

Introduction

TO-252 is followed JEDEC standard for medium-power discrete products.

Application

TO-252 is suitable for medium-power applications (reference values 80W*/60A), designed for low on-resistance and high-speed switching MOSFETs:

- Motor drivers
- Power supply circuits
- DC-DC converters
- Consumer products
- Automotive products

*T_c = 25°C, T_j = Max 150°C

Enhanced Feature Options

- Low on-resistance and high current density due to thick Al wire bonding
- Full turnkey available from wafer probe through test and packing
- Pb-free plating

Under Developments

- Environmentally friendly die attach Pb-free solder
- Halogen free mold compound

Process Highlights

- Interconnect: Thick Al wire bonding technology
- Plating: 100% matte Sn
- Marking: Laser mark

TO-252

Standard Materials

- Leadframe: Copper with Ni plating on wire bonding area
- Die attach: Pb solder
- Interconnect: Al wire 11.8 mil max
- Mold compound: With halogen

Reliability Qualification

J-Devices packages are assembled with proven reliable semiconductor materials.

- All reliability testing include: JEDEC standard pre-conditioning except high temperature storage
- 85°C/85%RH, 168 hours, IR reflow 260°C 3X
- PCT: 121°C/100% RH/2 atm, 96 hours
- Temp Cycle: -65°C/+150°C, 300 cycles
- High Temp Storage: 150°C, 1000 hours

Test Service

J-Devices offers full turnkey business for all power discrete products with the capability to test various types of power devices including: MOSFETs, intelligent power devices, etc.

- Power discrete test capability:
 - DC
 - Capacitance *1
 - R_g *1
 - Avalanche test
 - Thermal resistance
- Program conversion
- Electrical failure analysis
- Integrated test, marking, vision inspection and tape & reel services

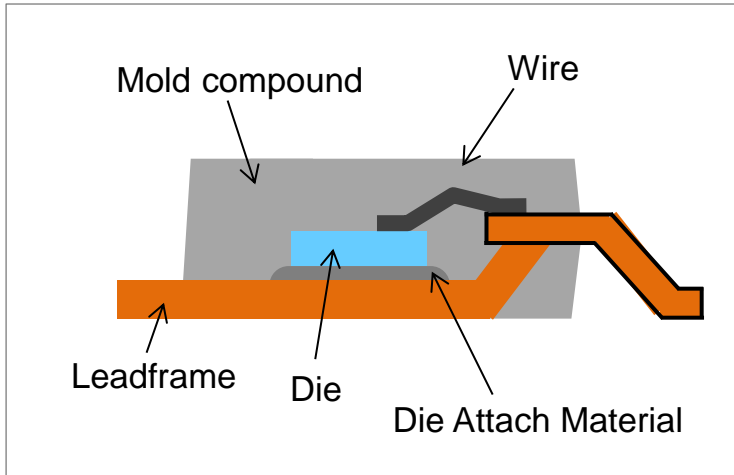
*1 Sampling test only

Shipping

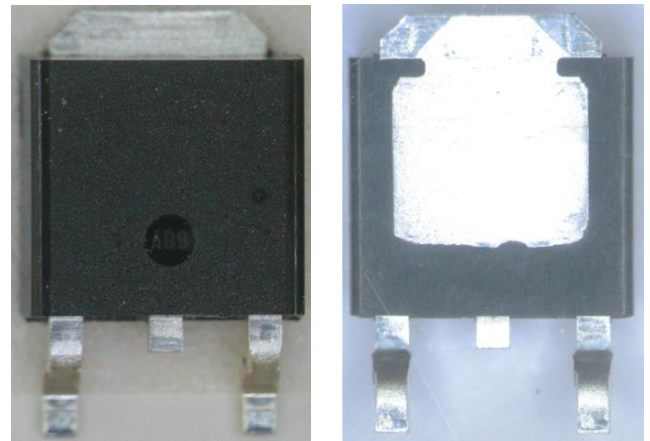
- Tape and reel packing
 - 2000 pcs per reel
 - Tape width 10.7 mm
 - Reel Φ = 330 mm
- Barcode packing label

TO-252

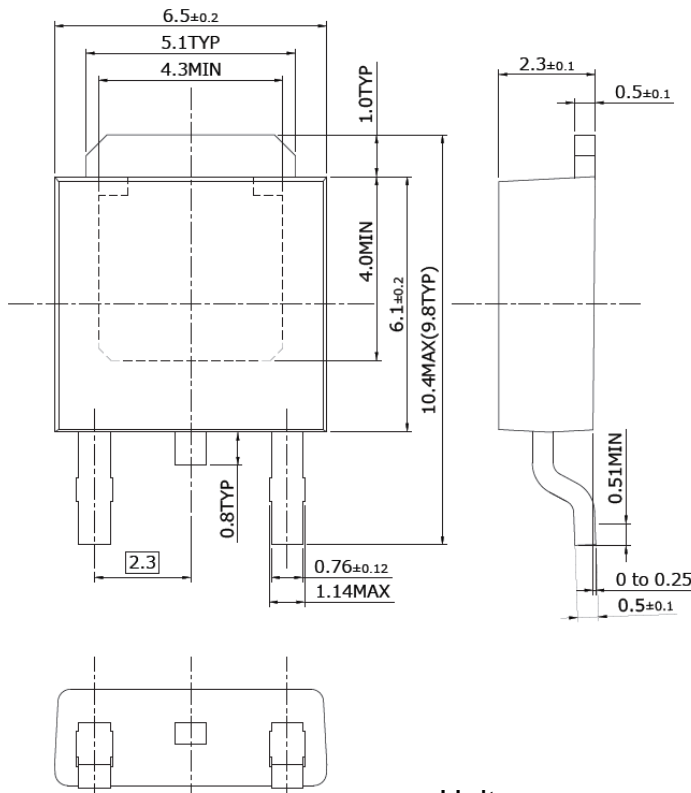
Cross-section



Top & Bottom View



Package Outline Drawing – TO-252



Unit: mm



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