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## **PACKAGING INFORMATION**

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan	Lead finish/ Ball material (6)	MSL Peak Temp	Op Temp (°C)	Device Marking (4/5)	Samples
LM124AJ/PB	ACTIVE	CDIP	J	14	25	Non-RoHS & Green	Call TI	Level-1-NA-UNLIM	-55 to 125	LM124AJ	Samples
LM124J/PB	ACTIVE	CDIP	J	14	25	Non-RoHS & Green	Call TI	Level-1-NA-UNLIM	-55 to 125	LM124J	Samples
LM224J	ACTIVE	CDIP	J	14	25	Non-RoHS & Green	Call TI	Level-1-NA-UNLIM	-25 to 85	LM224J	Samples
LM2902M/NOPB	ACTIVE	SOIC	D	14	55	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	-40 to 85	LM2902M	Samples
LM2902MT/NOPB	ACTIVE	TSSOP	PW	14	94	RoHS & Green	SN	Level-1-260C-UNLIM	-40 to 85	LM290 2MT	Samples
LM2902MTX/NOPB	ACTIVE	TSSOP	PW	14	2500	RoHS & Green	SN	Level-1-260C-UNLIM	-40 to 85	LM290 2MT	Samples
LM2902MX/NOPB	ACTIVE	SOIC	D	14	2500	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	-40 to 85	LM2902M	Samples
LM2902N/NOPB	ACTIVE	PDIP	N	14	25	RoHS & Green	Call TI   NIPDAU	Level-1-NA-UNLIM	-40 to 85	LM2902N	Samples
LM324AM/NOPB	ACTIVE	SOIC	D	14	55	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	0 to 70	LM324AM	Samples
LM324AMX/NOPB	ACTIVE	SOIC	D	14	2500	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	0 to 70	LM324AM	Samples
LM324AN/NOPB	ACTIVE	PDIP	N	14	25	RoHS & Green	NIPDAU	Level-1-NA-UNLIM	0 to 70	LM324AN	Samples
LM324M/NOPB	ACTIVE	SOIC	D	14	55	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	0 to 70	LM324M	Samples
LM324MT/NOPB	ACTIVE	TSSOP	PW	14	94	RoHS & Green	SN	Level-1-260C-UNLIM	0 to 70	LM324 MT	Samples
LM324MTX/NOPB	ACTIVE	TSSOP	PW	14	2500	RoHS & Green	SN	Level-1-260C-UNLIM	0 to 70	LM324 MT	Samples
LM324MX/NOPB	ACTIVE	SOIC	D	14	2500	RoHS & Green	NIPDAU   SN	Level-1-260C-UNLIM	0 to 70	LM324M	Samples
LM324N/NOPB	ACTIVE	PDIP	N	14	25	RoHS & Green	Call TI   NIPDAU	Level-1-NA-UNLIM	0 to 70	LM324N	Samples

(1) The marketing status values are defined as follows:

ACTIVE: Product device recommended for new designs.

LIFEBUY: TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

NRND: Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

## PACKAGE OPTION ADDENDUM

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PREVIEW: Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

(2) RoHS: TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

RoHS Exempt: TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

Green: TI defines "Green" to mean the content of Chlorine (CI) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of <=1000ppm threshold. Antimony trioxide based flame retardants must also meet the <=1000ppm threshold requirement.

- (3) MSL, Peak Temp. The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.
- (4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.
- (5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.
- (6) Lead finish/Ball material Orderable Devices may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

**Important Information and Disclaimer:** The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

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## OTHER QUALIFIED VERSIONS OF LM124-N, LM2902-N:

Automotive : LM2902-Q1

Enhanced Product : LM2902-EP

Space : LM124-SP

NOTE: Qualified Version Definitions:

Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects



## **PACKAGE OPTION ADDENDUM**

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- Enhanced Product Supports Defense, Aerospace and Medical Applications
- Space Radiation tolerant, ceramic packaging and qualified for use in Space-based application