Mold Compound Change for Analog SOIC Packages

Freescale, the Freescale logo, AltiVec, C-5, CodeTEST, CodeWarrior, ColdFire, C-Ware, t
he Energy Efficient Solutions logo, mobileGT, PowerQUICC, QorIQ, StarCore and Symphony
are trademarks of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. BeeKit, BeeStack,
ColdFire+, CoreNet, Flexis, Kinetis, MXC, Platform in a Package, Processor Expert, QorIQ
Qonverge, Qorivva, QUICC Engine, SMARTMOS, TurboLink, VortiQa and Xtrinsic are trademarks
of Freescale Semiconductor, Inc. All other product or service names are the property
of their respective owners. © 2011 Freescale Semiconductor, Inc.

Mold Compound Change for Analog SOIC Packages

- Freescale is changing the mold compound for SOIC package family along with the change to Cu wire bond
  - **Old** mold compound: Hitachi HF13 (introduced in 2003); **New** Mold Compound: Sumitomo G630AY (introduced in 2012)
  - G630AY is in production at Freescale for high-thermal SOIC package family
  - Both HF13 and G630AY have demonstrated to meet Cu wire qualification requirements
- Reasons for change to G630AY mold compound
  - Longer material life cycle compared to HF13.
  - Improved mechanical robustness with G630AY
    - Improved adhesion to the lead-frame results in reduced post stress delamination, which addresses feedback from several Freescale customers
  - Mold Compound is available from two factories (assurance of supply)

freescale™

Freescale, the Freescale logo, AltiVec, C-5, CodeTEST, CodeWarrior, ColdFire, C-Ware, the Energy Efficient Solutions logo, mobileGT, PowerQUICC, QorIQ, StarCore and Symphony are trademarks of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. BeeKit, BeeStack, ColdFire+, CoreNet, Flexis, Kinetis, MXC, Platform in a Package, Processor Expert, QorIQ Qonverge, Qorivva, QUICC Engine, SMARTMOS, TurboLink, VortiQa and Xtrinsic are trademarks of Freescale Semiconductor, Inc. All other product or service names are the property of their respective owners. © 2011 Freescale Semiconductor, Inc.

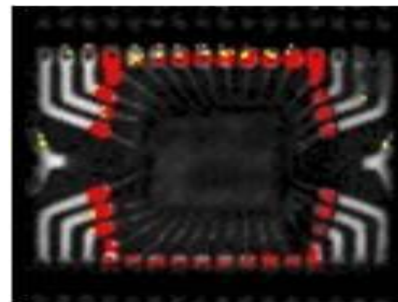
Mold Compound Change for Analog SOIC Packages

Status as of 10/22/13

Mold Compound	Total Lots Passing (-50/150 C)		
	1000 TC	1500 TC	2000 TC
HF13	25/25	15/15	11/11
G630AY	14/14	11/11	8/8

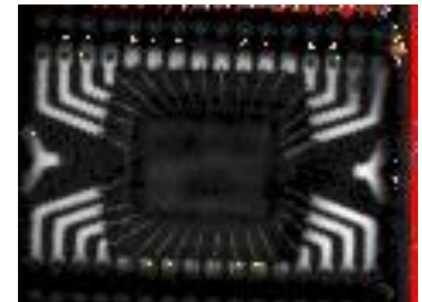
Data from ongoing qual testing of multiple products in SOIC package family.

HF13



Post-2000 T/C CSAM at Lead Interface

G630AY



Post-2000 T/C CSAM at Lead Interface

freescale™

Freescale, the Freescale logo, AltiVec, C-5, CodeTEST, CodeWarrior, ColdFire, C-Ware, the Energy Efficient Solutions logo, mobileGT, PowerQUICC, QorIQ, StarCore and Symphony are trademarks of Freescale Semiconductor, Inc., Reg. U.S. Pat. & Tm. Off. BeeKit, BeeStack, ColdFire+, CoreNet, Flexis, Kinetis, MXC, Platform in a Package, Processor Expert, QorIQ Qonverge, Qorivva, QUICC Engine, SMARTMOS, TurboLink, VortiQa and Xtrinsic are trademarks of Freescale Semiconductor, Inc. All other product or service names are the property of their respective owners. © 2011 Freescale Semiconductor, Inc.

freescale™