

General Description

The LTP751L series of CMOS low dropout regulators are designed specifically for portable battery-powered applications which require ultra-low quiescent current. The ultra-low consumption of type 0.6uA ensures long battery life and dynamic transient boost feature improves device transient response for wireless communication applications.

The LTP751L series are available in SOT89-3L, SOT23-5L and DFN1×1-4L packages.

Features and Benefits

- Input Voltage: 2.2V ~ 5.5V
- Output Voltage Range: 1.1V to 3.6V
- Ultra-Low Quiescent Current: 0.6uA(typ)
- Low Dropout: 240mV(typ)@ $I_{out}=150mA$, $V_{out}=1.8V$
- High Output Voltage Accuracy: $\pm 1\%$ (typ)
- Stable with Ceramic Capacitors 1uF
- Build-in Over-Current Protection
- Build-in Thermal Shutdown Protection

Applications

- Battery-powered equipment
- Reference voltage sources
- Cameras, video cameras
- Portable AV systems
- Mobile phones
- Portable games

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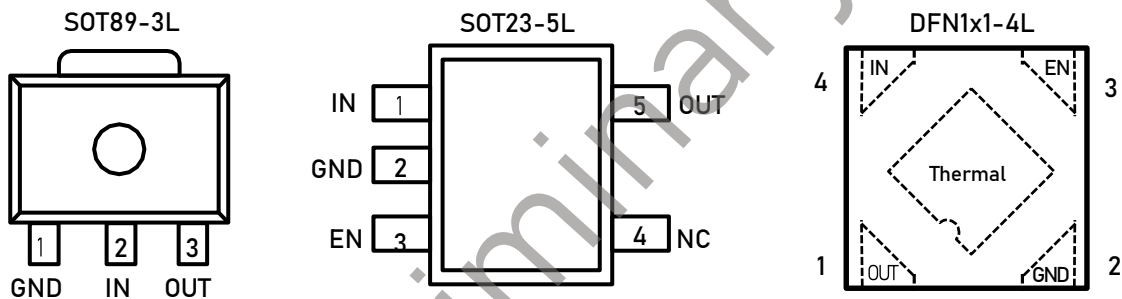
Preliminary

Ordering Information

Model ^{Note1}	Package	Ordering Number ^{Note1}	Packing Option
LTP751L	SOT89-3L	LTP751L-xxXT4	Tape and Reel, 1 000
	SOT23-5L	LTP751L-xxNXT5	Tape and Reel, 3 000
	DFN1x1-4L	LTP751L-xxNXF4	Tape and Reel, 10 000

* Note1: xx stands for output voltage, e.g. if xx = 18, the output voltage is 1.8V; if xx = 30, the output voltage is 3.0V. The device with suffix "N" is shut down version with enable control input.

Pin Description (Top View)



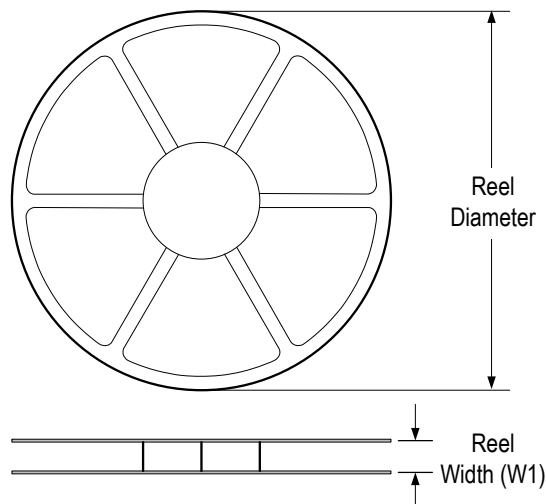
Pin Function

Package			Symbol	Function
SOT23-5L	SOT89-3L	DFN1x1-4L		
2	1	2	GND	Ground.
1	2	4	IN	Supply input pin.
5	3	1	OUT	Output Pin.
3	/	3	EN ^{Note2}	Enable control input.
4	/	/	NC	No Connection.
/	/	Thermal Pad	EPAD	Should be connected directly to the GND pin.

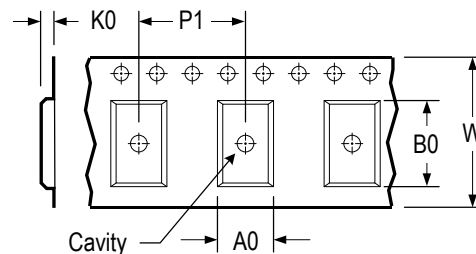
*Note2: Enable Control Input, Active High, floating is not suggested.

Tape and Reel Information

REEL DIMENSIONS

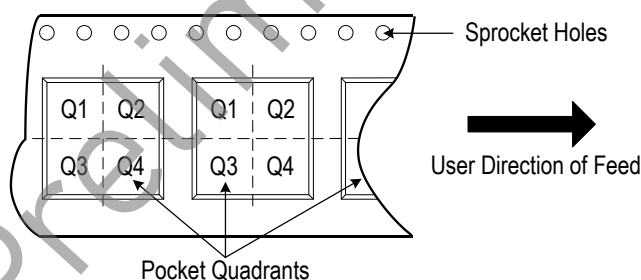


TAPE DIMENSIONS



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

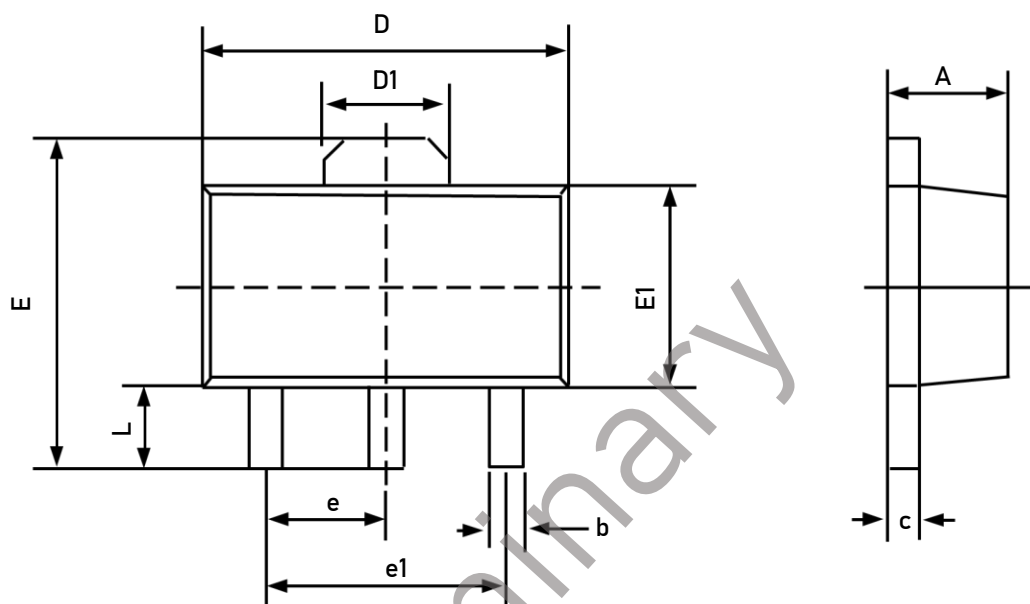


* All dimensions are nominal

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
LTP751L-xxXT4	SOT89	3	1 000	178	12.0	4.9	4.5	1.85	8.0	12.0	Q3
LTP751-xxNXT5	SOT23	5	3 000	178	9.0	3.3	3.2	1.5	4.0	8.0	Q3
LTP751L-xxNXF4	DFN1x1	4	10 000	178	9.0	1.15	1.12	0.55	2.0	8.0	Q1

Package Dimension

SOT89-3L

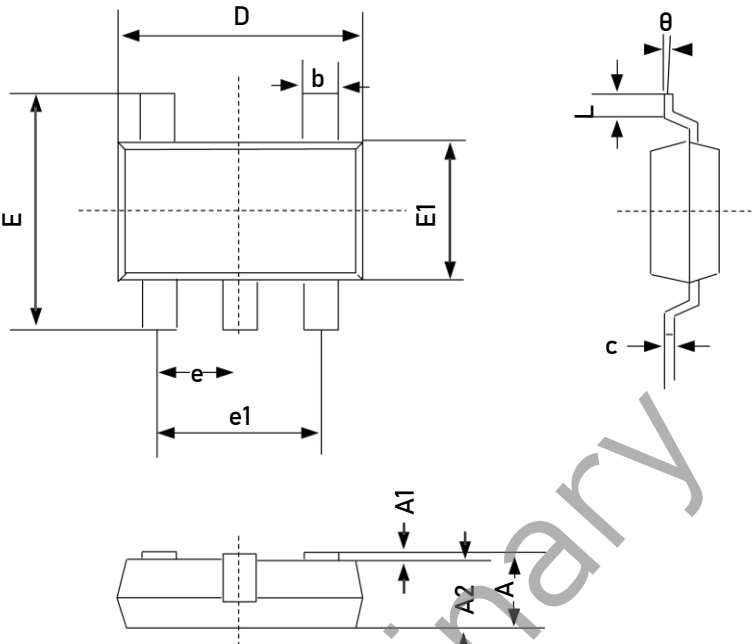


Unit: mm

Symbol	Dimensions In Millimeters	
	Min	Max
A	1.400	1.600
b	0.320	0.520
c	0.350	0.440
D	4.400	4.600
D1	1.550REF	
E	3.940	4.250
E1	2.300	2.600
e	1.500BSC	
e1	3.000BSC	
L	0.900	1.200

Package Dimension

SOT23-5L

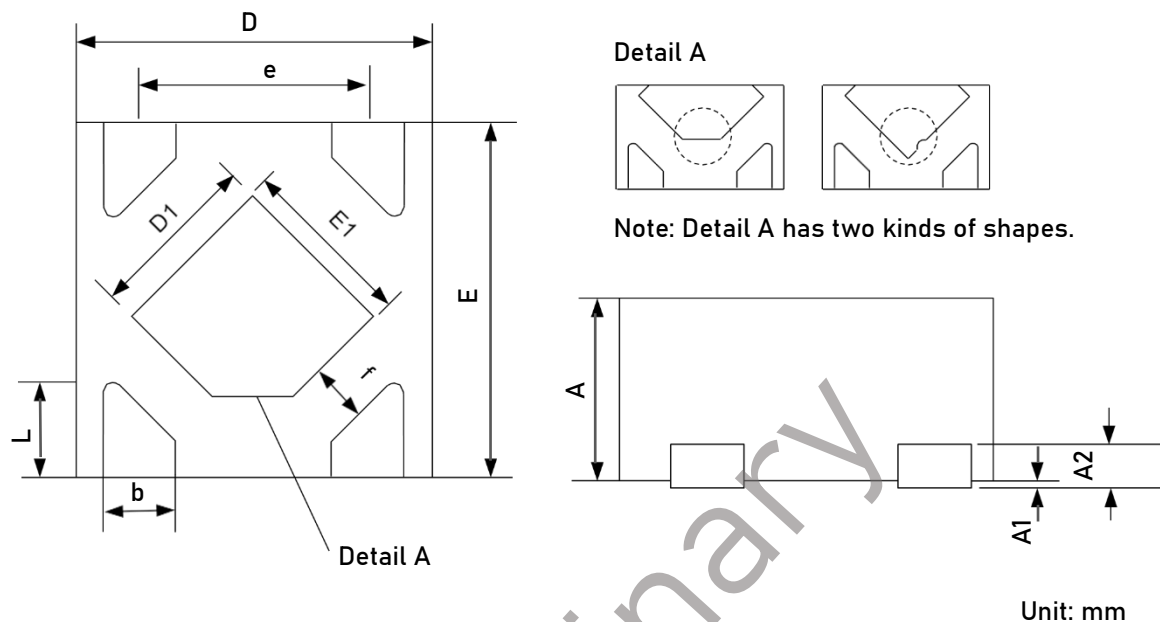


Unit: mm

Symbol	Dimensions In Millimeters	
	MIN	MAX
A	0.700	1.250
A1	0.000	0.100
A2	1.050	1.150
b	0.350	0.500
c	0.080	0.200
D	2.820	3.020
E	2.650	2.950
E1	1.600	1.700
e	0.950BSC	
E1	1.800	2.000
L	0.300	0.600
Θ	0°	8°

Package Dimension

DFN1x1-4L



Symbol	Dimensions In Millimeters		
	MIN	MOD	MAX
A	0.340	0.370	0.400
A1	0.000	0.020	0.050
A2	0.100REF		
D	0.950	1.000	1.050
D1	0.430	0.480	0.530
E	0.950	1.000	1.050
E1	0.430	0.480	0.530
b	0.170	0.220	0.270
e	0.650BSC		
f	0.190	0.195	0.200
L	0.200	0.250	0.300

Important Notice

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, and intelligent industrial & smart factory (industrial 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.

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