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## **PACKAGING INFORMATION**

Orderable part number	Status (1)	Material type	Package   Pins	Package qty   Carrier	<b>RoHS</b> (3)	Lead finish/ Ball material	MSL rating/ Peak reflow	Op temp (°C)	Part marking (6)
MSP430F5333IPZ	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5333
MSP430F5333IPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5333
MSP430F5333IPZR	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5333
MSP430F5333IPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5333
MSP430F5335IPZ	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5335
MSP430F5335IPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5335
MSP430F5335IPZG4.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5335
MSP430F5335IPZR	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5335
MSP430F5335IPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5335
MSP430F5335IZCAR	Active	Production	NFBGA (ZCA)   113	2500   LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5335
MSP430F5335IZCAR.Z	Active	Production	NFBGA (ZCA)   113	2500   LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5335
MSP430F5335IZCAT	Active	Production	NFBGA (ZCA)   113	250   SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5335
MSP430F5335IZCAT.Z	Active	Production	NFBGA (ZCA)   113	250   SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5335
MSP430F5336IPZ	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5336
MSP430F5336IPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5336
MSP430F5336IPZR	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5336
MSP430F5336IPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5336
MSP430F5338IPZ	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5338
MSP430F5338IPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5338
MSP430F5338IPZR	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5338
MSP430F5338IPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F5338
MSP430F5338IZCAR	Active	Production	NFBGA (ZCA)   113	2500   LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5338



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MSP430F5338IZCAR.Z	Active	Production	NFBGA (ZCA)   113	2500   LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5338
MSP430F5338IZCAT	Active	Production	NFBGA (ZCA)   113	250   SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5338
MSP430F5338IZCAT.Z	Active	Production	NFBGA (ZCA)   113	250   SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5338

<sup>(1)</sup> Status: For more details on status, see our product life cycle.

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.

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<sup>(2)</sup> 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.

<sup>(3)</sup> RoHS values: Yes, No, RoHS Exempt. See the TI RoHS Statement for additional information and value definition.

<sup>(4)</sup> 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.

<sup>(5)</sup> 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.

<sup>(6)</sup> 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.