Data Sheet

SOT-23/TSOT/SC-70

Small Outline Transistor, Thin Small Outline Transistor and Single Chip Packages (SOT-23, TSOT, SC-70)

SOT-23, TSOT and SC-70 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. A green BOM is standard, allowing devices to meet applicable Pb-free and RoHS standards.

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

Services and Support

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

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

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 1, 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

Process Highlights

- Wafer backgrinding services available
- Multiple die and die stacking capability
- Matte Sn lead finish is standard
- Laser mark on package body
- Optional chip-on-lead construction using film die attach material

Test Services

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

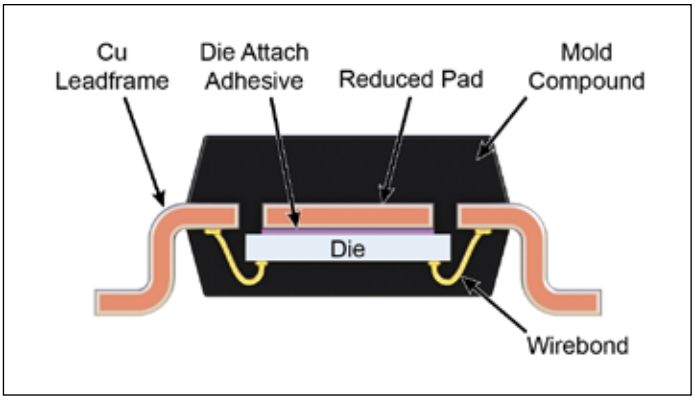
Shipping Options

- Aluminum cannister
- Tape and reel
- Bar code
- Dry pack
- Drop ship

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

SOT-23/TSOT/SC-70

Cross-section SOT-23/TSOT/SC-70



Configuration Options

SOT-23/TSOT/SC-70 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
SC-70	3	1.25	2.0	0.90	0.95	0.65/1.3	2.10	SC-70
	4	1.25	2.0	0.90	0.95	0.65	2.10	SC-61
	5	1.25	2.0	0.90	0.95	0.65/1.3	2.10	MO-203/MO-223
	6	1.25	2.0	0.90	0.95	0.65	2.10	MO-203/MO-223
	8	1.25	2.0	0.90	0.95	0.50	2.10	MO-203/MO-223

*TSOT may also be referenced as a TSOP

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