Soldering and storage Recommendation (MSL 3 - 260 ℃)

① Storage condition

a. TI's shelf life of dry-packaged moisture sensitive devices inside the unopened moisture barrier bag is 3 (SSL: Standard Shelf life) or 6 (ESL: Extended Shelf Life) years from the time it was manufactured when stored in an environment not exceeding 30ºC / 40%-85% RH per TI's recommendation. MBB has 40ºC / 90% RH capability maximum per JEDEC. To quickly locate shelf life information (SSL or ESL), search by part number using the shelf life search tool (http://www.ti.com/quality/docs/productshelflife.tsp).

b. The floor life as the maximum time period from the opening of the MBB to the final reflow soldering is 7days at factory conditions of <30°C、<60%RH or placed in a dry storage cabinet at < 25°C and < 10% RH to prevent moisture absorption.

② Baking condition

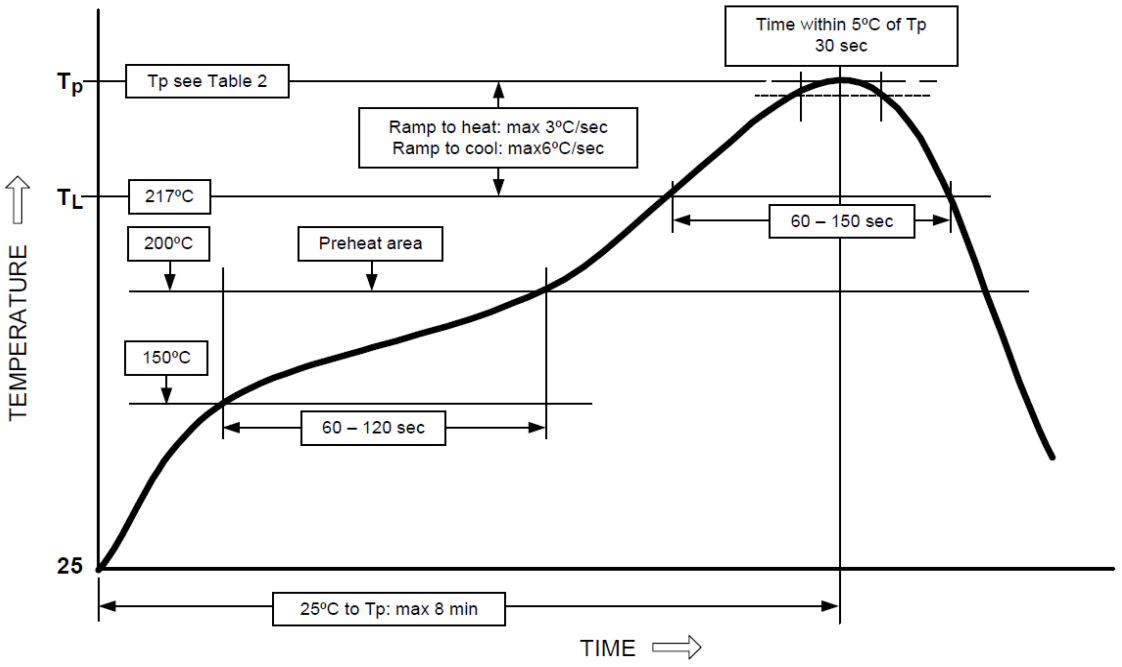
The parts will be required bake, before mounting, if Humidity Indicator Card is > 10% when read at 23 ±5 °C, or the above storage condition is not met. If baking is required, refer to IPC/JEDEC J-STD-033 for bake procedure.

③ Soldering condition

Devices should be mounted within the solder heat condition per the below.

Method	Peak package body temp (Tp) (°C)	Time within 5℃of Tp (sec)	Reflow passes (cycles)
IR reflow Convection reflow	260	30	3

Note:SMD (Surface Mount Device) is not recommended for flow soldering (wave soldering).



④ Rework condition

In case repair or even replacement of a component is needed, The profile should be within ③ and they should be implemented during ①., common rework tools are either hot gun or available rework machines. If exceeded ① at the reworking or replacement , a baking process is required

⑤ Cleaning condition

If the printed circuit boards were assembled using a rosin based or other flux system which requires removal from the board surface after reflow, the subsequent cleaning operation should be performed as shortly after reflow as possible. The timely initiation of the cleaning operation is dictated by the ability of the flux to collect and harden with additional residues under and around traces and the bodies of components. The lack of attention to the timely removal of this residue present additional and unneeded removal difficulties, with the possibility that some contaminates may be trapped in flux and remain on the surface of the board to potentially compromise qualities

⑥ Package / soldering detail

Refer to the application note the below.

http://www.ti.com/lsds/ti/packaging/packaging_resources/SMT_and_application_notes.page#qfn
http://www.ti.com/lit/pdf/SNOA550

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