

PLASTIC PACKAGE/PRODUCT QUALIFICATION REQUIREMENTS

TEST SEQ	TEST DESCRIPTION (Note #1)	ACC#/ S. SIZE (Note #2)	NEW ASSY. PLANT	PKG TYPE I (Note #3)	NEW PKG TYPE II (Note #4)	NEW PKG TYPE III LF DESIGN (Note #5)	FRAME	DIE	DIE		CPD		NEW MASK (Note #6)	FAB PROCESS	
	* Phy. Dimension		X	X	X							X			X
	* Resist. to Solvents (Note #7)		X								X	X			X
	* Solderability Test (Note #7)		X				X					X			X
	Solder Heat Test (Optn'l)	0/15				X	X				X				X
		0/76	X	X	X	X	X		X		X		X		X
	* (Note #7)		X	X					X	X	X		X	X	X
B7	** X-Ray (Note #7)		X	X	X	X			X	X	X		X		X
	* (Note #7)	0/10	X	X	X	X	X				X	X			X
	* Adhesion of L/Finish (Optn'l) (Note #7)		X				X					X			X
B10	* External Visual (Note #7)	0/25	X	X	X	X	X				X				X
B11	Internal Visual (Note #7)		X	X	X		X	X	X	X			X	X	X
B12	* Die Shear (Note #7)		X					X					X	X	X
B13	Flammability test (Note #7)	Per lot									X				X
	High Temp Life Test								X				X	X	X
	Low Temp Life Test (Note #7)												X	X	X
			X	X		X	X	X	X		X			X	X
	ESD (HBM)	0/3											X	X	X
		0/77									X		X	X	X
	* Lead Integrity		X	X	X							X			X
		0/76													X
		0/76	X	X	X	X	X	X	X	X	X			X	X
		0/30											X	X	X
	Electrical characterization	0/30											X	X	X
	T.D.D.B (Note #7)	-											X	X	X
		0/9											X	X	X
	Electromigration (Note #7)	-											X	X	X
													X	X	X
													X	X	X
		0/5											X	X	X
													X	X	X
Qty required per lot		E. Good	239	238	162	248	248	157	314	86	325	0	393	464	636
		E. Reject						5	5	5					
		Total	302	286	205	283	291	162	319	91	368	29	403	474	700

Note: 1) Refer to Table #2 for test method and stress conditions.
2) For any QUAL which does not meet the standard requirements, approval from Product Engineering and Product QA is required.

7) In process monitor data may be used to satisfy this requirement.

(*) - Electrical rejects can be used as test sample

(**) - This is a non-destructive test. sample can be re-used.

TEST SEQ	TEST DESCRIPTION (Note #1)	ACC#/ S. SIZE (Note #2)	NEW ASSY. PLANT	NEW PKG FAM'LY (Note #3)	NEW PKG FAM'LY (Note #4)							NEW CAVITY SIZE (Note #5)	DEVICE (Note #6)	NEW FAB/ PROCESS	QUAL
						LEAD FRAME	DIE ATTACH	DIE COAT	WIRE BOND	TYPE OF SEAL	LEAD FINISH				
	* Resist. to Solvents Note #7		X	X	X					X	X	X			X
	* Solderability Test Note #7		X	X		X					X				X
	* Die Shear / Stud Pull Note #7		X	X	X		X						X	X	X
	* Note #7	0/2	X	X	X	X		X	X				X	X	X
	* External Visual Note #7		X	X	X	X				X		X			X
	Internal Visual Note #7		X	X	X	X	X	X	X				X	X	X
C1-A	High Temp Life Test		X	X				X	X				X	X	X
	Low Temp Life Test Note #7	0/22											X	X	X
		0/77						X					X	X	X
	ESD (HBM)	0/3											X	X	X
	* Phy. Dimension	0/15	X	X	X						X	X		X	X
	* Lead Integrity		X	X	X	X					X			X	X
			X	X	X	X	X	X	X	X	X	X	X	X	X
	Mech. Shock + Vibration + Constant Acceleration		X	X	X	X	X		X	X		X	X	X	X
	* Salt Atmosphere		X	X	X	X					X			X	X
	* Internal Vapor Content Note #7	0/3	X	X	X		X	X		X		X		X	X
	* Adhesion of L/Finish (Optional)		X	X	X	X					X			X	X
	* Note #7	0/5	X	X	X					X		X		X	X
		0/45	X	X	X		X	X	X	X		X	X	X	X
	Electrical test & datalog	0/30											X	X	X
	Electrical Characterization	0/30											X	X	X
	T.D.D.B Note #7												X	X	X
	Note #7	0/9											X	X	X
		-											X	X	X
	Photosensitivity (Optional)												X	X	X
	Data Retention Bake	0/22											X	X	X
	Input/Output Capacitance												X	X	X
Qty required per lot			E. Good	190	205	129	69	114	235	190	124	32	124	399	414
			E. Rej.					8	5	2				7	
			Total	271	286	204	119	122	240	192	157	73	172	406	495

Note:

- 2) For any Qual which does not meet the standard requirements, approval from Product Engineering and Product QA is required.
- 3) Package Family - A set of package type with the same package, material, Package construction techniques, terminal pitch, lead shape, row spacing and with identical package assembly tech.
- 5) Applicable to new piece parts or leadframe where the cavity size is larger than the largest cavity size for the same package.
- 7) In-process Monitor data may be used to satisfy this requirement, for Qual data, data from Assy. lot traveler maybe used.