



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	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:

<u>ITEM</u>	<u>TEST METHOD</u>	<u>UNIT</u>	<u>VALUES</u>
SPIRAL FLOW	SB-U-03-003	cm	100
GEL TIME (at 175°C)	SB-U-03-005	sec	25
THERMAL EXPANSION α_1	SB-U-02-002	$X 10^{-5} 1/^\circ C$	1.0
THERMAL EXPANSION α_2	SB-U-02-002	$X 10^{-5} 1/^\circ C$	4.2
T _g	SB-U-02-002	°C	135
THERMAL CONDUCTIVITY	SB-U-02-004	W/m •°C	75×10^{-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	1×10^{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:

	<u>STANDARD</u>	<u>RANGE</u>
TRANSFER PRESSURE	85×10^6 Pa	$70-120 \times 10^6$ 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

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SUMITOMO BAKELITE

SUMIKON[®]

EME-S351LP

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

EME-S351LP

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THERMAL EXPANSION α_2	SB-U-02-002	$X 10^{-5} 1/^\circ C$	4.2
T _g	SB-U-02-002	°C	135
THERMAL CONDUCTIVITY	SB-U-02-004	W/m •°C	75×10^{-2}
FLEXURAL STRENGTH	SB-U-01-001	N/mm ²	
(at 25°C)			200
(at 240°C)			22
FLEXURAL MODULUS	SB-U-01-002	$X 10^2 N/mm^2$	
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