Product Change Notification / JAON-26WRWL960

Date:

28-Feb-2022

Product Category:

P-Channel Enhancement Mode MOSFETs

PCN Type:

Manufacturing Change

Notification Subject:

CCB 4884 Final Notice: Qualification of CEL-8240 GS as a new mold compound material for selected Supertex TP0604N3-G catalog part number (CPN) available in 3L TO-92 package assembled at CRTK assembly site.

Affected CPNs:

JAON-26WRWL960_Affected_CPN_02282022.pdf
JAON-26WRWL960_Affected_CPN_02282022.csv

Notification Text:

PCN Status: Final Notification

PCN Type: Manufacturing Change

Microchip Parts Affected: Please open one of the files found in the Affected CPNs section.
Note: For your convenience Microchip includes identical files in two formats (.pdf and .xls)

Description of Change: Qualification of CEL-8240 GS as a new mold compound material for selected Supertex TP0604N3-G catalog part number (CPN) available in 3L TO-92 package assembled at CRTK assembly site.

Pre and Post Change Summary:

	Pre Change		Post Change
Assembly Site	Cirtek Electronics Corporation (CRTK)	Greatek Electronic Inc. (GTK)	Cirtek Electronics Corporation (CRTK)
Wire Material	Au	Au	Au
Die Attach Material	84-1LMISR4	8060T	84-1LMISR4
Molding Compound Material	EME-G600	G600F	CEL-8240 GS
Lead Frame Material	A194	CDA194	A194
Package Layout and Pin Configuration	See attached pre and post change comparison		

Note: * C194, A194 or CDA194 Lead frame material are the same, it is just a MCHP internal labelling difference.

Impacts to Data Sheet: None

Change Impact None

Reason for Change: To improve productivity and on-time delivery performance by qualifying a new mold compound material at CTRK assembly site.

Change Implementation Status: In Progress

Estimated First Ship Date: March 31, 2022 (date code: 2214)

Note: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	October 2021					>	February 2022					March 2022			
Workweek	41	42	43	44	45		6	7	8	9	10	11	12	13	14
Initial PCN Issue Date				x											
Qual Report Availability											X				
Final PCN Issue Date											X				
Estimated															X

Implementation Date														

Method to Identify Change: Traceability code

Qualification Report: Please open the attachments included with this PCN labeled as PCN_#_Qual_Report.

Revision History:
October 30, 2021: Issued initial notification.
February 28, 2022: Issued final notification. Attached the Qualification Report. Provided estimated first ship date to be on March 31, 2022.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachments:

PCN_JAON-26WRWL960_QUAL_REPORT.pdf

Please contact your local Microchip sales office with questions or concerns regarding this notification.

Terms and Conditions:

If you wish to receive Microchip PCNs via email please register for our PCN email service at our PCN home page select register then fill in the required fields. You will find instructions about registering for Microchips PCN email service in the PCN FAQ section.

If you wish to change your PCN profile, including opt out, please go to the PCN home page select login and sign into your myMicrochip account. Select a profile option from the left navigation bar and make the applicable selections.

Affected Catalog Part Numbers (CPN)

TP0604N3-G

QUALIFICATION REPORT SUMMARY

RELIABILITY LABORATORY

PCN#: JAON-26WRWL960

Date
February 18, 2022

Qualification of CEL-8240 GS as a new mold compound material for selected Supertex TP0604N3-G catalog part number (CPN) available in 3L TO-92 package assembled at CRTK assembly site.

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PACKAGE QUALIFICATION REPORT

Purpose	**Qualification of CEL-8240 GS as a new mold compound material for selected Supertex TP0604N3-G catalog part number (CPN) available in 3L TO-92 package assembled at CRTK assembly site.**
CN	E000083444
QUAL ID	R2101195 (Rev. A)
MP CODE	630339A2XG00
Part No.	TP0604N3-G
Bonding No.	BD-000286 Rev 02
CCB No.	4884
Package	
Type	3L-TO-92
Lead Frame	
Paddle size	140 x 100 mils
Material	ALLOY 194
Surface	Ag
Process	Stamping
Lead Lock	No
Part Number	TO03NH2105
Die attach material	
Epoxy	84-1LMISR4
Wire	Au wire
Mold Compound	CEL-8240 GS
Plating Composition	Matte Sn

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PACKAGE QUALIFICATION REPORT

Manufacturing Information

Assembly Lot No.	Wafer Lot No.	Date Code
CRTK223300001.000	SPTX915142175.800	21451AG
CRTK223300002.000	SPTX915142175.800	21451B7
CRTK223300003.000	SPTX915142175.800	21451B8

Result [X] Pass [ ] Fail [ ] _____

3L-TO-92 assembled by CRTK pass reliability test per QCI-39000.

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
Electrical Test	**Electrical Test:** +25°C System: ETS300	JESD22-A113	693(0)	693		Good Devices
Temp Cycle	**Stress Condition:** -65°C to +150°C, 500 Cycles System: TABAI ESPEC TSA-70H Inspection: External crack inspection all units under 40X Optical magnification	JESD22-A104		231		
	Electrical Test: +25°C System: ETS300		231(0)	0/231	Pass	77 units / lot
	Bond Strength:		15(0)	0/15	Pass	
	Wire Pull (> 5.00 grams)		15(0)	0/15	Pass	
	Bond Shear (> 25.00 grams)					
UNBIASED-HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. System: HAST 6000X	JESD22-A118		231		
	Electrical Test: +25°C System: ETS300		231(0)	0/231	Pass	77 units / lot
HAST	**Stress Condition:** +130°C/85%RH, 96 hrs. **Bias Volt:** 30 Volts System: HAST 6000X	JESD22-A110		231		
	Electrical Test: +25°C System: ETS300		231(0)	0/231	Pass	77 units / lot

PACKAGE QUALIFICATION REPORT

Test Number (Reference)	Test Condition	Standard/ Method	Qty. (Acc.)	Def/SS.	Result	Remarks
High Temperature Storage Life	**Stress Condition:** Bake 175°C, 504 hrs System: SHEL LAB **Electrical Test:** +25°C System: ETS300	JESD22-A103	 45(0)	45 0/45	 Pass	45 units
Solderability Temp 245°C	**Steam Aging:** Temp 93°C,8Hrs System: SAS-3000 **Solder Dipping**: Solder Temp.245°C Solder material: Pb Free Sn 95.5Ag3.9 Cu0.6 System: ERSA RA 2200D Visual Inspection: External Visual Inspection	JESD22B-102E	22(0)	22 22 0/22	Pass	
Wire sweep	Wire sweep Inspection 15 Wires / lot	-	45(0) Wires	0/45	Pass	
Physical Dimensions	Physical Dimension, 10 units from 1 lot	JESD22-B100/B108	30(0) Units	0/30	Pass	
Lead Integrity	15 Leads from a minimum of 5 units, 1 lot. System: Strain	JESD22-B105D	15(0) Leads	0/15	Pass	
Bond Strength Data Assembly	Wire Pull (> 5.00 grams) Bond Shear (> 25.00 grams)	Mil. Std. 883-2011	30(0) Wires 30(0) bonds	0/30 0/30	Pass Pass	