SOP :Small Outline Package

Image



Reference Image



Description

SFA SEMICON's broad portfolio of Small Outline Package (SOP) include the popular "gullwing" lead formats. Statistically controlled and refined assembly processes coupled with very high quality materials assure the best SOP packages available for your semiconductor devices. These IC packages have proven surface mount (SMT) performance characteristics and have been designed to adopt easily to all SMT processes and lines. SFA SEMICON's wide array of SOIC packages provide component and packaging engineers the ability and freedom to optimize systems and product designs.

Application

- Handheld devices, Cellular phones, PDAs, MP3s,
- Consumer (audio, video, entertainment)
- Telecommunications (pagers, cordless telephone)
- RF / wireless (PC cards, RF/CATV, telemetry)
- Office (fax, copier, printer)
- PC/peripheral
- Automotive

Feature

- JEDEC Standard compliance
- Green materials (Pb-free / RoHS compliance)
- Lead pitch ≥ 0.65mm

Reliability

- Moisture Sensitivity : JEDEC Level 1/2/3
- Unbias HAST : 130˚C, 85% RH, 96 hrs
- Temp. Cycling : -65℃/+150℃, 1000 cycles
- High Temp. Storage : 150℃, 1000Hrs

Bill of Materials and Process Specification

- LF : Cu
- Adhesive : Paste
- Wire : Au (0.95~2.0 mil), Cu
- EMC : Green
- Solder ball : Matte Sn (Standard)
- Marking : Laser
- Packing : Tube

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Electrical Characteristics

Pin	Body Size (mm)	LF	R [mΩ]	C [pF]	[nH]
SOP-8	3.95 x 4.92	Cu	44.9~70.5	0.3040~0.4111	1.4423~2.3182
SOP-28	7.50 x 17.78	Cu	246.2~451.0	2.7983~7.7839	0.4929~1.6622
TSSOP-8	4.40 x 3.00	Cu	73.3~83.9	2.1867~2.2706	0.2783~0.3046
TSSOP-16	4.40 x 5.00	Cu	161.4~211.2	1.8792~2.5634	0.3371~1.6030
SSOP-20	4.40 x 6.50	Cu	49.0~76.6	0.2514~0.5163	1.5324~2.9191
SSOP-30	7.50 x 12.74	Cu	115.2~178.1	0.3979~0.7790	4.3577~11.0750

Thermal Characteristics

Pin	Body Size (mm)	LF	Pad Size (mm)	Die Size (mm)	Θja [℃/W]
8	3.95 x 4.92	Cu	2.29 x 2.29	1.957 x 1.954	x 0.20 69.6

Package Line-up

Package	Body Size (mm)	Lead
SOP-225	3.95 x 4.92	8
SOP-225	3.95 x 8.56	14
SOP-225	3.95 x 9.90	16
SOP-300	5.40 x 13.70	20
SOP-300	5.30 x 15.20	24
SOP-375	7.50 x 12.74	20
SOP-375	7.50 x 15.34	24
SOP-375	7.70 x 17.62	28
SOP-450A	8.34 x 19.90	32
TSSOP-BD44	4.40 x 3.00	8
TSSOP-BD44	4.40 x 5.00	14
TSSOP-BD44	4.40 x 5.00	16
TSSOP-BD44	4.40 x 6.50	20
SSOP-225	3.95 x 4.92	10
SSOP-225	4.40 x 6.50	20
SSOP-BD54	5.40 x 8.20	24
SSOP-375	7.50 x 12.74	30
SSOPH-375A	7.50 x 18.40	28
SSOPH-375B	7.50 x 18.40	28