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

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **G-0110-06 REV.1** DATE: 12/14/2001

Product Affected: All applicable plastic package (except BGA) families

Date Effective: 3/15/2002

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
- ☐ Back Mark
- ☐ Date Code
- ■ Other — Alpha suffix "F" in assembly lot number

Contact: Geoffrey Cortes
Title: Manager, Corporate Quality & Reliability
Phone #: (408) 492-8321
Fax #: (408) 727-2328
E-mail: Geoffrey.Cortes@idt.com

Attachment:: ■ Yes ☐ No
Sumitomo material datasheet

Samples: Contact the local IDT sales representative

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ■ Material
- ☐ Testing
- ☐ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

IDT will be qualifying the new EME-7351LP and EME-S351LP mold compound materials from Sumitomo. Once qualified, IDT will add these mold compound materials as qualified materials for all applicable plastic package (except BGA) families.

REV.1 This PCN is revised to include all applicable plastic package (except BGA) families

RELIABILITY/QUALIFICATION SUMMARY:

Qualification testing will verify that there is no change to the product reliability. Qualification data is available upon request.

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: _____ ☐ ***Approval for shipments prior to effective date.***

Name/Date: _____ E-Mail Address: _____

Title: _____ Phone# /Fax# : _____

CUSTOMER COMMENTS: _____

IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: _____ DATE: _____

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PCN Type: Mold compound materials, Sumitomo EME-7351LP and EME-S351LP.

Data Sheet Change: No

Detail Of Change: This change will be implemented on all applicable plastic package (except BGA) families.

Description	From	To
Mold Compound	Shinetsu KMC 182-9 KMC 184 KMC184VA Sumitomo 6300 Sumitomo 7320 series	Sumitomo EME-7351LP EME-S351LP

Conversion schedule (Estimated):

Please contact your local field sales representative for sample availability and production shipments.

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Qualification Plan: Following reliability tests will be performed per package family
Qualification data is available upon request.

	Test Methods	Sample size /# Fails
Highly Accelerated Stress Test (HAST) (100 Hrs, @130°C/85%RH,Static Bias)	EIA/JESD22-A110	45/0
Temperature Cycling, (-65°C to +150°C, 500 cyc)	MIL-STD-883, Method 1010	45/0
Life Test, (+125°C, 1000 hrs)	MIL-STD-883, Method 1005	77/0
Hi Temp Bake, (+150°C, 1000 hrs)	MIL-STD-883, Method 1008	77/0
Auto Clave (SPP), (168Hrs, @ 2ATM, 121°C)	EIA/JESD22-A102	45/0
Package Moisture Characterization (Note 1)	JEDEC J-STD-20	22/0
Internal Visual Inspection	MIL-STD-883, Method 2010	5/0
External Visual Inspection	MIL-STD-883, Method 2009	25/0
S.A.T.	JEDEC J-STD-035	10/0
X-ray Examination	Per IDT specification	45/0
Bond Pull Test	MIL-STD-883, Method 2011	5/0
Solderability Test	MIL-STD-883, Method 2003	5/0
Bake & Ball Shear Test	EIA/JESD22-B116	5/0
Physical Dimension	MIL-STD-883, Method 2016	5/0
Lead Integrity Test	MIL-STD-883, Method 2004	3/0
Resistance to Solvents	MIL-STD-883, Method 2015	3/0

Note 1: Moisture Characterization will confirm that there is no change to the Moisture Sensitivity Level.

SUMITOMO BAKELITE

SUMIKON®

EME-7351LP

BI-PHENYL RESIN
JEDEC LEVEL 1
LOW CTE
LONG SPIRAL FLOW

EME-7351LP

TYPICAL PROPERTIES:

ITEM	TEST METHOD	UNIT	VALUES
SPIRAL FLOW	SB-U-03-003	cm	100
GEL TIME (at 175°C)	SB-U-03-005	sec	25
THERMAL EXPANSION ∝1	SB-U-02-002	X 10^{-5} 1/°C	1.0
THERMAL EXPANSION ∝2	SB-U-02-002	X 10^{-5} 1/°C	4.2
Tg	SB-U-02-002	°C	135
THERMAL CONDUCTIVITY	SB-U-02-004	W/m •°C	75 x 10^{-2}
FLEXURAL STRENGTH	SB-U-01-001	N/ mm^2	
(at 25°C)			200
(at 240°C)			22
FLEXURAL MODULUS	SB-U-01-002	X 10^2 N/mm^2	
(at 25°c)			230
(at 240°C)			7.5
SPECIFIC GRAVITY	SB-U-03-018	----------	1.97
VOLUME RESISTIVITY	SB-U-00-004	Ω - cm	1 x 10^{13}
(at 150°c)			
UL FLAME CLASS	SB-U-03-003	UL-94	V-0
WATER ABSORPTION	SB-U-03-002	% weight gain	0.17
(boiling, 24 h)			
EXTRACTED Na^+	SB-U-04-043	ppm	1
EXTRACTED Cl^-	SB-U-04-043	ppm	10

TYPICAL, NOT GUARANTEED PROPERTIES

MOLDING AND POST MOLD CURE CONDITIONS:

	STANDARD	RANGE
TRANSFER PRESSURE	85 x10^6 Pa	70-120 x10^6 Pa
MOLD TEMPERATURE	175°C	165-180°C
CURE TIME (C or A)#	A/70 sec	60-120 sec
POST-MOLD CURE TEMP	175°C	170-180°C
POST-MOLD CURE TIME	6 h	4-10h

#Conventional or Auto

rev. Nov.'00

SUMITOMO BAKELITE CO., LTD.
Tennoz Parkside Building, 5-8 Higashi-Shinagawa, 2-Chome Shinagawa-ku, Tokyo 140, Japan

SUMITOMO BAKELITE

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EME-S351LP

BI-PHENYL RESIN
JEDEC LEVEL 1
LOW CTE
LOW ALPHA RAY

EME-S351LP

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Tg	SB-U-02-002	°C	135
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