



TO92

Transistor Outline Package (TO92)

DESCRIPTION

LINGSEN's TO-92 (Transistor Outline) package is a cylindrical plastic encapsulated package with in-line exterior leads stretch out the bottom side of the package to provide through-hole insertion to the PWB. The TO-92 is an inexpensive package, which is readily adaptable for use in automatic insertion equipment.

SPECIFICATIONS

• Gold Wire:	99.99%Au.
• Mold Compound:	G600 (Green)
• Plating:	Matte Tin
• Marking:	Laser
• Packing:	S / Pb, Matte Tin
Straight lead option available in bulk pack only.	
Formed lead option available in tape & reel or ammo pack for TO-92 STD only.	

APPLICATIONS

- Transistors
- Power Management Devices
 - Voltage Detectors
 - Voltage Regulators
- Sensors
 - Hall Effect Sensors
 - Thermal Sensors

RELIABILITY

MSL Level	JEDEC Level 3 @ 260°
Pressure Cook Test	168 hrs (121°C,100%RH,2atm)
Temperature Cycling	1,000 cycles (-65°C/+150°C)
HAST	100 hrs (130°C,85%RH)
Temperature & Humidity Test	1,000 hrs (85°C,85%RH)
High Temperature Storage	1,000 hrs (150°C)

DEFINITION

- TO-92 STD (Standard Cylindrical Package)
Standard cylindrical body with 3 in-line exterior leads stretch out the bottom side.
- TO-92 SP/SPL (Small Flat Body Package)
Small flat body with 3 in-line exterior leads stretch out the bottom side.
- TO-92 4L/5L (Flat Package)
Flat body with 4 or 5 in-line exterior leads stretch out the bottom side.

PACKAGE AVAILABILITY

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θ_{ja} (°C/W)
TO-92 4L	5.22x3.81	3.81x2.03	2.52x1.78x0.30	109.06
TO-92 4L	5.22x3.81	3.81x2.03	1.98x1.31x0.30	107.51
TO-92 5L	5.22x3.65	3.46x1.90	2.00x1.50x0.30	105.30

Note: Simulated with JEDEC Standard 4-layer test board and 51-series under still air condition, ambient temperature 45°C

CROSS-SECTION

