

LDO Regulator - 400 mA, Best-in-Class Dropout, with Bias Rail

Product Preview T30LMPSR132, T30LAPSR132

The T30LxPSR132 is an ultra-fast, 400 mA bias rail LDO with market-leading dropout voltage (**20 mV @ full load**). Due to its advanced CMOS process, the T30LxPSR132 offers ultra-fast dynamic response and provides very stable output voltage with 1% accuracy over full temperature range. The device also features high PSRR across frequency range and ultra-low noise optimized for noise sensitive applications. The T30LxPSR132 very low bias current makes the device suitable for battery powered applications. The minimum recommended output capacitance (1 x 2.2 μ F) and the low profile, WLCSP6 0.99 mm x 0.65 mm, 0.35P Chip Scale package is ideal for space-constrained applications.

Features

- Best-in-Class Dropout: 20 mV (typ.) at 400 mA
- $\pm 1\%$ Accuracy over -40°C to 125°C Temp. Range
- High PSRR across Frequency Range
 - ◆ 75 dB at 1 kHz
 - ◆ 38 dB at 100 kHz
- Very Low Bias Input Current of Typ. 85 μ A
- Ultra Low Noise, 7.5 μV_{RMS} Typ.
- Excellent Load Transient Performance
- Input Voltage Range: up to 2.2 V
- Bias Voltage Range: up to 3.3 V
- Output Voltage Range: 0.5 V to 1.8 V (Fixed), Resolution 25 mV
- 1.2 V Logic Level Enable Input Compatibility

Typical Applications

- Battery-powered Equipment
- Smartphones, Tablets
- Cameras, DVRs, STB and Camcorders

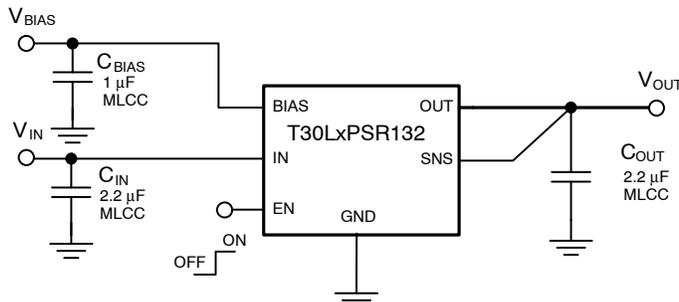


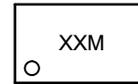
Figure 1. Typical Application Schematics

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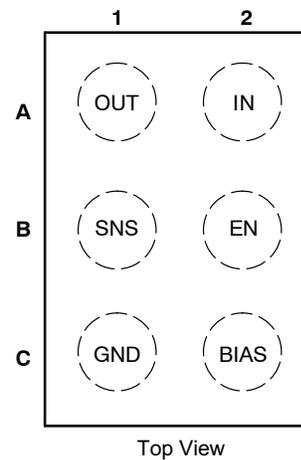
WLCSP6 0.99x0.65x0.29
CASE 567ZT

MARKING DIAGRAM



XX = Specific Device Code
M = Month Code

PIN CONNECTIONS



ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

T30LMPSR132, T30LAPSR132

ORDERING INFORMATION

Device	Output Voltage	Marking	Option	Package	Shipping [†]
T30LMPSR132	TBD V	TBD	TBD	WLCSP6 Case 567ZT (Pb-Free) UBM: 210 µm Bump Type: (98.2% Sn/1.8% Ag) Plate	10,000 / Tape & Reel
T30LAPSR132	TBD V	TBD			

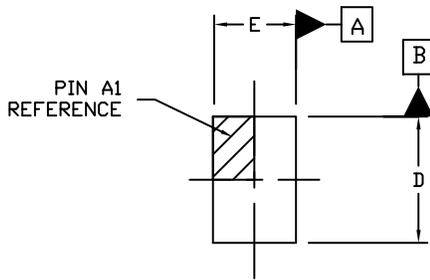
[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, [BFD8011/D](#).

1. To order other package and voltage variants, please contact your **onsemi** sales representative.

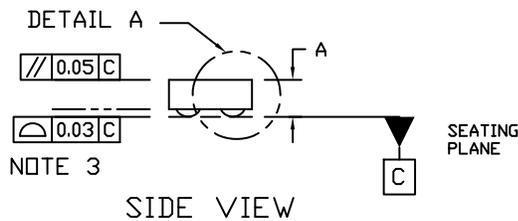
T30LMPSR132, T30LAPSR132

PACKAGE DIMENSIONS

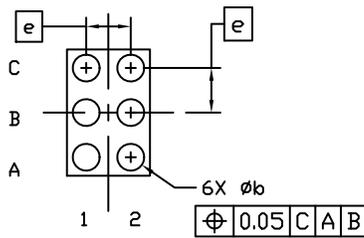
WLCSP6 0.99x0.65x0.29
CASE 567ZT
ISSUE B



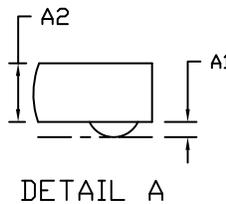
TOP VIEW



SIDE VIEW

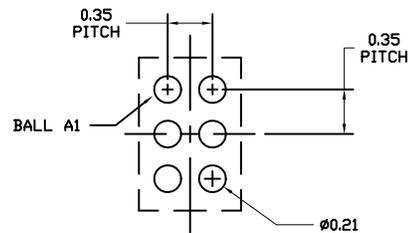


BOTTOM VIEW



DETAIL A

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	0.250	0.290	0.330
A1	0.040	0.060	0.080
A2	0.23 REF		
b	0.180	0.210	0.240
D	0.940	0.990	1.040
E	0.600	0.650	0.700
e	0.35 BSC		



RECOMMENDED MOUNTING FOOTPRINT*

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2009.
2. CONTROLLING DIMENSION: MILLIMETERS
3. DATUM C AND SEATING PLANE ARE DEFINED BY THE SPHERICAL CROWNS OF THE SOLDER BALLS.
4. COPLANARITY APPLIES TO THE SPHERICAL CROWNS OF THE SOLDER BALLS.
5. DIMENSION b IS MEASURED AT THE MAXIMUM BALL DIAMETER, PARALLEL TO DATUM C.

*For additional information on our Pb-Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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