

Marking of National Semiconductor micro SMD products

PACKAGING

Marking
Locations

Date Codes

Product IDs

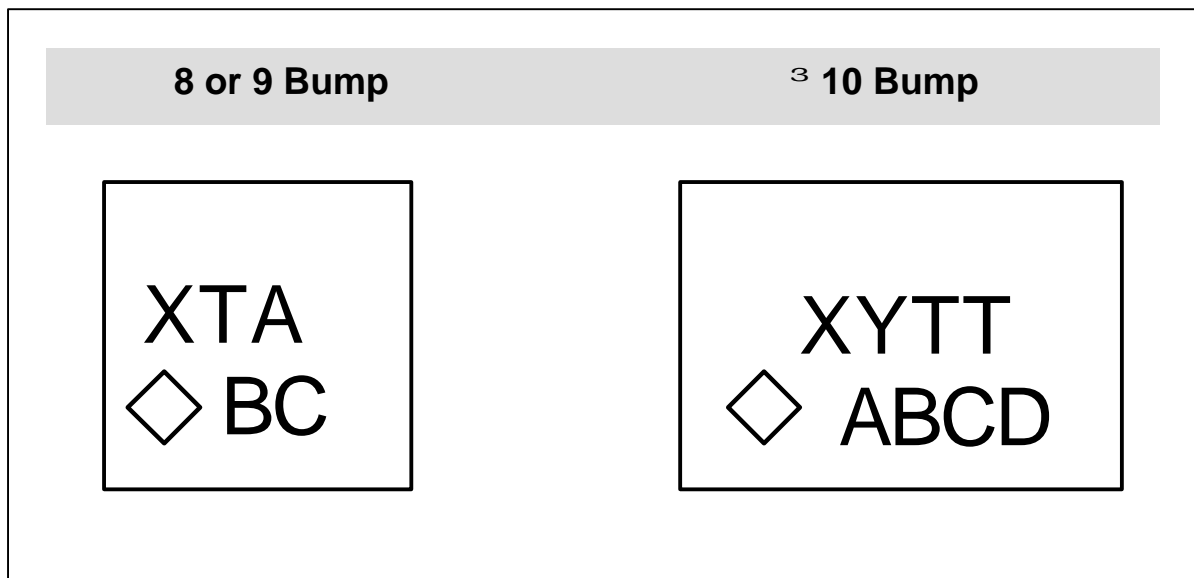
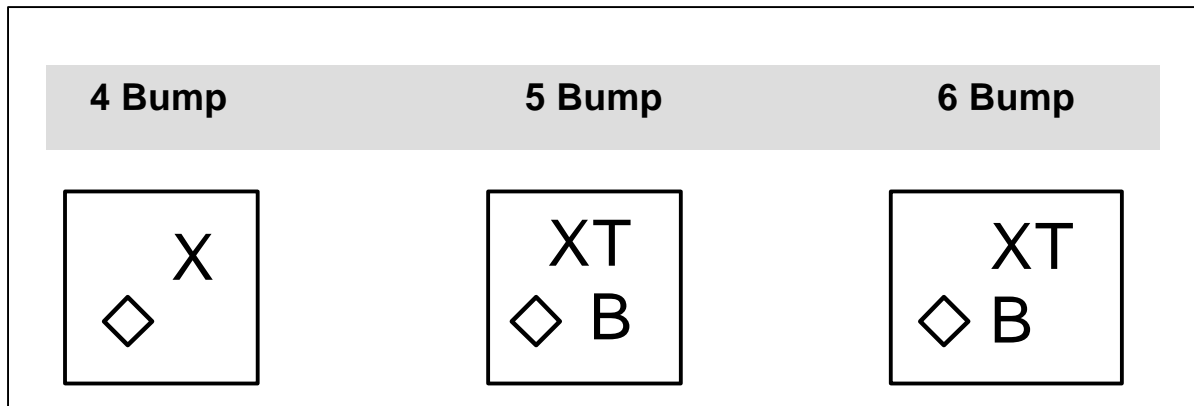
Micro SMD Standard
4-, 5-, & 8-Bump Device Pinout



Footprint to Die Ratios of Standard Surface
Mount Packages vs. Micro SMD



Marking Locations

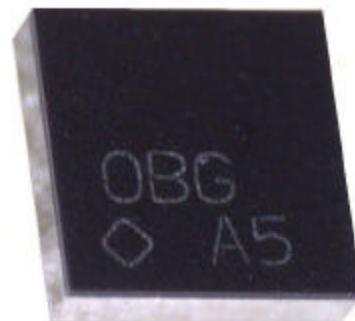


LEGEND:










- X, XY: Date Code
- T, TT: NSC internal code for Die Traceability
- A: Product Line ID
- B, BC, BCD: Product ID

Note: Refer to tables on next pages

Example: LM4893ITL, 9 bump



Pin 1 Identification

| Bump Company | Assembly Site: NSEM | Assembly Site: NSSG | Assembly Site: NSSC |
|--------------------|---|---|---|
| NSEM (Malaysia) |  |  |  |
| SUBCON 1 |  |  |  |
| SUBCON 2 |  |  |  |

Date Codes

Date Code Designator 'X'

| Designator 'X' | Date Code |
|-------------------|--------------|
| A | 0206 |
| B | 0212 |
| C | 0218 |
| D | 0224 |
| E | 0230 |
| F | 0236 |
| G | 0242 |
| H | 0248 |
| I | 0252 |

| Designator 'X' | Date Code |
|-------------------|--------------|
| J | 0306 |
| K | 0312 |
| L | 0318 |
| M | 0324 |
| N | 0330 |
| O | 0336 |
| P | 0342 |
| Q | 0348 |
| R | 0352 |

| Designator 'X' | Date Code |
|-------------------|--------------|
| S | 0406 |
| T | 0412 |
| U | 0418 |
| V | 0424 |
| W | 0430 |
| X | 0436 |
| Y | 0442 |
| Z | 0448 |
| @ | 0452 |

Date Code Designator 'XY'

| Designator 'XY' | Date Code |
|--------------------|--------------|
| 21 | 0206 |
| 22 | 0212 |
| 23 | 0218 |
| 24 | 0224 |
| 25 | 0230 |
| 26 | 0236 |
| 27 | 0242 |
| 28 | 0248 |
| 29 | 0252 |

| Designator 'XY' | Date Code |
|--------------------|--------------|
| 31 | 0306 |
| 32 | 0312 |
| 33 | 0318 |
| 34 | 0324 |
| 35 | 0330 |
| 36 | 0336 |
| 37 | 0342 |
| 38 | 0348 |
| 39 | 0352 |

| Designator 'XY' | Date Code |
|--------------------|--------------|
| 41 | 0406 |
| 42 | 0412 |
| 43 | 0418 |
| 44 | 0424 |
| 45 | 0430 |
| 46 | 0436 |
| 47 | 0442 |
| 48 | 0448 |
| 49 | 0452 |

List of currently available micro SMDs

| | | Designator 'A' | Designator 'B, BC, BCD' | |
|----------------|-------|--------------------|----------------------------|-------------|
| NSID | Bumps | Product Line ID | Product ID | MKT Drawing |
| LM2608ATL-1.3 | 10 | S | 43A | TLP108WB |
| LM2608ATL-1.8 | 10 | S | 44A | TLP108WB |
| LM2612ABL | 10 | S | 41A | BLP108WB |
| LM2612ABP | 10 | S | 45A | BPA10VWB |
| LM2612ATL | 10 | S | 41A | TLP108WB |
| LM2612BBL | 10 | S | 41B | BLP108WB |
| LM2612BBP | 10 | S | 45B | BPA10VWB |
| LM2612BTL | 10 | S | 41B | TLP108WB |
| LM2614ATL | 10 | S | 50A | TLP108WA |
| LM2614BTL | 10 | S | 50B | TLP108WA |
| LM2618ATL | 10 | S | 55A | TLP108WA |
| LM2618BTL | 10 | S | 55B | TLP108WA |
| LM2619ATL | 10 | S | 76A | TLP108WA |
| LM2787BP | 8 | S | 8 | BPA08CCB |
| LM2794BL | 14 | L | OG | BLP14EHB |
| LM2794TL | 14 | L | OG | TLP14EHA |
| LM2795BL | 14 | L | OJ | BLP14EHB |
| LM2795TL | 14 | L | OJ | TLP14EHA |
| LM2903ITL | 8 | C | 03 | TLA08AAA |
| LM2904IBP | 8 | A | 04 | BPA08AAB |
| LM337LBL | 6 | P | A | BLA06FNB |
| LM358BP | 8 | A | 5 | BPA08AAB |
| LM3700XBBP-270 | 9 | R | E | BPA09FFB |
| LM3700XCBP-290 | 9 | R | 23 | BPA09FFB |
| LM3700XCBP-308 | 9 | R | 0 | BPA09FFB |
| LM3701XBBP-420 | 9 | R | F | BPA09FFB |
| LM3701XCBP-308 | 9 | R | 1 | BPA09FFB |
| LM3702XCBP-308 | 9 | R | 2 | BPA09FFB |
| LM3702YABP-308 | 9 | R | 31 | BPA09FFB |
| LM3703XCBP-308 | 9 | R | 3 | BPA09FFB |
| LM3704XBBP-232 | 9 | R | 13 | BPA09FFB |
| LM3704XBBP-463 | 9 | R | 27 | BPA09FFB |
| LM3704XCBP-308 | 9 | R | 4 | BPA09FFB |
| LM3704XDBP-232 | 9 | R | 15 | BPA09FFB |
| LM3704XDBP-463 | 9 | R | 17 | BPA09FFB |
| LM3705XBBP-232 | 9 | R | 14 | BPA09FFB |
| LM3705XBBP-463 | 9 | R | 33 | BPA09FFB |
| LM3705XCBP-308 | 9 | R | 5 | BPA09FFB |
| LM3705XDBP-232 | 9 | R | 16 | BPA09FFB |

| NSID | Bumps | Designator 'A' | Designator 'B, BC, BCD' | MKT Drawing |
|----------------|-------|--------------------|----------------------------|-------------|
| | | Product Line ID | Product ID | |
| LM3705XDBP-463 | 9 | R | 18 | BPA09FFB |
| LM3706XQBP-308 | 9 | R | 6 | BPA09FFB |
| LM3707XQBP-308 | 9 | R | 7 | BPA09FFB |
| LM3708XQBP-308 | 9 | R | 8 | BPA09FFB |
| LM3709XQBP-308 | 9 | R | 9 | BPA09FFB |
| LM3710XKBP-232 | 9 | R | 19 | BPA09FFB |
| LM3710XKBP-463 | 9 | R | 21 | BPA09FFB |
| LM3710XQBP-308 | 9 | R | A | BPA09FFB |
| LM3711XKBP-232 | 9 | R | 20 | BPA09FFB |
| LM3711XKBP-463 | 9 | R | 22 | BPA09FFB |
| LM3711XQBP-308 | 9 | R | B | BPA09FFB |
| LM3712XQBP-308 | 9 | R | C | BPA09FFB |
| LM3713XQBP-308 | 9 | R | D | BPA09FFB |
| LM393TL | 8 | C | 02 | TLA08AAA |
| LM4665ITL | 9 | G | A2 | TLA09AAA |
| LM4820IBP-6 | 8 | G | F | BPA08DDB |
| LM4838ITL | 36 | G | A4 | TLA36AAA |
| LM4851ITL | 18 | G | B1 | TLA18AAA |
| LM4854IBL | 12 | G | 54 | BLA12BAB |
| LM4855IBL | 18 | G | 55 | BLA18AAB |
| LM4855ITL | 18 | G | A9 | TLA18AAA |
| LM4865IBP | 8 | G | C | BPA08CFB |
| LM4873IBL | 20 | G | I | BLA20AAB |
| LM4873ITL | 20 | G | B2 | TLA20AAA |
| LM4877IBP | 8 | G | B | BPA08B6B |
| LM4878IBP | 8 | G | D | BPA08B6B |
| LM4879IBL | 9 | G | 79 | BLA09AAB |
| LM4879IBP | 8 | G | N | BPA08DDB |
| LM4879ITL | 9 | G | B3 | TLA09AAA |
| LM4889ITL | 8 | G | A3 | TLA08AAA |
| LM4890IBL | 9 | G | P | BLA09AAB |
| LM4890IBP | 8 | G | E | BPA08DDB |
| LM4890ITL | 9 | G | A8 | TLA09AAA |
| LM4891IBP | 8 | G | G | BPA08DDB |
| LM4892IBP | 8 | G | H | BPA08DDB |
| LM4893ITL | 9 | G | A5 | TLA09AAA |
| LM4894IBP | 8 | G | L | BPA08CDB |
| LM4894ITL | 9 | G | A7 | TLA09AAA |
| LM4895IBP | 8 | G | K | BPA08CDB |
| LM4901IBL | 9 | G | Q | BLA09AAC |
| LM4904ITL | 8 | G | A6 | TLA08AAA |
| LM74CIBP-3 | 5 | | 8 | BPD05MPD |
| LM74CIBP-5 | 5 | | 9 | BPD05MPD |

| | | Designator 'A' | Designator 'B, BC, BCD' | |
|----------------|-------|--------------------|----------------------------|-------------|
| NSID | Bumps | Product Line ID | Product ID | MKT Drawing |
| LM78L05IBP | 8 | P | 1 | BPA08AAB |
| LM79L05ACTL | 6 | P | B | TLA06AMA |
| LMC555CBP | 8 | F | 1 | BPA08EFB |
| LMC6035IBP | 8 | A | 1 | BPA08FFB |
| LMC6035ITL | 8 | A | 80 | TLA08JQA |
| LMC8101BP | 8 | A | 2 | BPA08FFB |
| LMV243BL | 8 | A | 01 | BLA08AAC |
| LMV712BL | 10 | A | 76A | BLP10AAB |
| LMV981BL | 6 | A | A | BLA06AAB |
| LP2967IBP-1825 | 8 | L | OP | BPA08F5B |
| LP2967IBP-2528 | 8 | C | A | BPA08F5B |
| LP2967IBP-2533 | 8 | C | B | BPA08F5B |
| LP2967IBP-2626 | 8 | C | L | BPA08F5B |
| LP2967IBP-2828 | 8 | A | Q | BPA08F5B |
| LP2967IBP-2833 | 8 | C | C | BPA08F5B |
| LP2980AIBP-3.3 | 5 | | P | BPA05GAB |
| LP2980AIBP-5.0 | 5 | | R | BPA05GAB |
| LP2980IBP-3.3 | 5 | | P | BPA05GAB |
| LP2980IBP-5.0 | 5 | | R | BPA05GAB |
| LP2981AIBP-2.5 | 5 | | S | BPA05GAB |
| LP2981AIBP-3.2 | 5 | | T | BPA05GAB |
| LP2981AIBP-3.3 | 5 | | 1 | BPA05GAB |
| LP2981IBP-2.5 | 5 | | S | BPA05GAB |
| LP2981IBP-3.2 | 5 | | T | BPA05GAB |
| LP2981IBP-3.3 | 5 | | 1 | BPA05GAB |
| LP2982AIBP-2.8 | 5 | | U | BPA05GAB |
| LP2982AIBP-3.0 | 5 | | 2 | BPA05GAB |
| LP2982IBP-2.8 | 5 | | U | BPA05GAB |
| LP2982IBP-3.0 | 5 | | 2 | BPA05GAB |
| LP2985AIBL-1.8 | 5 | | N | BLA05BCB |
| LP2985AIBP-1.8 | 5 | | 5 | BPA05GAB |
| LP2985AIBP-2.4 | 5 | | B | BPA05GAB |
| LP2985AIBP-2.5 | 5 | | C | BPA05GAB |
| LP2985AIBP-2.6 | 5 | | D | BPA05GAB |
| LP2985AIBP-2.8 | 5 | | A | BPA05GAB |
| LP2985AIBP-2.9 | 5 | | E | BPA05GAB |
| LP2985AIBP-3.0 | 5 | | F | BPA05GAB |
| LP2985AIBP-3.3 | 5 | | H | BPA05GAB |
| LP2985AIBP-3.6 | 5 | | J | BPA05GAB |
| LP2985AIBP-4.0 | 5 | | K | BPA05GAB |
| LP2985AIBP-5.0 | 5 | | L | BPA05GAB |
| LP2985IBL-1.8 | 5 | | N | BLA05BCB |
| LP2985IBL-285 | 5 | | V | BLA05BCB |
| LP2985IBL-3.0 | 5 | | X | BLA05BCB |

| | | Designator 'A' | Designator 'B, BC, BCD' | |
|-----------------|-------|--------------------|----------------------------|-------------|
| NSID | Bumps | Product Line ID | Product ID | MKT Drawing |
| LP2985IBL-3.3 | 5 | | Y | BLA05BCB |
| LP2985IBP-1.8 | 5 | | 5 | BPA05GAB |
| LP2985IBP-2.4 | 5 | | B | BPA05GAB |
| LP2985IBP-2.5 | 5 | | C | BPA05GAB |
| LP2985IBP-2.6 | 5 | | D | BPA05GAB |
| LP2985IBP-2.8 | 5 | | A | BPA05GAB |
| LP2985IBP-2.9 | 5 | | E | BPA05GAB |
| LP2985IBP-3.0 | 5 | | F | BPA05GAB |
| LP2985IBP-3.3 | 5 | | H | BPA05GAB |
| LP2985IBP-3.6 | 5 | | J | BPA05GAB |
| LP2985IBP-4.0 | 5 | | K | BPA05GAB |
| LP2985IBP-5.0 | 5 | | L | BPA05GAB |
| LP3928TL-1828 | 16 | L | 8B | TLA16AAA |
| LP3985IBL-x.x | 5 | | 5 | BLA05AEC |
| LP3985ITL-x.x | 5 | | 5 | TLA05AEA |
| LP3986BL-2528 | 8 | D | 14 | BLA08CCC |
| LP3986BL-2828 | 8 | D | 10 | BLA08CCC |
| LP3986BL-285285 | 8 | D | 11 | BLA08CCC |
| LP3986BL-2929 | 8 | D | 15 | BLA08CCC |
| LP3986BL-3030 | 8 | D | 12 | BLA08CCC |
| LP3986BL-3131 | 8 | D | 13 | BLA08CCC |
| LP3986BL-3133 | 8 | D | 16 | BLA08CCC |
| LP3986BL-3333 | 8 | D | 17 | BLA08CCC |
| LP3987IBL-2.85 | 5 | | 1 | BLA05ADC |
| LP3987ITL-x.x | 5 | | 7 | TLA05AEA |
| LP3995ITL-x.x | 5 | | 9 | TLA05ADA |

Note: Listed NSIDs are for small packing quantities. NSID with extension 'X' will have same marking but result in a different packing quantity.

Example: LM4893ITL, LM4893ITLX
LP2967IBP-1825, LP2967IBPX-1825