

## Introduction

The SOD323-FL package is part of the FLAT series of compact surface mount packages which allow communication equipment to be miniaturized. The Cu clip structure of interconnect features reduces electrical resistance and enhance thermal performance compared to wire-bonded products.

This package may also be know as:

- US-FLAT
- TURP
- MicroSMP

## Application

The FLAT packages are suitable for the application of high-efficiency diodes, in small & medium size:

- Schottky Barrier Diodes (SBDs)
- Rectifier Diodes
- Zener Diodes

## Features

- Cu connector structure to reduce inductance and resistance
- Enhance thermal property
- Turnkey with test and packing services
- Green materials: Pb-free plating & halogen-free mold compound

## New Developments

- Larger/higher density leadframe strips
- Environmentally friendly Pb-free solder paste

## SOD323-FL

### Process Highlights

- Bare copper leadframe with no plating
- Interconnect: Cu clips technology for better electrical and thermal performance
- Plating: 100% matte Sn
- Marking: Pen type laser

### Standard Materials

- Leadframe: Bare copper
- Die attach: Solder paste
- Interconnect: Cu clips
- Mold compound: Halogen free

### Reliability Qualification

Amkor devices are assembled with proven reliable semiconductor materials. All test includes pre-condition of: Ta = 85°C/Rh = 85%, 24 hrs with IR reflow, Ta = 260°C, 4X

- Temperature & Humidity Storage, Ta = 85°C/Rh = 85%, 500 hrs
- Pressure Cooker, Ta = 121°C/Rh = 100%/P = 2 atm, 500 hrs
- Temperature Cycle, -65~150°C, 1000 cycles

### Test Service

Amkor offers full turnkey business for all power discrete products. We have the capability to test various type of power devices including MOSFETs, bipolar transistors, IGBTs, diodes, regulator ICs/intelligent power devices, etc.

- Amkor power discrete test capability:
  - Static test (DC)
  - Dynamic test (AC, Switching/Trr, Capacitance/Rg)
  - Destruction test (Inductive load/VISUS, I Latch, Surge, Isolation/VIL)
  - Thermal Resistance ( $\Delta VDS$ ,  $\Delta mV$ , etc.)
- Program generation/conversion
- Failure analysis
- Available test/handling technology
- Integrated marking, vision inspection and tape & reel services

Visit Amkor Technology online for locations and to view the most current product information.



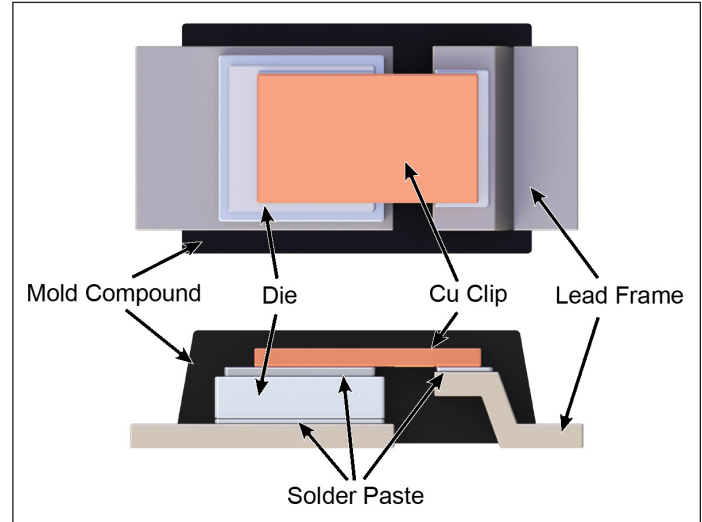
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## SOD323-FL

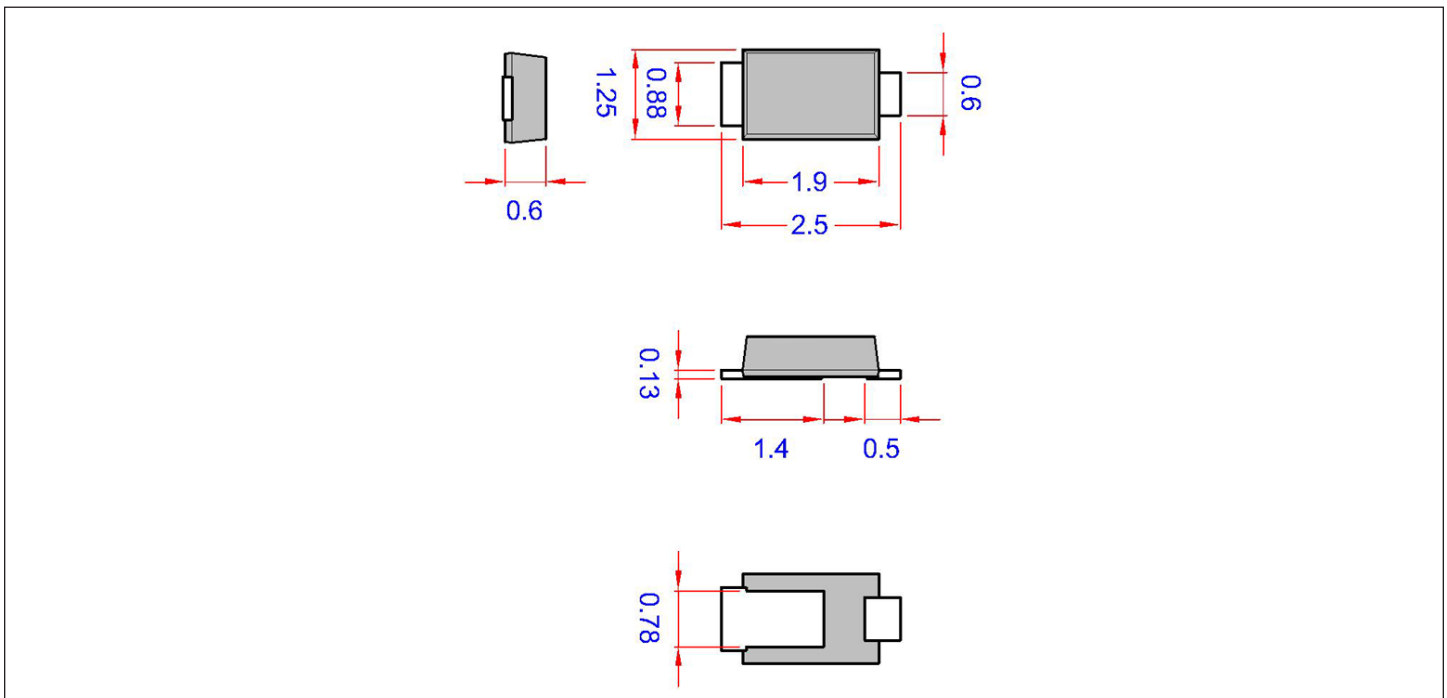
### Shipping

- Tape and reel packing
  - 4000 pcs per reel
  - Tape width 8 mm
  - Reel  $\Phi$  = 180 mm
- Barcode packing label
- Drop ship

### Cross-section SOD323-FL



### Package Outline Drawing SOD323-FL



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