IPC/JEDEC J-STD-033B

Table 4-1 Reference Conditions for Drying Mounted or Unmounted SMD Packages (User Bake: Floor life begins counting at time = 0 after bake)

Package Body	Level	Bake @ 125°C		Bake @ 90°C ≦5% RH		Bake @ 40°C ≦5% RH	
		Exceeding Floor Life by >72 h	Exceeding Floor Life by≦72 h	Exceeding Floor Life by >72 h	Exceeding Floor Life by≦72 h	Exceeding Floor Life by >72 h	Exceeding Floor Life by≦72 h
Thickness ≦1.4 mm	2	5 hours	3 hours	17 hours	11 hours	8 days	5 days
	2a	7 hours	5 hours	23 hours	13 hours	9 days	7 days
	3	9 hours	7 hours	33 hours	23 hours	13 days	9 days
	4	11 hours	7 hours	37 hours	23 hours	15 days	9 days
	5	12 hours	7 hours	41 hours	24 hours	17 days	10 days
	5a	16 hours	10 hours	54 hours	24 hours	22 days	10 days
Thickness >1.4 mm ≦2.0 mm	2	18 hours	15 hours	63 hours	2 days	25days	20 days
	2a	21 hours	16 hours	3 days	2 days	29 days	22 days
	3	27 hours	17 hours	4 days	2 days	37 days	23 days
	4	34 hours	20 hours	5 days	3 days	47 days	28 days
	5	40 hours	25 hours	6 days	4 days	57 days	35 days
	5a	48 hours	40 hours	8 days	6 days	79 days	56 days
Thickness >2.0 mm ≦4.5 mm	2	48 hours	48 hours	10 days	7 days	79 days	67 days
	2a	48 hours	48 hours	10 days	7 days	79 days	67 days
	3	48 hours	48 hours	10 days	8 days	79 days	67 days
	4	48 hours	48 hours	10 days	10 days	79 days	67 days
	5	48 hours	48 hours	10 days	10 days	79 days	67 days
	5a	48 hours	48 hours	10 days	10 days	79 days	67 days
BGA package >17 mm x 17 mm or any stacked die package (See Note 2)	2-6	96 hours	As above per package thickness and moisture level	Not applicable	As above per package thickness and moisture level	Not applicable	As above per package thickness and moisture level

Note 1: Table 4-1 is based on worst-case molded lead frame SMD packages. Users may reduce the actual bake time if technically justified (e.g., absorption/desorption data, etc.). In most cases it is applicable to other nonhermetic surface mount SMD packages.

Note 2: For BGA packages >17 mm x 17 mm, that do not have internal planes that block the moisture diffusion path in the substrate, may use bake times based on the thickness/moisture level portion of the table.

Note 3: If baking of packages >4.5 mm thick is required see appendix B.

Table 4-3 Resetting or Pausing the "Floor Life" Clock at User Site

MSL Level	Exposure Time @ Temp/Humidity	Floor Life	Desiccator Time @ Relative Humidity	Bake	Reset Shelf Life
2, 2a, 3, 4, 5, 5a	Anytime ≦40°C/85% RH	reset	NA	Table 4.1	Dry Pack
2, 2a, 3, 4, 5, 5a	> floor life ≦30°C/60% RH	reset	NA	Table 4.1	Dry Pack
2a, 3, 4	>12 hrs ≦30°C/60% RH	reset	NA	Table 4.1	Dry Pack
2, 2a, 3, 4	≦12 hrs ≦30°C/60% RH	reset	5X exposure time ≦10% RH	NA	NA
5, 5a	>8 hrs ≦30°C/60% RH	reset	NA	Table 4.1	Dry Pack
5, 5a	≦8 hrs ≦30°C/60% RH	reset	10X exposure time ≦5% RH	NA	NA
2, 2a, 3	Cumulative time ≧floor life ≦30°C/60% RH	pause	Anytime ≦10% RH	NA	NA

※ according to IPC/JEDEC J-STD-033B