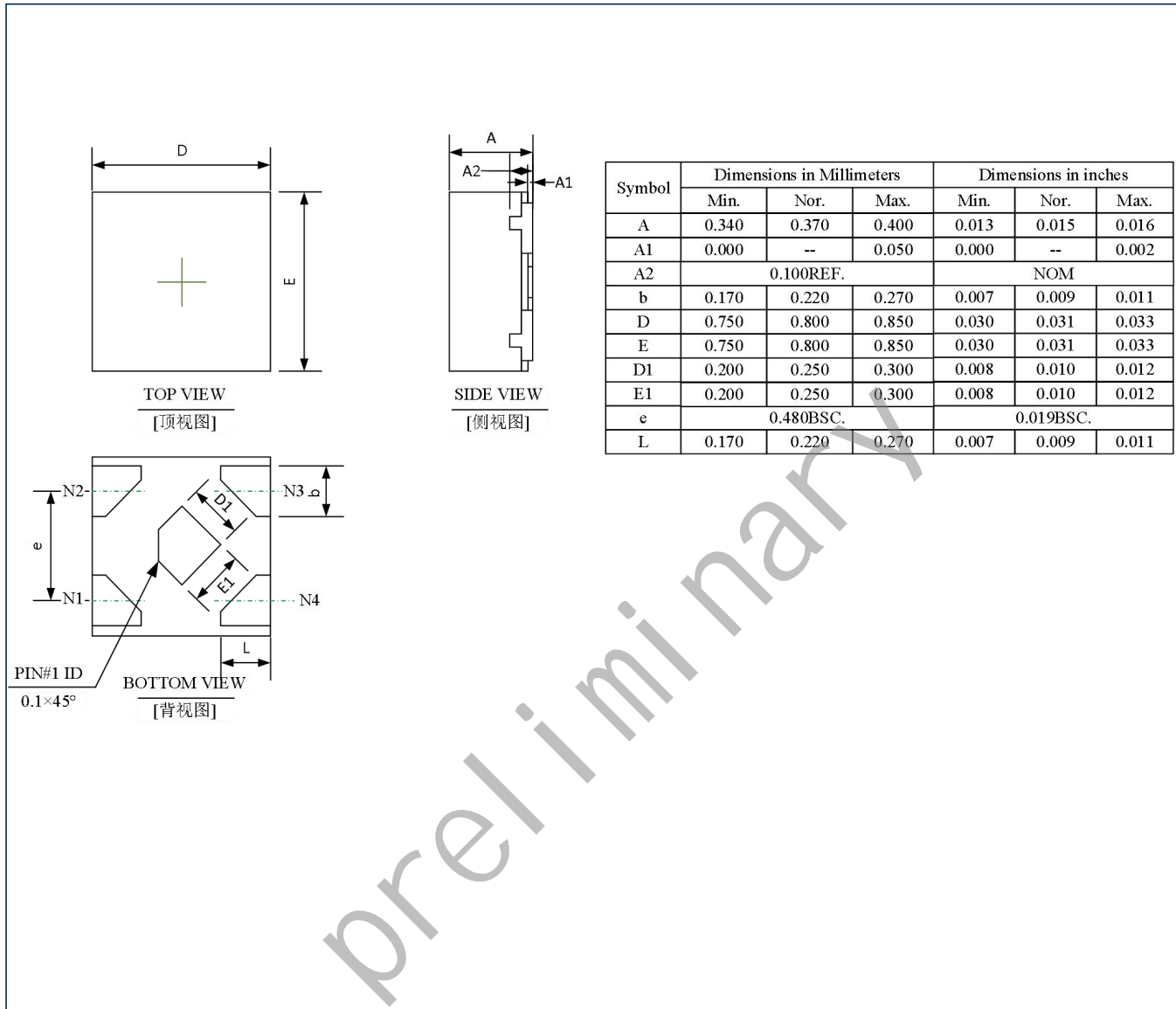


\* All dimensions are nominal

Device	Package Type	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin 1 Quadrant
LTC8701EYF4/R20	DFN0.8×0.8	4	10 000	178	9.0	1.1	1.1	0.5	2.0	8.0	Q1
LTC8701EYT5/R6	SOT23	5	3 000	178	9.0	3.3	3.2	1.5	4.0	8.0	Q3
LTC8701EYC5/R6	SC70	5	3 000	178	9.0	3.3	3.2	1.5	4.0	8.0	Q3

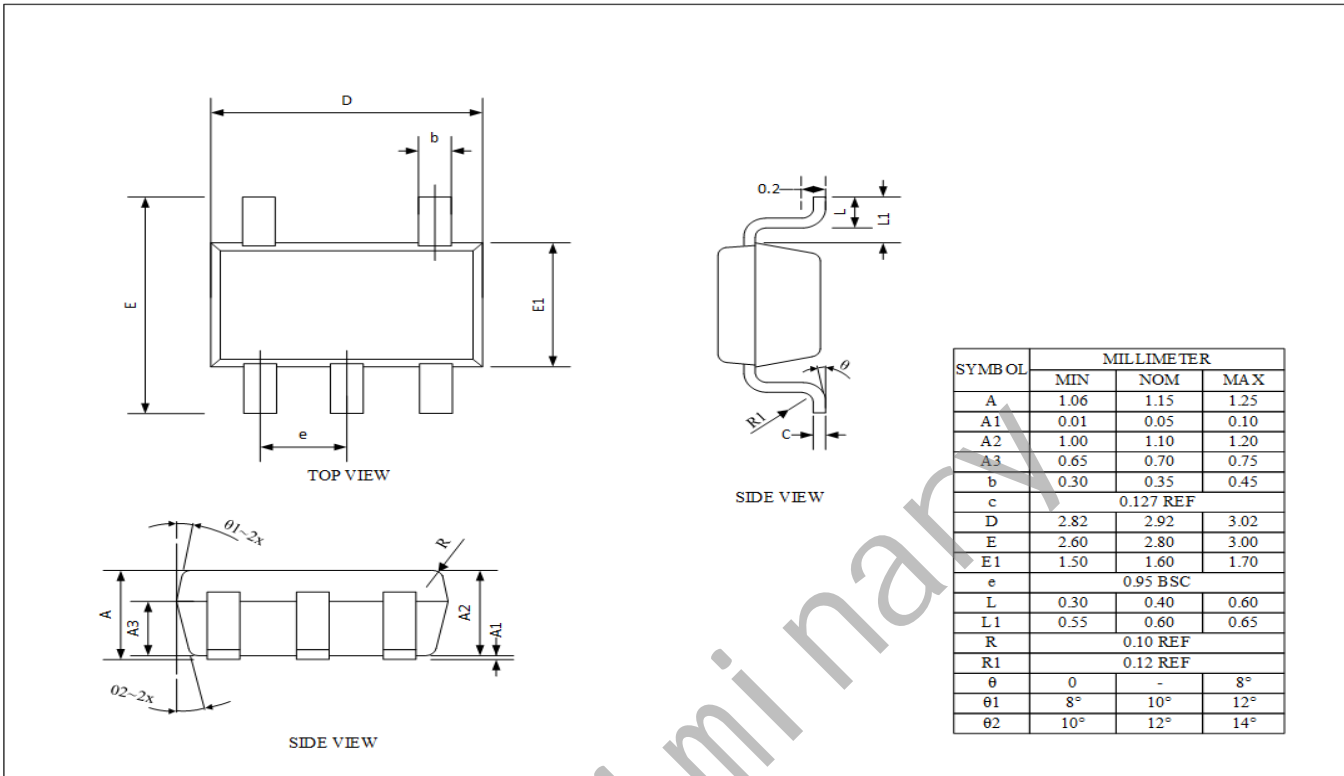
## Package Outlines

## DIMENSIONS, DFN0.8×0.8-4L



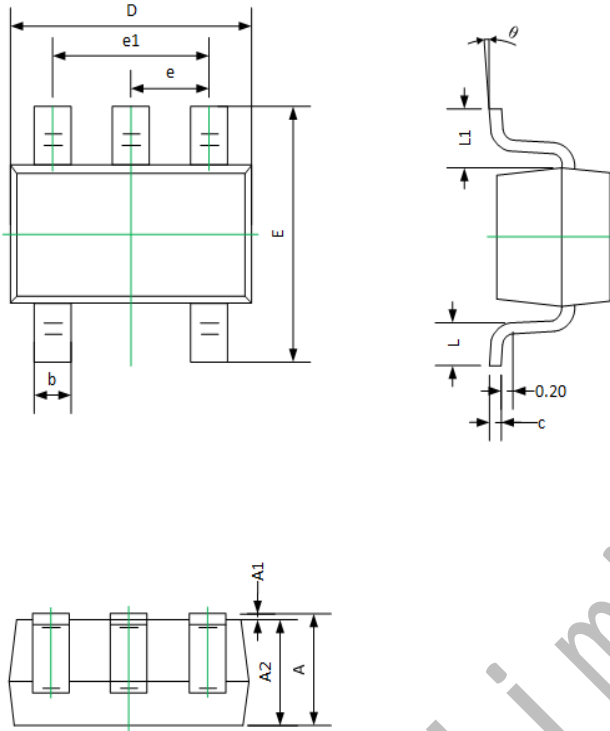
Package Outlines

DIMENSIONS, SOT23-5L



## Package Outlines

DIMENSIONS, SOC70-5L



Symbol	Dimensions in Millimeters		Dimensions in inches	
	Min.	Max.	Min.	Max.
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.110	0.175	0.004	0.007
D	2.000	2.200	0.079	0.087
E	2.150	2.450	0.085	0.096
E1	1.150	1.350	0.045	0.053
e	0.650 TYP.		0.026 BSC.	
e1	1.200	1.400	0.047	0.055
L	0.260	0.460	0.010	0.018
L1	0.525 REF.		0.021 REF.	
θ	0°	8°	0°	8°

## Important Notice

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Linearin is a global fabless semiconductor company specializing in advanced high-performance high-quality analog/mixed-signal IC products and sensor solutions. The company is devoted to the innovation of high performance, analog-intensive sensor front-end products and modular sensor solutions, applied in multi-market of medical & wearable devices, smart home, sensing of IoT, intelligent industrial & smart factory (industrie 4.0), and automotives. Linearin's product families include widely-used standard catalog products, solution-based application specific standard products (ASSPs) and sensor modules that help customers achieve faster time-to-market products. Go to <http://www.linearin.com> for a complete list of Linearin product families.

For additional product information, or full datasheet, please contact with the Linearin's Sales Department or Representatives.

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