



SOT223

Small Outline Transistor Package (SOT223)

DESCRIPTION

Lingsen Surface Mount SOT223 is a lead frame based plastic package and is specially designed to save space on PCB providing high dissipation capability in a limited space. It is suited for every application where space and volume are critical. The formed leads absorb thermal stress during soldering, thereby eliminating the possibility of damage to the die. The encapsulation material used in this package enhances the device reliability which allow it to exhibit excellent performance in high temperature and humidity environment.

The package meets JEDEC Moisture Sensitivity Level 3 standard that ensures reliability in its functions.

SPECIFICATIONS

- Die Thickness 125 um(6 mils) maximum
- Gold Wire 99.99% Au
- Mold Compound EME G600 (Green)
EME 6300H (Non-Green)
- Plating Matte Tin
- Marking Laser Mark
- Packing Tape & Reel / Shielding Bag

APPLICATIONS

- Voltage regulators
- Regulator
- Switch
- Microprocessor Supervisor

RELIABILITY

MSL Level: MSL 3 @ 240°C for Sn/Pb
MSL Level: MSL 3 @ 260°C for Pb-Free & Green
Pressure Cook Test: 168hrs (121°C, 100%RH, 2atm)
Temperature Cycling: 500cycles (-65°C/+150°C)
HAST: 100hrs (130°C, 85%RH)
Temperature & Humidity Test: 1,000hrs (85°C, 85%RH)
High Temperature Storage: 1,000hrs (150°C)

FEATURES

- Available pin count: 3L
- JEDEC standard compliant
- JEDEC MSL level 3 qualified

PACKAGE AVAILABILITY

Package	Body Size (mm)	Pad Size (mm)	Die Size (mm)	Thermal Performance θ_{ja} ($^{\circ}\text{C}/\text{W}$)
SOT-223	6.5x3.5	2.997x2.464	1.687x1.506	40.07

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

ELECTRICAL PERFORMANCE

Package	Body Size (mm)	Pad Size (mm)	Frequency (MHz)	Self Inductance (nH)	Self Capacitance (pF)	Resistance (mohm)
SOT-223	6.5x3.5	2.997x2.464	100	0.623~4.008	0.676~1.546	37.48~138.2

Note: Results are simulated. Data is available through 2.5GHz.

CROSS-SECTION

