

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package Pins	Package qty Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
LM193DR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	LM193
LM193DRG4	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	LM193
LM2903AVQDR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903AV
LM2903AVQDRG4	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903AV
LM2903AVQPWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	(2903AV, L2903AV)
LM2903AVQPWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	(2903AV, L2903AV)
LM2903AVQPWRG4	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	(2903AV, L2903AV)
LM2903AVQPWRG4.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	(2903AV, L2903AV)
LM2903BIDDFR	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	2903B
LM2903BIDDFR.Z	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	2903B
LM2903BIDDFRG4.Z	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	2903B
LM2903BIDGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIDGKR.Z	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIDGKRG4.Z	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIDR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903B
LM2903BIDR.Z	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903B
LM2903BIDRG4.Z	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903B
LM2903BIDSGR	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIDSGR.Z	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIDSGRG4.Z	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	903B
LM2903BIPWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903B
LM2903BIPWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903B
LM2903DGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU SN NIPDAUAG	Level-1-260C-UNLIM	-40 to 125	(MAP, MAS, MAU)
LM2903DR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	-40 to 125	LM2903
LM2903DRG3	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	SN	Level-1-260C-UNLIM	-40 to 125	LM2903
LM2903P	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 125	LM2903P
LM2903P.Z	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 125	LM2903P
LM2903PSR	Active	Production	SO (PS) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903

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LM2903PWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	-40 to 125	L2903
LM2903PWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903
LM2903PWRG3	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	SN	Level-1-260C-UNLIM	-40 to 125	L2903
LM2903PWRG4	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903
LM2903PWRG4.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903
LM2903QD	Active	Production	SOIC (D) 8	75 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	2903Q
LM2903QDRG4	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	-40 to 125	2903Q
LM2903VQDR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903V
LM2903VQDRG4	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	-40 to 125	L2903V
LM2903VQPWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903V
LM2903VQPWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 125	L2903V
LM2903VQPWRG4	Obsolete	Production	TSSOP (PW) 8	-	-	Call TI	Call TI	-40 to 125	L2903V
LM293ADGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU SN NIPDAU	Level-1-260C-UNLIM	-25 to 85	(MDP, MDS, MDU)
LM293ADGKR.G4	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	-	Call TI	Call TI	-25 to 85	
LM293ADR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-25 to 85	LM293A
LM293D	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	-25 to 85	LM293
LM293DGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU SN NIPDAU	Level-1-260C-UNLIM	-25 to 85	(MCP, MCS, MCU)
LM293DGKR.Z	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-25 to 85	(MCP, MCS, MCU)
LM293DGKR.G4	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	-	Call TI	Call TI	-25 to 85	
LM293DR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-25 to 85	LM293
LM293DRG3	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	SN	Level-1-260C-UNLIM	-25 to 85	LM293
LM293P	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	-25 to 85	LM293P
LM293P.Z	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	-25 to 85	LM293P
LM293PE4	Active	Production	PDIP (P) 8	50 TUBE	-	Call TI	Call TI	-25 to 85	
LM393ADGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU NIPDAUAG NIPDAU	Level-1-260C-UNLIM	0 to 70	(M8P, M8S, M8U)
LM393ADGKR.G4	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	-	Call TI	Call TI	0 to 70	
LM393ADR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	0 to 70	LM393A
LM393ADRG4	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	0 to 70	LM393A
LM393AP	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU SN	N/A for Pkg Type	0 to 70	LM393AP
LM393AP.Z	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	LM393AP

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LM393APE4	Active	Production	PDIP (P) 8	50 TUBE	-	Call TI	Call TI	0 to 70	
LM393APSR	Active	Production	SO (PS) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393A
LM393APWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	0 to 70	L393A
LM393APWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393A
LM393APWRG4	Obsolete	Production	TSSOP (PW) 8	-	-	Call TI	Call TI	0 to 70	L393A
LM393BIDDFR	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDDFR.Z	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDDFRG4.Z	Active	Production	SOT-23-THIN (DDF) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDGKR.Z	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	LM393B
LM393BIDR.Z	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	LM393B
LM393BIDRG4.Z	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	LM393B
LM393BIDSGR	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDSGR.Z	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIDSGRG4.Z	Active	Production	WSON (DSG) 8	3000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	393B
LM393BIPWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	LM393B
LM393BIPWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	LM393B
LM393D	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	0 to 70	LM393
LM393DGKR	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	0 to 70	(M9P, M9S, M9U)
LM393DGKRG4	Active	Production	VSSOP (DGK) 8	2500 LARGE T&R	-	Call TI	Call TI	0 to 70	
LM393DR	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	LM393
LM393DRG3	Active	Production	SOIC (D) 8	2500 LARGE T&R	Yes	SN	Level-1-260C-UNLIM	0 to 70	LM393
LM393DRG4	Obsolete	Production	SOIC (D) 8	-	-	Call TI	Call TI	0 to 70	LM393
LM393P	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU SN	N/A for Pkg Type	0 to 70	LM393P
LM393P.Z	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	LM393P
LM393PE3	Active	Production	PDIP (P) 8	50 TUBE	Yes	SN	N/A for Pkg Type	0 to 70	LM393P
LM393PE4	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	LM393P
LM393PE4.Z	Active	Production	PDIP (P) 8	50 TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	LM393P
LM393PS	Active	Production	SO (PS) 8	80 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393
LM393PSR	Active	Production	SO (PS) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393

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LM393PSRG4	Active	Production	SO (PS) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393
LM393PWR	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU SN	Level-1-260C-UNLIM	0 to 70	L393
LM393PWR.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393
LM393PWRG3	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	SN	Level-1-260C-UNLIM	0 to 70	L393
LM393PWRG4	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393
LM393PWRG4.Z	Active	Production	TSSOP (PW) 8	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	L393

(1) **Status:** For more details on status, see our [product life cycle](#).

(2) **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

(3) **RoHS values:** Yes, No, RoHS Exempt. See the [TI RoHS Statement](#) for additional information and value definition.

(4) **Lead finish/Ball material:** Parts 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.

(5) **MSL rating/Peak reflow:** The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

(6) **Part marking:** There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "-" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

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.

In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.

OTHER QUALIFIED VERSIONS OF LM2903, LM2903B, LM293 :

- Automotive : [LM2903-Q1](#), [LM2903B-Q1](#)
- Enhanced Product : [LM293-EP](#)

NOTE: Qualified Version Definitions:

- Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects
- Enhanced Product - Supports Defense, Aerospace and Medical Applications