

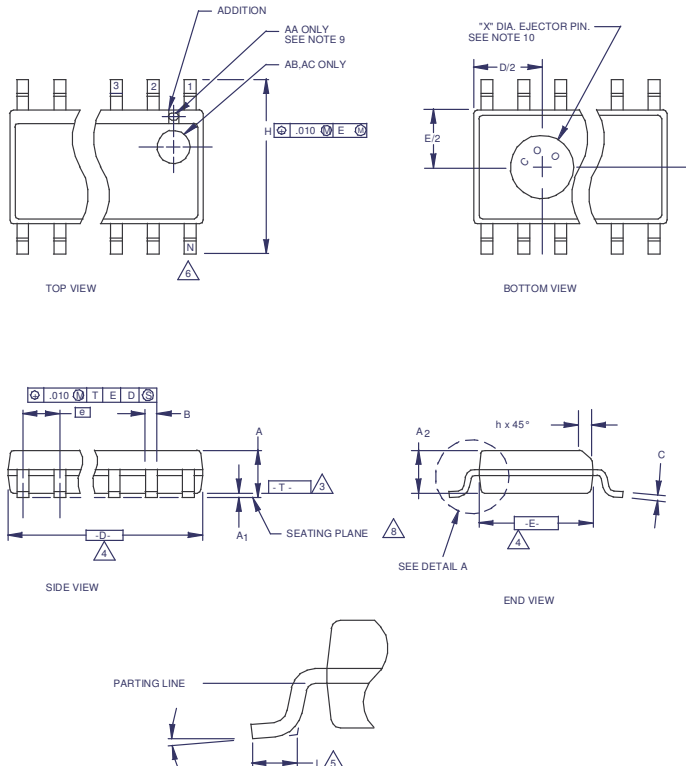


TSic™ Die and Package Specifications for TSic™ Temperature Sensor IC

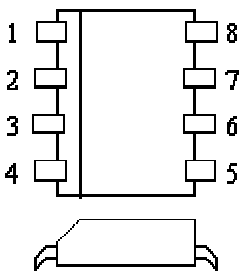
Technical Notes

1 TSic™ Series SOP-8 Package Dimensions

The following dimensional drawings are for the TSic™ Series SOP-8 (SOIC Narrow, 0.150) package. See **Table 1.1** and **Table 1.2** on the next page for the dimensions labeled in these diagrams. Unless specified otherwise, dimensions are in inches.



SOP-8 Pin Assignment



Pin	Name	Description
1	V+	Supply voltage (3.0-5.5V)
2	Signal	Temperature output signal
4	Gnd	Ground
3, 5-8	TP/NC	Test pin / NC Do not connect

NOTES:

- Maximum thickness allowed is 0.015.
- Dimensioning and tolerances:

Decimal	Angular	3 rd Angle Projection
.xx ± 0.01"	±1°	
.xxx ± 0.002"		
.xxxx ± 0.0010"		
- "T" is a reference datum.
- "D" & "E" are reference datums and do not include mold flash or protrusions but do include mold mismatch and are measured at the mold parting line. Mold flash and protrusions do not exceed 0.006 inches at the end and 0.01 inches at the window.
- "L" is the length of the terminal for soldering to a substrate.
- "N" is the number of terminal positions.
- Terminal positions are shown for reference only.
- Formed leads are planar with respect to one another within 0.03 inches at the seating plane.
- The appearance of the pin 1 marker is optionally either the round type or the rectangular type.
- Country of origin location on package bottom is optional and depends on assembly location.
- Controlling dimension: Inches.
- This part is compliant with JEDEC Standard MS-012, Variation AA, AB & AC.



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TSic™ Series SOP-8 Package Dimensions (Continued)

Table 1.1 – TSic™ SOP-8 Package Dimensions - Inches

	Common Dimensions			Note	Note Variations	3			S N
	MIN	NOM	MAX			D			
						MIN	NOM	MAX	
A	0.061	0.064	0.068		AA	0.189	0.194	0.196	8
A1	0.004	0.006	0.0098		AB	0.337	0.342	0.344	14
A2	0.055	0.058	0.061		AC	0.386	0.391	0.393	16
B	0.0138	0.016	0.0192						
C	0.0075	0.008	0.0098						
D	See variations.			3					
E	0.15	0.155	0.0157						
e	0.050 BSC								
H	0.23	0.236	0.244						
h	0.01	0.013	0.016						
L	0.016	0.25	0.035						
N	See variations.			5					
	0°	5°	8°						
X	0.085	0.093	0.1						

Table 1.2 – TSic™ SOP-8 Package Dimensions – Millimeters

	Common Dimensions			Note	Note Variations	3			S N
	MIN	NOM	MAX			D			
						MIN	NOM	MAX	
A	1.55	1.63	1.73		AA	4.8	4.93	4.98	8
A1	0.127	0.15	0.25		AB	8.58	8.69	8.74	14
A2	1.4	1.47	1.55		AC	9.8	9.93	9.98	16
B	0.35	0.41	0.49						
C	0.19	0.2	0.25						
D	See variations.			3					
E	3.81	3.94	3.99						
e	1.27 BSC								
H	5.84	5.99	6.2						
h	0.25	0.33	0.41						
L	0.41	0.64	0.89						
N	See variations.			5					
	0°	5°	8°						
X	2.16	2.36	2.54						



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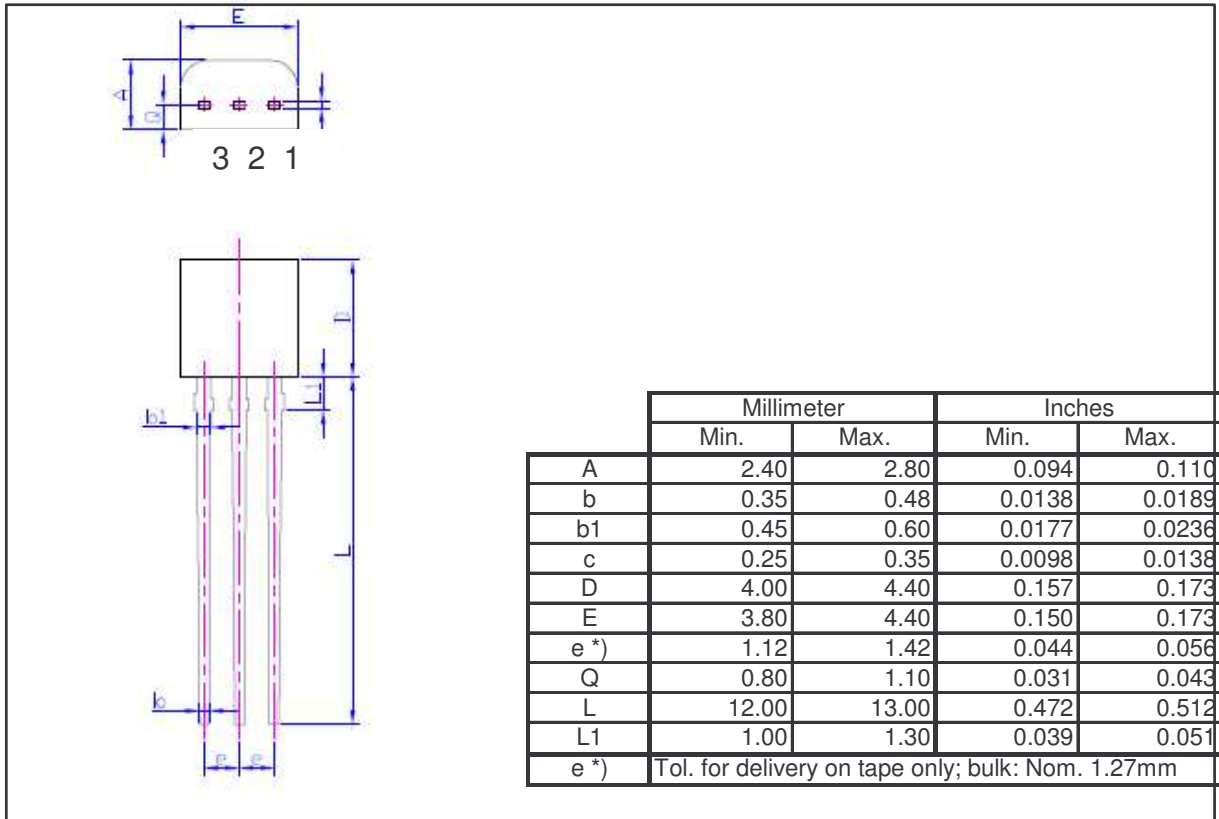


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TSic™ Die and Package Specifications for TSic™ Temperature Sensor IC

Technical Notes

2.1 TSic™ Series E-Line Package Dimensions (available until Dec 20th 2006)



E-Line Pin Assignment

Pin	Name	Description
3	V+ (VDD)	Supply Voltage (3.0-5.5V)
2	Signal	Temperature Output Signal
1	Gnd (VSS)	Ground



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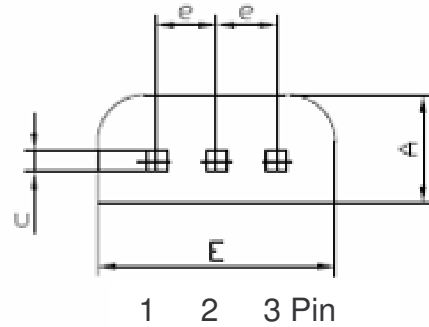
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TSic™ Die and Package Specifications for TSic™ Temperature Sensor IC

Technical Notes

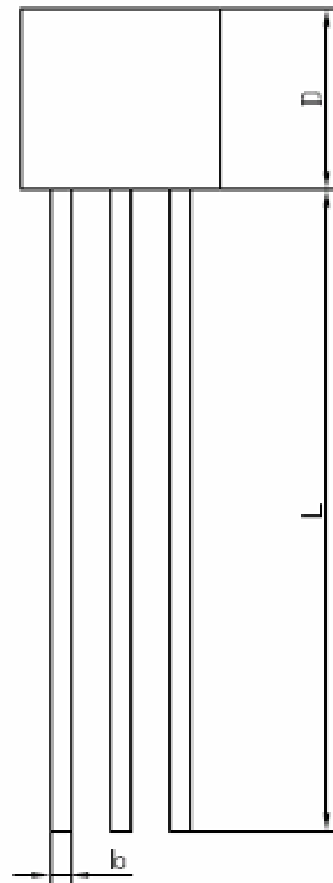
2.2 TSic™ Series TO92 Package Dimensions

Dim.	Millimeter		Inches	
	min.	max.	min.	max.
A	2.16	2.41	0.085	0.095
b	0.41	0.495	0.016	0.0195
c	0.41	0.495	0.016	0.0195
D	3.61	4.01	0.14	0.16
E	4.37	4.77	0.172	0.188
e	NOM. 1,27		NOM. 0,05	
L	13.0	13.97	0.512	0.550



TO92 - Pin Assignment

Pin	Name	Description
3	V+ (VDD)	Supply Voltage (3.0-5.5V)
2	Signal	Temperature Output Signal
1	Gnd (VSS)	Ground



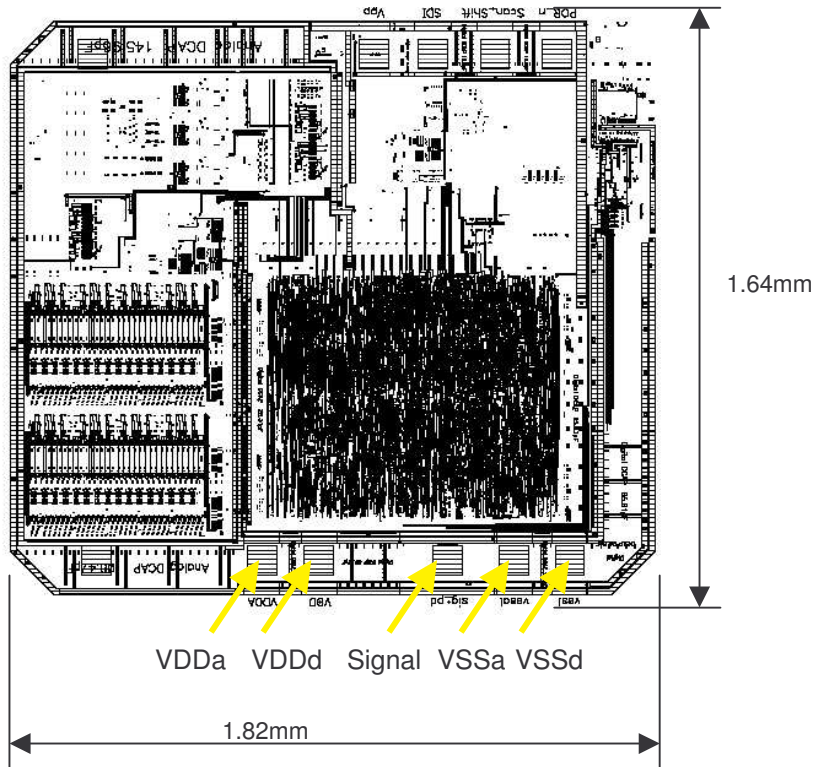
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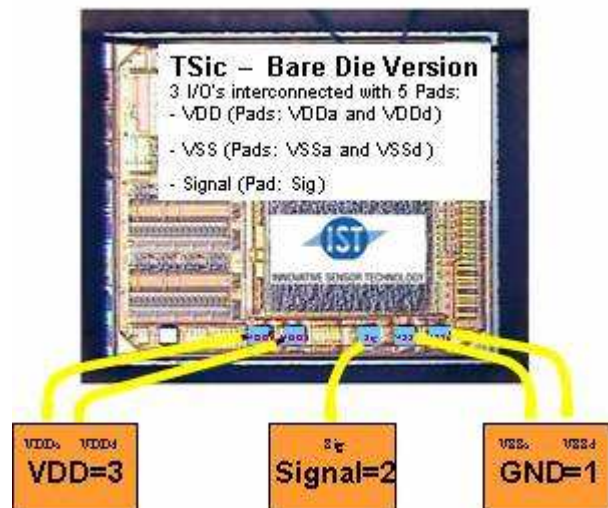
Technical Notes

3 Bare Die Dimensions



Bare Die Pin Assignments

Pin	Name	Description
3	V+ (VDD)	Supply Voltage (3.0-5.5V)
2	Signal	Temperature Output Signal
1	Gnd (VSS)	Ground



The analog and digital power and ground of the chip are wired to same substrate or Flex-Pad: VDDa and VDDd are wired to VDD, and VSSa and VSSd are wired to Ground. The Signal pin needs only one wire.



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