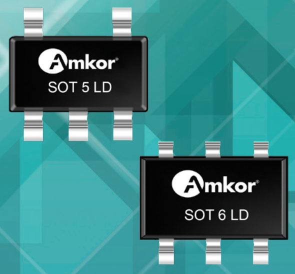
SOT-23/TSOT

SOT-23 (Small Outline Transistor) and TSOT (Thin Small Outline Transistor Package) are leadframe based, plastic encapsulated packages that are well suited for applications requiring very small footprints. These industry standard packages run in very high volume and provide a cost-effective solution for a wide range of applications. Having up to 8 leads, these packages can handle small ICs that may have previously been placed in SOIC or TSSOP packages.



FEATURES

- Cu wire interconnect for low cost
- Standard JEDEC and EIAJ package outlines
- Turnkey test services, including strip test options
- Green materials are standard – Pb-free and RoHS compliant

PROCESS HIGHLIGHTS

- Au plated PCC wire is standard, Au and Ag wire available
- Wafer backgrinding services available
- Optional chip-on-lead construction using film die attach material
- Matte Sn lead finish is standard
- Laser mark on package body

Reliability Qualification

Amkor package qualification uses three independent production lots and a minimum of 77 units per test group. All testing includes JSTD-020 moisture preconditioning.

- Moisture sensitivity characterization: JEDEC level 3, 85°C/85% RH, 168 hours
- uHAST: 130°C/85% RH, no bias, 96 hours
- Temp cycle: -65°C/+150°C, 500 cycles
- High temp storage: 150°C, 1000 hours

Services and Support

Amkor has a broad base of resources available to help customers bring quality products to market quickly and at the lowest possible cost.

- Full package characterization
- Thermal, mechanical stress and electrical performance modeling
- Turnkey assembly, test and drop-ship
- World-class reliability testing and failure analysis

Test Services

- Program generation/conversion
- Wafer probe
- Burn-in capabilities
- -55°C to +165°C test available
- Strip test available

Shipping Options

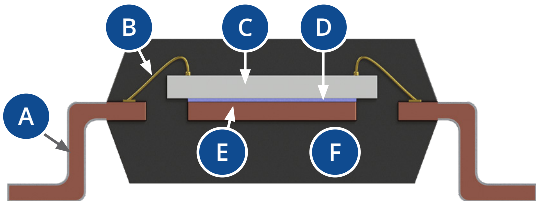
- Aluminum canister
- Tape and reel
- Dry pack
- Drop-ship

Amkor Technology®

SOT-23/TSOT

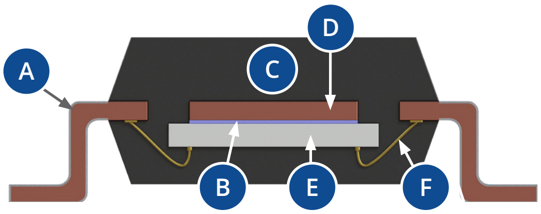
Cross Sections

Die Up



A Cu leadframe
B Wirebond
C Die
D Die attach adhesive
E Reduced pad
F Mold compound

Die Down



A Cu leadframe
B Die attach adhesive
C Mold compound
D Reduced pad
E Die
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Configuration Options

SOT-23/TSOT Nominal Package Dimensions (mm)

Package Type	Lead Count	Body Width	Body Length	Body Thickness	Overall Height	Lead Pitch	Tip-to-Tip	JEDEC/EIAJ
SOT-23	3	1.3	2.9	0.90	0.98	0.95/1.9	2.40	SOT346/ TO-236/SC-59
	4	1.3	2.9	0.90	0.98	1.92	2.40	SOT143/ TO-253
	5	1.6	2.9	1.15	1.23	0.95/1.9	2.80	MO-178
	6	1.6	2.9	1.15	1.23	0.95	2.80	MO-178
	8	1.6	2.9	1.15	1.23	0.65	2.80	MO-178
TSOT*	3	1.6	2.9	0.88	0.96	0.95/1.9	2.75	N/A
	5	1.6	2.9	0.88	0.96	0.95	2.75	MO-193
	6	1.6	2.9	0.88	0.96	0.95	2.75	MO-193
	8	1.6	2.9	0.88	0.96	0.65	2.75	MO-193

*TSOT may also be referenced as a TSOP

Visit amkor.com or email sales@amkor.com for more information.