



PRODUCT BULLETIN
Generic Copy

30-AUG-2002

SUBJECT: ON Semiconductor Product Bulletin #12533

TITLE: Sumitomo Mold Compound Change on TSSOP and Zener Array Packages

EFFECTIVE DATE: 30-Aug-2002

AFFECTED PRODUCT DIVISION:

Bipolar Discretes Products Div
MOS Power Products Div
Broadband Products Div

ADDITIONAL RELIABILITY DATA: None

SAMPLES: No

FOR ANY QUESTIONS CONCERNING THIS NOTIFICATION:

Contact Sales Office or Mark Wasilewski, RYGF20@onsemi.com

DISCLAIMER:

ON Semiconductor considers this change approved unless specific conditions of acceptance are provided in writing. To do so, contact your local ON Semiconductor sales office.

DESCRIPTION AND PURPOSE:

ON Semiconductor would like to inform customers of an epoxy mold compound change to a few certain devices that use particle Phosphorous as a flame retardant agent.

The actual notification from our supplier (Sumitomo) is:

Sumitomo Bakelite strives to provide our customers with the best quality products and services. We are issuing this Product Change Notification (PCN) to our customers as part of that process.

Description:

Change From Particled Phosphorous Flame Retardant Agent To Organic Type Phosphorus Flame Retardant Agent.

Development:

As a result of this change, the following performance improvements are anticipated:

- *Increased adhesion to various surfaces such as SiN, Cu, Ag and PPF leadframe;
- *Reduced chance of lead electrical shorts.

Through our customers, Sumitomo Bakelite has received reports of a small number of field returns that appear to show lead to lead shorts in devices that use a Particled Phosphorous Flame Retardant Agent. Our analysis has not yet demonstrated the root cause of the field returns, but data developed to date indicates that the shorts may be related to a particle of the Particled Phosphorous Flame Retardant Agent getting lodged between leads, in combination with a very high temperature or high humidity environment. The occurrence of these shorts is very rare.

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Change:

Sumitomo Bakelite's flame retardant system will be made with an Organic Type Phosphorous Flame Retardant Agent, for all EME-xxxxU series Epoxy Molding Compounds.

Reliability Qualification testing with alternate compound (G700) included Temperature Cycle - TC (500cy, -65C to +150C), Highly Accelerated Stress Testing - HAST (96hrs, 130C, 85%RH), 260C Preconditioning and In-Process quality monitors like Scanning Acoustic Tomography (SAT) and Wire Bond Ball Shear with no failures.

AFFECTED DEVICE LIST:**PART**

MC100EL01DT, MC100EL01DTR2, MC100EL04DT
MC100EL04DTR2, MC100EL05DT, MC100EL05DTR2
MC100EL07DT, MC100EL07DTR2, MC100EL11DT
MC100EL11DTR2, MC100EL12DT, MC100EL12DTR2
MC100EL1648DT, MC100EL1648DTR2, MC100EL16DT
MC100EL16DTR2, MC100EL31DT, MC100EL31DTR2
MC100EL32DT, MC100EL32DTR2, MC100EL33DT
MC100EL33DTR2, MC100EL35DT, MC100EL35DTR2
MC100EL51DT, MC100EL51DTR2, MC100EL52DT
MC100EL52DTR2, MC100EL58DT, MC100EL58DTR2
MC100ELT20DT, MC100ELT20DTR2, MC100ELT21DT
MC100ELT21DTR2, MC100ELT22DT, MC100ELT22DTR2
MC100ELT23DT, MC100ELT23DTR2, MC100ELT24DT
MC100ELT24DTR2, MC100ELT25DT, MC100ELT25DTR2
MC100ELT28DT, MC100ELT28DTR2, MC100EP01DT
MC100EP01DTR2, MC100EP05DT, MC100EP05DTR2
MC100EP08DT, MC100EP08DTR2, MC100EP11DT
MC100EP11DTR2, MC100EP16DT, MC100EP16DTR2
MC100EP16FDT, MC100EP16FDTR2, MC100EP16TDT
MC100EP16TDTR2, MC100EP16VADT, MC100EP16VADTR2
MC100EP16VBDT, MC100EP16VBDTR2, MC100EP16VCDT
MC100EP16VCDTR2, MC100EP16VSDT, MC100EP16VSDTR2
MC100EP16VTD, MC100EP16VTDTR2, MC100EP31DT
MC100EP31DTR2, MC100EP32DT, MC100EP32DTR2
MC100EP33DT, MC100EP33DTR2, MC100EP35DT
MC100EP35DTR2, MC100EP51DT, MC100EP51DTR2
MC100EP52DT, MC100EP52DTR2, MC100EP58DT
MC100EP58DTR2, MC100EPT20DT, MC100EPT20DTR2
MC100EPT21DT, MC100EPT21DTR2, MC100EPT22DT
MC100EPT22DTR2, MC100EPT23DT, MC100EPT23DTR2
MC100EPT24DT, MC100EPT24DTR2, MC100EPT25DT
MC100EPT25DTR2, MC100EPT26DT, MC100EPT26DTR2
MC100LVEL01DT, MC100LVEL01DTR2, MC100LVEL05DT
MC100LVEL05DTR2, MC100LVEL11DT, MC100LVEL11DTR2
MC100LVEL12DT, MC100LVEL12DTR2, MC100LVEL16DT
MC100LVEL16DTR2, MC100LVEL16VSDT, MC100LVEL16VSDTR
MC100LVEL31DT, MC100LVEL31DTR2, MC100LVEL32DT
MC100LVEL32DTR2, MC100LVEL33DT, MC100LVEL33DTR2
MC100LVEL51DT, MC100LVEL51DTR2, MC100LVEL58DT
MC100LVEL58DTR2, MC100LVELT22DT, MC100LVELT22DTR2
MC100LVELT23DT, MC100LVELT23DTR2, MC100LVEP11DT
MC100LVEP11DTR2, MC100LVEP16DT, MC100LVEP16DTR2

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MC10EL01DT, MC10EL01DTR2, MC10EL04DT
MC10EL04DTR2, MC10EL05DT, MC10EL05DTR2
MC10EL07DT, MC10EL07DTR2, MC10EL11DT
MC10EL11DTR2, MC10EL12DT, MC10EL12DTR2
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MC10EP05DTR2, MC10EP08DT, MC10EP08DTR2
MC10EP11DT, MC10EP11DTR2, MC10EP16DT
MC10EP16DTR2, MC10EP16TDT, MC10EP16TDTR2
MC10EP16VADT, MC10EP16VADTR2, MC10EP31DT
MC10EP31DTR2, MC10EP32DT, MC10EP32DTR2
MC10EP33DT, MC10EP33DTR2, MC10EP35DT
MC10EP35DTR2, MC10EP51DT, MC10EP51DTR2
MC10EP52DT, MC10EP52DTR2, MC10EP58DT
MC10EP58DTR2, MC10EP89DT, MC10EP89DTR2
MC10EPT20DT, MC10EPT20DTR2, MC10LVEP11DT
MC10LVEP11DTR2, MC10LVEP16DT, MC10LVEP16DTR2
NB100ELT23LDT, NB100ELT23LDTR2, NTQD6866R2
NTQD6968, NTQD6968R2, NTQS6463R2
NZMM7V0T4, XTQD6866R2