

**LM236-2.5, LM336-2.5, LM336B-2.5  
2.5-V INTEGRATED REFERENCE CIRCUITS**

SLVS063E – NOVEMBER 1988 – REVISED OCTOBER 2003

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**LM236-2.5, LM336-2.5, LM336B-2.5  
2.5-V INTEGRATED REFERENCE CIRCUIT**

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**LM236-2.5, LM336-2.5, LM336B-2.5**  
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# LM236-2.5, LM336-2.5, LM336B-2.5 2.5-V INTEGRATED REFERENCE CIRCUITS

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**LM236-2.5, LM336-2.5, LM336B-2.5  
2.5-V INTEGRATED REFERENCE CIRCUITS**

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Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead/Ball Finish	MSL Peak Temp (3)	Op Temp (°C)	Top-Side Markings (4)	Samples
LM336D-2-5	ACTIVE	SOIC	D	8	75	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336DE4-2-5	ACTIVE	SOIC	D	8	75	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336DG4-2-5	ACTIVE	SOIC	D	8	75	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336DR-2-5	ACTIVE	SOIC	D	8	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336DRE4-2-5	ACTIVE	SOIC	D	8	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336DRG4-2-5	ACTIVE	SOIC	D	8	2500	Green (RoHS & no Sb/Br)	CU NIPDAU	Level-1-260C-UNLIM	0 to 70	336-25	<a href="#">Samples</a>
LM336LP-2-5	ACTIVE	TO-92	LP	3	1000	Pb-Free (RoHS)	CU SN	N / A for Pkg Type	0 to 70	336-25	<a href="#">Samples</a>
LM336LPE3-2-5	ACTIVE	TO-92	LP	3	1000	Pb-Free (RoHS)	CU SN	N / A for Pkg Type	0 to 70	336-25	<a href="#">Samples</a>
LM336LPR-2-5	ACTIVE	TO-92	LP	3	2000	Pb-Free (RoHS)	CU SN	N / A for Pkg Type	0 to 70	336-25	<a href="#">Samples</a>
LM336LPRE3-2-5	ACTIVE	TO-92	LP	3	2000	Pb-Free (RoHS)	CU SN	N / A for Pkg Type	0 to 70	336-25	<a href="#">Samples</a>

(1) The marketing status values are defined as follows:

**ACTIVE:** Product device recommended for new designs.

**LIFEBUY:** TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

**NRND:** Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

**PREVIEW:** Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

(2) Eco Plan - The planned eco-friendly classification: Pb-Free (RoHS), Pb-Free (RoHS Exempt), or Green (RoHS & no Sb/Br) - please check <http://www.ti.com/productcontent> for the latest availability information and additional product content details.

**TBD:** The Pb-Free/Green conversion plan has not been defined.

**Pb-Free (RoHS):** TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances, including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.

**Pb-Free (RoHS Exempt):** This component has a RoHS exemption for either 1) lead-based flip-chip solder bumps used between the die and package, or 2) lead-based die adhesive used between the die and leadframe. The component is otherwise considered Pb-Free (RoHS compatible) as defined above.

**Green (RoHS & no Sb/Br):** TI defines "Green" to mean Pb-Free (RoHS compatible), and free of Bromine (Br) and Antimony (Sb) based flame retardants (Br or Sb do not exceed 0.1% by weight in homogeneous material)



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<sup>(3)</sup> MSL, Peak Temp. -- The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

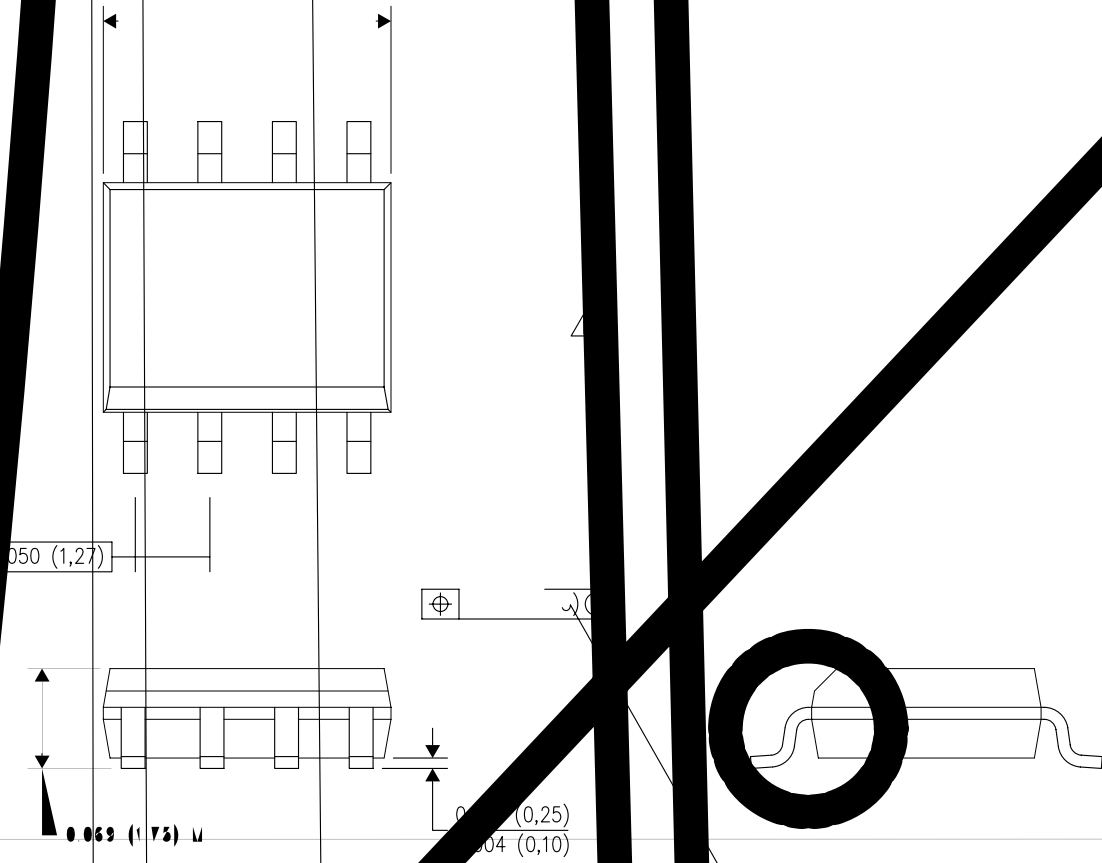
<sup>(4)</sup> Only one of markings shown within the brackets will appear on the physical device.

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MECHANICAL DATA



This drawing



E. P.

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Example  
Pad Geometry  
(See Note C)

Example  
Solder Mask Opening  
(See Note E)

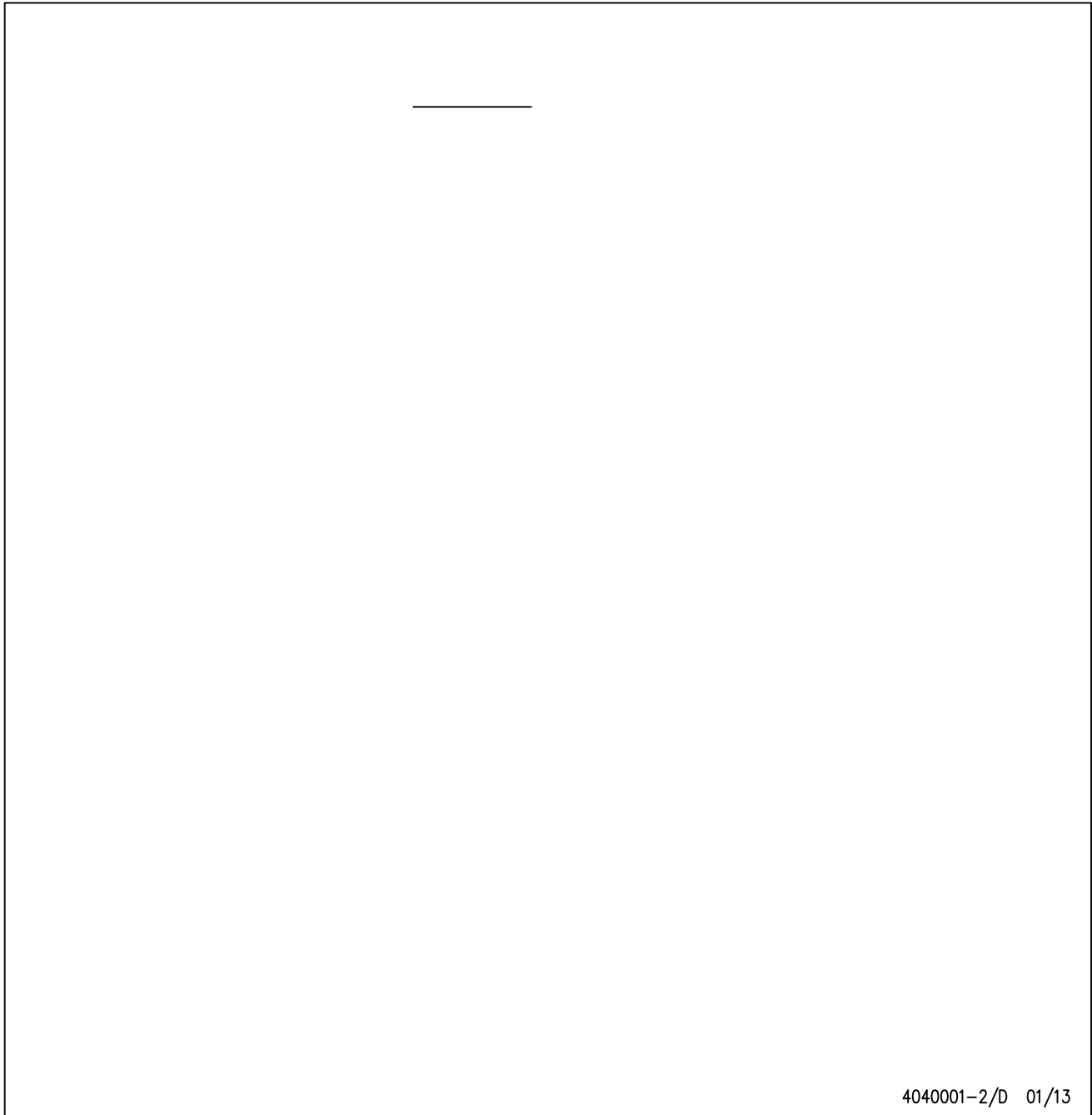
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C. Publication IPC-7351 is recommended for alternate designs.

C

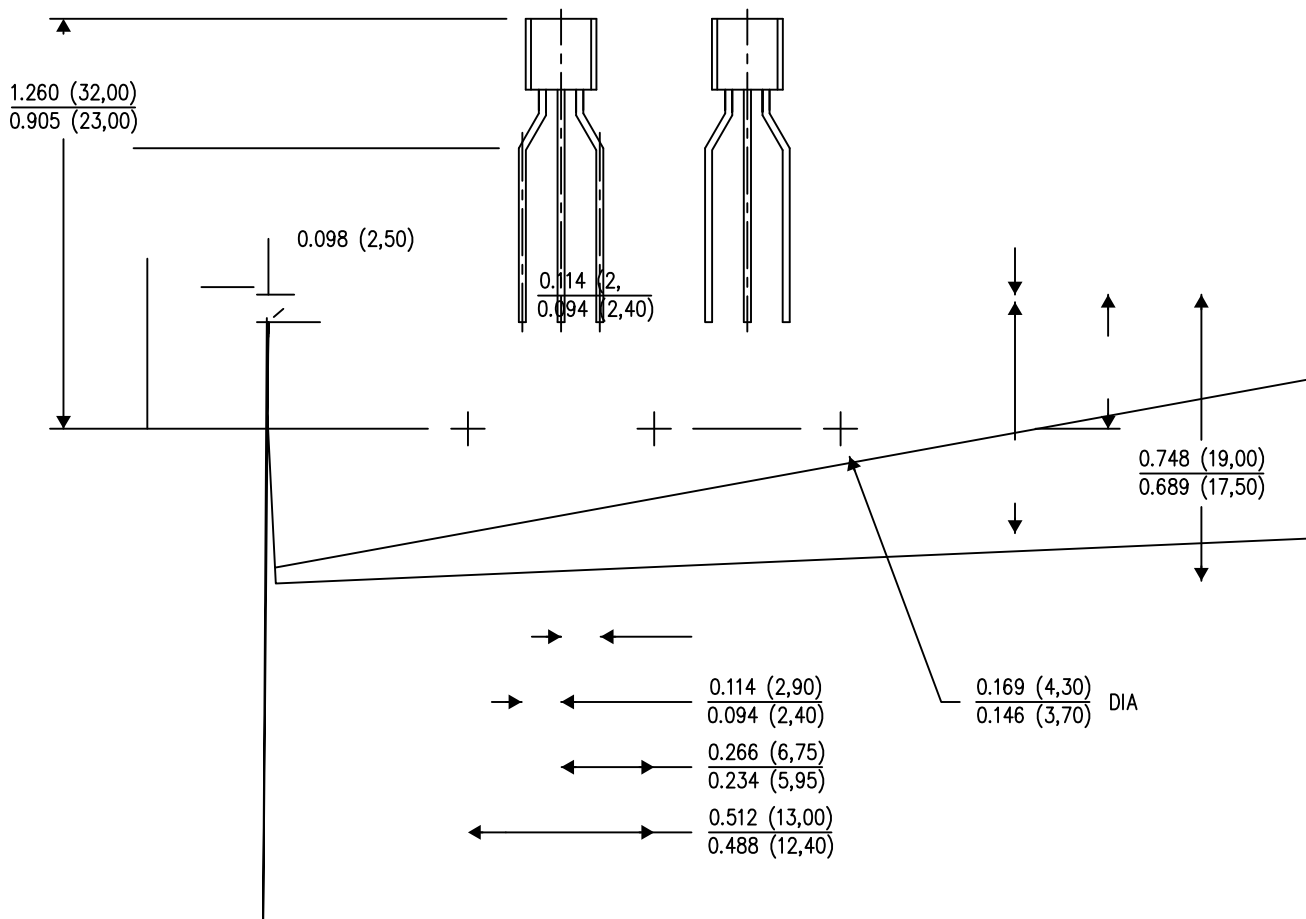
~~Contact their board assembly site for stencil design recommendations. Refer to IPC-7585 for other details.~~  
E. Customers should contact their board fabrication site for solder mask tolerances between and around signal pads.

# PLASTIC CYLINDRICAL PART



4040001-2/D 01/13

- NOTES:
- A. All linear dimensions are in inches (millimeters).
  - C. Lead dimensions are not controlled within this area.
  - D. Falls within JEDEC TO-226 Variation AA (TO-226 replaces TO-92).



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C. Tape and Reel information for the Formed Lead Option package.

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