



29-Jan-2021

PACKAGING INFORMATION

Orderable Device	Status	Package Type	Package Drawing	Pins	Package Qty	Eco Plan	Lead finish/ Ball material	MSL Peak Temp	Op Temp (°C)	Device Marking (4/5)	Samples
F280021PTQR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280021 PTQ	Sample
F280021PTSR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280021 PTS	Sample
F280023CPMSR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023CPMS	Sample
F280023CPNSR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023CPNS	Sample
F280023CPTSR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023C PTS	Samples
F280023PMQR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023PMQ	Samples
F280023PMSR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023PMS	Samples
F280023PNQR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023PNQ	Samples
F280023PNSR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023PNS	Samples
F280023PTQR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023 PTQ	Samples
F280023PTSR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280023 PTS	Samples
F280025CPMQR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025CPMQ	Samples
F280025CPMS	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025CPMS	Samples
F280025CPMSR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025CPMS	Samples
F280025CPNQR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025CPNQ	Samples
F280025CPNSR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025CPNS	Samples
F280025CPTQR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025C PTQ	Samples
F280025CPTSR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025C PTS	Samples



PACKAGE OPTION ADDENDUM

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Orderable Device	Status	Package Type	_	Pins	_	Eco Plan	Lead finish/	MSL Peak Temp	Op Temp (°C)	Device Marking	Samples
	(1)		Drawing		Qty	(2)	Ball material	(3)		(4/5)	
F280025PMQR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	(6) NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PMQ	Samples
F280025PMS	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PMS	Samples
F280025PMSR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PMS	Samples
F280025PNQR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PNQ	Samples
F280025PNS	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PNS	Samples
F280025PNSR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025PNS	Samples
F280025PTQR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025 PTQ	Samples
F280025PTS	ACTIVE	LQFP	PT	48	250	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025 PTS	Samples
F280025PTSR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280025 PTS	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.

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 (Cl) 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.



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(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.

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