



Integrated Device Technology, Inc.
2975 Stender Way, Santa Clara, CA - 95054

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: G0106-01 DATE: 6/11/01
 Product Affected: All Plastic Surface Mount Packages
 Manufacturing Location Affected: All assembly sites
 Date Effective: 9/11/01

MEANS OF DISTINGUISHING CHANGED DEVICES:
 Product Mark
 Back Mark
 Date Code
 Other (Moisture label)

Contact: PS Tow
 Title: Director, Corporate Quality & Reliability Attachment: Yes No
 Phone #: (408) 492-8206
 Fax #: (408) 727-2328 Samples:
 E-mail: pstow@idt.com

DESCRIPTION AND PURPOSE OF CHANGE:

- | | |
|---|---|
| <input type="checkbox"/> Die Technology
<input type="checkbox"/> Wafer Fabrication Process
<input type="checkbox"/> Assembly Process
<input type="checkbox"/> Equipment
<input type="checkbox"/> Material
<input type="checkbox"/> Testing
<input type="checkbox"/> Manufacturing Site
<input type="checkbox"/> Data Sheet
<input checked="" type="checkbox"/> Other (Moisture Label) | <p>In order to be in compliance with IPC/JEDEC J-STD-020A, IDT plans to implement the new JEDEC moisture label per IPC/JEDEC J-STD-033 (see attachment 1).
 JEDEC specification IPC/JEDEC J-STD-020A requires reflow peak temperature of for devices with package body thickness < 2.5 mm and volume <350 mm³. Other package body sizes including all BGA will remain at reflow peak temperature of 220 +5/-0°C.
 Please refer to attachment 2 for the list of packages required reflow peak temperature of 235 +5/-0 °C</p> |
|---|---|

RELIABILITY/QUALIFICATION SUMMARY:

IDT has completed the characterization of all Plastic Surface Mount Packages per new JEDEC specification IPC/JEDEC J-STD-020A. There is no change in moisture sensitivity level for all IDT products. For those products which were initially affected by reflow peak temperature of 235 +5/-0 °C, IDT has implemented all the necessary package improvement actions for them to meet the same moisture level.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.
 IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: _____	<input type="checkbox"/> <i>Approval for shipments prior to effective date.</i>
Name/Date: _____	E-Mail Address: _____
Title: _____	Phone# /Fax#: _____

CUSTOMER COMMENTS: _____

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: _____ DATE: _____



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ATTACHMENT 1

	CAUTION	LEVEL
	This bag contains MOISTURE-SENSITIVE DEVICES	
		If Blank, see adjacent bar code label
<ol style="list-style-type: none"> 1. Calculated shelf life in sealed bag: 12 months at $<40^{\circ}\text{C}$ and $<90\%$ relative humidity (RH) 2. Peak package body temperature: _____ $^{\circ}\text{C}$ If Blank, see adjacent bar code label 3. After bag is opened, devices that will be subjected to reflow solder or other high temperature process must <ol style="list-style-type: none"> a) Mounted within: _____ hours of factory conditions $\leq 30^{\circ}\text{C}/60\%$ RH, or b) stored at $<10\%$ RH 4. Devices require bake, before mounting, if: <ol style="list-style-type: none"> a) Humidity Indicator Card is $>10\%$ when read at $23 \pm 5^{\circ}\text{C}$ b) 5a or 5b not met. 5. If baking is required, devices may be baked for 48 hours at $125 \pm 5^{\circ}\text{C}$ Note: If device containers cannot be subjected to high temperature or shorter bake times are desired, reference IPC/JEDEC J-STD-033 for bake procedure 		
Bag Seal Date: _____ If Blank, see adjacent bar code label Note: Level and body temperature defined by IPC/JEDEC J-STD-020		

Figure 1:

New Moisture Label as per
IPC/JEDEC J-STD-033

(Note: Moisture level and Package body temperature defined by IPC/JEDEC J-STD-020 with Peak package body temperature of either 235°C or 220°C depending on the package body size)

	CAUTION	LEVEL
	This Bag Contains MOISTURE SENSITIVE DEVICES	
		If Blank, see adjacent bar code label
<ol style="list-style-type: none"> 1. Shelf life in sealed bag: 12 months at $<40^{\circ}\text{C}$ and $<90\%$ Relative Humidity (RH). 2. After this bag is opened, devices that will be subjected to infrared reflow, vapor-phase reflow, or equivalent processing (peak package body temp. 220°C) must be: <ol style="list-style-type: none"> a) Mounted within _____ hours at factory conditions of $\leq 30^{\circ}\text{C}/60\%$ RH, or b) Stored at $\leq 20\%$ RH. 3. Devices require baking, before mounting, if: <ol style="list-style-type: none"> a) Humidity Indicator Card is $>20\%$ when read at $23^{\circ} \pm 5^{\circ}\text{C}$, or b) 2a or 2b is not met. 4. If baking is required, devices may be baked for: <ol style="list-style-type: none"> a) 192 hours at $40^{\circ}\text{C} + 5^{\circ}\text{C}/-0^{\circ}\text{C}$ and $<5\%$ RH for low temperature device containers, or b) 24 hours at $125^{\circ}\text{C} \pm 5^{\circ}\text{C}$ for high temperature device containers 		
Bag Seal Date : _____ If blank, see bar code label Note: LEVEL defined by EIA JEDEC Standard JESD22-A112		

Figure 2:

Old Moisture Label

(Note: Moisture level defined by EIA/JEDEC standard JESD22-A112 with Peak package body temperature of 220°C for all package sizes)



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ATTACHMENT 2

PSMC Reflow Peak Temperature of 235 °C per J-STD-20A

Package Family	Description	Top Mark	Alternate Top Mark	IDT Package Type	Peak T, Reflow
PQFP	44 L PQFP 10 x 10 x 2.0 mm	DB		DB44	235 +5/-0 °C
SOIC	14 L SOIC 150 mil	DC	S1	DC14	235 +5/-0 °C
SOIC	16 L SOIC 150 mil	DC	S1	DC16	235 +5/-0 °C
SOIC	8 L SOIC 150 mil	DC	S	DC8	235 +5/-0 °C
SOIC	16 L SOIC 300 mil	SO	S	PS16	235 +5/-0 °C
SOIC	18 L SOIC 300 mil	SO		PS18	235 +5/-0 °C
SOIC	20 L SOIC 300 mil	SO	S	PS20	235 +5/-0 °C
SOIC	24 L SOIC 300 mil	SO	S	PS24	235 +5/-0 °C
SOIC	28 L SOIC 300 mil	SO		PS28	235 +5/-0 °C
SOT	5 L SC-70	DY		DY5	235 +5/-0 °C
SSOP	48 L QSOP 150 mil	DY	Q1	DJ48	235 +5/-0 °C
SSOP	40 L QSOP 150 mil	DM	Q2	DM40	235 +5/-0 °C
SSOP	80 L QSOP 150 mil	DM	Q3	DM80	235 +5/-0 °C
SSOP	16 L SSOP 150 mil	Q		PC16	235 +5/-0 °C
SSOP	20 L QSOP 150 mil	Q		PC20	235 +5/-0 °C
SSOP	24 L QSOP 150 mil	Q		PC24	235 +5/-0 °C
SSOP	28 L QSOP 150 mil	Q		PC28	235 +5/-0 °C
SSOP	48 L SSOP 300 mil	PV		PV48	235 +5/-0 °C
SSOP	56 L SSOP 300 mil	PV		PV56	235 +5/-0 °C
SSOP	14 L SSOP 5.30 mm	PY		PY14	235 +5/-0 °C
SSOP	16 L SSOP 5.30 mm	PY		PY16	235 +5/-0 °C
SSOP	20 L SSOP 5.30 mm	PY		PY20	235 +5/-0 °C
SSOP	24 L SSOP 5.30 mm	PY		PY24	235 +5/-0 °C
SSOP	28 L SSOP 5.30 mm	PY	PV	PY28	235 +5/-0 °C
TQFP	64 L TQFP 10 x 10 x 1.0 mm	DE	TF	DE64	235 +5/-0 °C
TQFP	100 L TQFP 14 x 14 x 1.4 mm	PF		PN100	235 +5/-0 °C
TQFP	120 L TQFP 14 x 14 x 1.4 mm	PF		PN120	235 +5/-0 °C
TQFP	64 L TQFP 14 x 14 x 1.4 mm	PF		PN64	235 +5/-0 °C
TQFP	80 L TQFP 14 x 14 x 1.4 mm	PF		PN80	235 +5/-0 °C
TQFP	44 L TQFP 10 x 10 x 1.4 mm	PP	PF	PP44	235 +5/-0 °C
TQFP	64 L TQFP 10 x 10 x 1.4 mm	TF	LF	PP64	235 +5/-0 °C
TQFP	32 L TQFP 7 x 7 x 1.4 mm	PF	PR	PR32	235 +5/-0 °C
TSOP	48 L TVSOP 4.40 mm	PF		PF48	235 +5/-0 °C
TSOP	56 L TVSOP 4.40 mm	PF		PF56	235 +5/-0 °C
TSOP	32 L TSOP Type II 10.16 x 20.95 mm	PH		PH32	235 +5/-0 °C
TSOP	44 L TSOP Type II 10.16 x 18.41 mm	PH		PH44	235 +5/-0 °C
TSOP	28 L TSOP Type I 8 x 13.4 mm	PZ		PZ28	235 +5/-0 °C
TSOP	32 L TSOP Type I 8 x 13.4 mm	PZ		PZ32	235 +5/-0 °C
TSSOP	80 TVSOP 6.10mm	DF		DF80	235 +5/-0 °C
TSSOP	48 L TSSOP 6.10 mm Exposed Pad	DW		DW48	235 +5/-0 °C
TSSOP	48 L TSSOP 6.10 mm	PA		PA48	235 +5/-0 °C
TSSOP	56 L TSSOP 6.10 mm	PA		PA56	235 +5/-0 °C
TSSOP	64 L TSSOP 6.10 mm	PA		PA64	235 +5/-0 °C
TSSOP	14 L TSSOP 4.40 mm	PG		PG14	235 +5/-0 °C
TSSOP	16 L TSSOP 4.40 mm	PG		PG16	235 +5/-0 °C
TSSOP	20 L TSSOP 4.40 mm	PG	PA	PG20	235 +5/-0 °C
TSSOP	24 L TSSOP 4.40 mm	PG	PA	PG24	235 +5/-0 °C
TSSOP	8 L TSSOP 4.40 mm	PG		PG8	235 +5/-0 °C