

# **PRODUCT/PROCESS CHANGE NOTICE (PCN)**

PCN #: <b>G-0110-06 REV.1</b> DATE Product Affected: All applicable plastic pac (except BGA) families Date Effective: 3/15/2002		MEANS OF D Product Ma Back Mark Date Code Other	ISTINGUISHING CHANGED DEVICES: rk Alpha suffix "F" in assembly lot number	
Contact:Geoffrey CortesTitle:Manager, Corporate Quality & ReliaPhone #:(408) 492-8321Fax #:(408) 727-2328E-mail:Geoffrey.Cortes@idt.com	bility	Attachment:: Samples:	Yes No Sumitomo material datasheet Contact the local IDT sales representative	
Assembly Process mat   Equipment mat   Material fam	will be qualifying erials from Sumito erials as qualified lies. 7.1 This PCN is re	omo. Once qualif materials for all	7351LP and EME-S351LP mold compound ied, IDT will add these mold compound applicable plastic package (except BGA) all applicable plastic package (except BGA)	
<b>RELIABILITY/QUALIFICATION SUMMARY:</b> 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:	Dh	Mail Address: one# /Fax# :		
CUSTOMER COMMENTS:				
IDT ACKNOWLEDGMENT OF RECEIPT RECD. BY:		DATE:		



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

# **PRODUCT/PROCESS CHANGE NOTICE (PCN)**

## ATTACHMENT - PCN #: G-0110-06 REV.1

- **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	То
Mold Compound	Shinetsu KMC 182-9 KMC 184 KMC184VA	Sumitomo EME-7351LP EME-S351LP
	Sumitomo 6300 Sumitomo 7320 series	

#### 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<sup>®</sup>

EME-7351LP

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

# **EME-7351LP**

TYPICAL PROPERTIES:

ITEM	TEST METHOD	<u>UNIT</u>	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 <sup>-5</sup> 1/°C	1.0
THERMAL EXPANSION ∝2	SB-U-02-002	X 10 <sup>-5</sup> 1/°C	4.2
Tg	SB-U-02-002	°C	135
THERMAL CONDUCTIVITY	SB-U-02-004	W/m ∙°C	75 x 10 <sup>-2</sup>
FLEXURAL STRENGTH	SB-U-01-001	$N/mm^2$	
(at 25°C)			200
(at 240°C)			22
FLEXURAL MODULUS	SB-U-01-002	$X 10^2 \text{ N/mm}^2$	
(at 25°c)			230
(at 240°C)			7.5
SPECIFIC GRAVITY	SB-U-03-018		1.97
VOLUME RESISTIVITY	SB-U-00-004	$\Omega$ - cm	$1 \ge 10^{13}$
(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 <sup>+</sup>	SB-U-04-043	ppm	1
EXTRACTED CI	SB-U-04-043	ppm	10
		TYPICAL, NOT G	<b>UARANTEED PROPERTIES</b>

### MOLDING AND POST MOLD CURE CONDITIONS:

	<b>STANDARD</b>	<u>RANGE</u>
TRANSFER PRESSURE	85 x10 <sup>6</sup> Pa	70-120 x10 <sup>6</sup> 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

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

# SUMITOMO BAKELITE SUMIKON<sup>®</sup>

EME-S351LP

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

# EME-S351LP

TYPICAL PROPERTIES:

ITEM	TEST METHOD	<u>UNIT</u>	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 <sup>-5</sup> 1/°C	1.0
THERMAL EXPANSION $\propto 2$	SB-U-02-002	X 10 <sup>-5</sup> 1/°C	4.2
Tg	SB-U-02-002	°C	135
THERMAL CONDUCTIVITY	SB-U-02-004	W/m ∙°C	75 x 10 <sup>-2</sup>
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EXTRACTED Cl <sup>-</sup>	SB-U-04-043	ppm	10
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