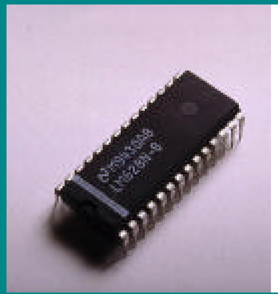
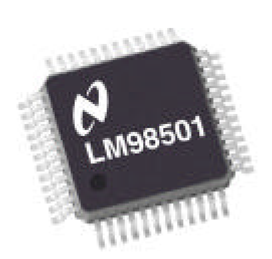
Configuration of Plastic Packages

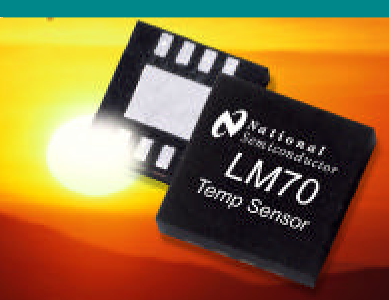
PACKAGING

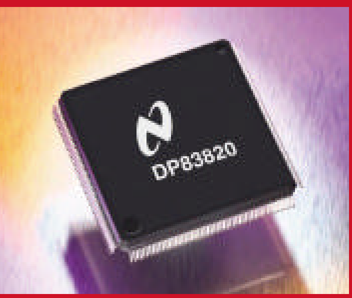
Package Configuration

Package Codes

Package Characteristics





Package Configuration	Package Code	Package Characteristics
Micro SMD		• Surface Mount Package • Epoxy Coating • No under-fill • Standard pick & place equipment useable • Self-alignment during reflow
Thick Small/large bump	**BP** **BL**	• SnPb Eutectic Bump only
Thin Small/large bump	**TP** **TL**	• SnPb Eutectic Bump • Pb-free devices available
Ultra thin Small bump	**UL** **UP**	• SnPb Eutectic Bump • Pb-free devices available
Plastic Small Outline Transistor SOT23/3Ld SOT23/5Ld SOT23/6Ld	**M3** **M5** **M6** **MF**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Pb-free devices available
SOT223 SOT223/4Ld SOT223/5Ld	**MP**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Pb-free devices available

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Package Configuration	Package Code	Package Characteristics
Leadless Leadframe Package (LLP)		• Surface Mount Package • Solder Plate Contact Plating • Low Thermal Resistance • Reduced Board Area
Pullback LLP	**LD** **LQ**	• SnPb- and Pb-free devices available
No Pullback LLP	**SD** **SN** **SP** **SQ** **SR** **SU**	• SnPb- and Pb-free devices available
Laminated Chip Scale Package (CSP) Regular Thin Ultra thin	**SLB** **SLD** **SLE** **SL**	• Surface Mount Package • JEDEC Reg. No. MO-208 • Board area reduction up to 50% compared to standard SOIC or TSSOP • Thermal resistance enhancement accomplished by thermal vias and thermal pads • Pb-free by design
SC-70 SC-70/5Ld SC-70/6Ld	**M7** **MG**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Pb-free devices available

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Package Configuration	Package Code	Package Characteristics
MINI-SOIC 8 Leads 10 Leads	**MM**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Pb-free devices available
Plastic Small Outline Package (SOIC) Narrow Body Wide Body	**M** **MA** **MW** **WM**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • EIAJ and JEDEC Package Styles • Footprint Compatible with Ceramic Small Outline Package (SOIC) • Pb-free devices available
Plastic Shrink Small Outline Package (SSOP) SSOP SSOP-EIAJ	**MS** **MSA** **MQA** **MEA** **MQ** **ME**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • EIAJ and JEDEC Package Styles • Footprint Compatible with Ceramic Small Outline Package (SOIC) • Pb-free devices available
Plastic Thin Shrink Small Outline Packages (TSSOP)	**MXA** **MXF** **TM** **MTC** **MTD** **MTE** **MT** **MH**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • EIAJ Package Styles • Pb-free devices available
Molded Dual-In-Line Package (MDIP)	**N** **NA**	• Through Hole Package • Solder Plate or Solder Dip Lead Finish • Molded Package • Thermal Enhancements Available • Footprint Compatible with Ceramic Sidebrazed Dual-In-Line Package (SB and Cerdip) • Pb-free devices available

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Package Configuration	Package Code	Package Characteristics
Thin Quad Flat Pack (TQFP) (t = 1.0 mm)	**V(X,X)** **VE** **VJ** **VQ** **VS** **VT** **VU**	• Surface Mount Package • Reduced Package Height • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Thermal Enhancements Available • High Density Package Application • Pb-free devices available
Low Profile Quad Flat Pack (LQFP) (t = 1.4 mm)	**V(X,X)** **VB** **VE** **VH** **VJ** **VN** **VP** **VT** **VV** **VY**	• Surface Mount Package • Reduced Package Height • Thermally enhanced with Heat Spreader • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • High Density Package Application • Pb-free devices available
Plastic Quad Flat Pack (PQFP) (t > 1.4 mm)	**V(X,X)** **VC** **VD** **VE** **VF** **VG** **VH** **VJ** **VK** **VL** **VM** **VO** **VQ** **VU**	• Surface Mount Package • Gull Wing Lead Configuration • Solder Plate Lead Finish • Molded Package • Thermal Enhancements Available • High Density Package Application • Pb-free devices available

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Package Configuration	Package Code	Package Characteristics
Plastic Leaded Chip Carrier (PLCC)	**V** **VA**	• Surface Mount Package • J-Bend Lead Configuration • Solder Plate Lead Finish • Molded Package • Footprint Compatible with Ceramic Quad J-Bend (CQJB) • Thermal Enhancements Available • Pb-free devices available
Fine Pitch Ball Grid Array (FBGA)	**SLC** **SM**	• Surface Mount Package • JEDEC Reg. No. 205 • SnPb Eutectic Bump • Epoxy Coating • No under-fill • Standard pick & place equipment useable • Self-alignment during reflow • Pb-free devices on request
Low Profile Ball Grid Array (LBGA)	**UF**	• Surface Mount Package • Reduced Package Height • SnPb Eutectic Bump • Epoxy Coating • No under-fill • Standard pick & place equipment useable • Self-alignment during reflow • Pb-free devices on request
Plastic Ball Grid Array (PBGA)	**U(X,X)** **UC**	• Surface Mount Package • SnPb Solder Balls • No under-fill • Standard pick & place equipment useable • Self-alignment during reflow

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Package Configuration	Package Code	Package Characteristics
TO Packages		• Through Hole and Surface Mount Package • Solder Plate Lead Finish • Molded Package • Designed with Heat Sink for High Power Applications (TO-220)
TO-92 **TO-220**	**TO92: Z** **ZA** **TO-220: T** **TA**	• Pb-free devices available
TO-263 **TO-252**	**TO-263: S** **TS** **TO-252: DT** **TD**	• Pb-free devices available

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