PRODUCT ADVISORY NOTICE

Data Sheet Specification Change for Listed Intersil Products ISL95820CRTZ* and ISL95820IRTZ*

Refer to: PA13055

Date: October 16, 2013



October 16, 2013

To: Our Valued Intersil Customer

Subject: Data Sheet Specification Change for Intersil Products ISL95820CRTZ* and ISL95820IRTZ*

This notice is to inform you that Intersil has updated the data sheet specification for the listed ISL95820CRTZ* and ISL95820IRTZ* products. The changes to the *Absolute Maximum Rating* and *Recommended Operating Conditions* sections align the data sheet with the product characteristics. Details regarding the change are contained on the following pages. The updated data sheet is available upon request.

Products affected:

ISL95820CRTZ	ISL95820CRTZ-T	ISL95820IRTZ	ISL95820IRTZ-T

There have been no changes made to the die/silicon. There will be no change in external marking of the packaged parts. Parts affected by this change are identifiable via Intersil's internal traceability system.

Intersil will take all necessary actions to conform to agreed upon customer requirements and to ensure the continued high quality and reliability of Intersil products being supplied. Customers may expect to continue receiving product processed to the same established conditions and systems used for manufacturing of material supplied today.

If you have concerns with this notice, Intersil must hear from you promptly. Please contact the nearest Intersil Sales Office or call the Intersil Corporate line at 1-888-468-3774, in the United States, or 1-321-724-7143 outside of the United States.

Regards,

Jeffrey Touvell Intersil Corporation

frey Towell

PA13055

CC: K. Yard J. Wei W. Schroeder



PA13055 Data Sheet Updates

From:

ISL95820

Absolute Maximum Ratings
VDD0.3V to +7V
VIN +28V
VCCP+15V
BOOT0.3V to +36V
UGATEV _{PHASE} - 0.3V _{DC} to V _{BOOT} + 0.3V
V _{PHASE} - 3.5V (<100ns Pulse Width, 2μJ) to V _{BOOT} + 0.3V
LGATE GND - 0.3V _{DC} to V _{VCCP} + 0.3V
GND - 5V (<100ns Pulse Width, 2µJ) to V _{VCCP} + 0.3V
PHASE GND - 0.3V _{DC} to 25V _{DC}
GND - 8V (<400ns, 20µJ) to 30V (<200ns, V _{BOOT} - GND < 36V)
Open Drain Outputs, PGOOD, VR_HOT#, ALERT#0.3V to +7V
All Other Pins

Thermal Information

Thermal Resistance (Typical)	$\theta_{JA}(^{\circ}C/W)$	θ _{JC} (°C/W)
40 Ld TQFN Package (Notes 4, 5)	31	3
Maximum Junction Temperature		+150°C
Maximum Storage Temperature Range	6!	5°C to +150°C
Maximum Junction Temperature (Plastic Pac	kage)	+150°C
Storage Temperature Range	6!	5°C to +150°C

Recommended Operating Conditions

Supply Voltage, VDD	+5V ±5%
Input Voltage, VIN (Note 6)	+4.5V to 20.0V
Driver Supply Voltage, VCCP (Note 6)	+4.5V to +13.2V
Ambient Temperature	
CRTZ	0°C to +70°C
IRTZ	40°C to +85°C
Junction Temperature	
CRTZ	0°C to +125°C
IRTZ	40°C to +125°C

CAUTION: Do not operate at or near the maximum ratings listed for extended periods of time. Exposure to such conditions may adversely impact product reliability and result in failures not covered by warranty.

NOTES:

- 6 JA is measured in free air with the component mounted on a high effective thermal conductivity test board with "direct attach" features. See Tech Brief 18379.
- 5. For θ_{JC} , the "case temp" location is the center of the exposed metal pad on the package underside.
- It is recommended that VIN+VCCP not exceed 24V nominally. For VCCP < 7V, Diode Emulation Mode (DEM) must be disabled using the PROG2 pin
 programming resistor.

PA13055 Data Sheet Updates

<u>To:</u>

ISL95820

Absolute Maximum Ratings VDD. -0.3V to +7V VIN +28V VCCP. +15V BOOT -0.3V to VCCP + 15V UGATE. VPHASE - 0.3V pc to VBOOT + 0.3V VPHASE - 3.5V (<100ns Pulse Width, 2µJ) to VBOOT + 0.3V</td> LGATE. GND - 0.3V pc to Vyccp + 0.3V PHASE GND - 0.3V pc to 25V pc GND - 8V (<400ns, 20µJ) to 30V (<200ns)</td> Open Drain Outputs, PGOOD, VR_HOT#, ALERT#. -0.3V to VDD + 0.3V All Other Pins -0.3V to VDD + 0.3V

Thermal Information

Thermal Resistance (Typical)	θ_{JA} (°C/W)	$\theta_{JC}(^{\circ}C/W)$
40 Ld TQFN Package (Notes 4, 5)	31	3
Maximum Junction Temperature		+150°C
Maximum Storage Temperature Range	65	°C to +150°C
Maximum Junction Temperature (Plastic Pac	kage)	+150°C
Storage Temperature Range	65	°C to +150°C

Recommended Operating Conditions

Supply Voltage, VDD	%
Input Voltage, VIN+4.5V to +13.2	V
Driver Supply Voltage, VCCP (Note 6)+4.5V to +13.2	٧
Ambient Temperature	
CRTZ 0°C to +70°C	C
IRTZ40°C to +85°	С
Junction Temperature	
CRTZ0°C to +125°	C
IRT7 -40°C to +125°	c

CAUTION: Do not operate at or near the maximum ratings listed for extended periods of time. Exposure to such conditions may adversely impact product reliability and result in failures not covered by warranty.

NOTES:

- 6 JA is measured in free air with the component mounted on a high effective thermal conductivity test board with "direct attach" features. See Tech Brief <u>TB379</u>.
- 5. For θ_{JC} , the "case temp" location is the center of the exposed metal pad on the package underside.
- 6. For VCCP < 7V, Diode Emulation Mode (DEM) must be disabled using the PROG2 pin programming resistor. Note that V_{BOOT}(max) = V_{VCCP} + V_{VIN} + V_{PHASE-ON-overshoot}. The PHASE node ON-state overshoot is due to ringing on the PHASE pin due to the upper FET turning on, pulling the PHASE node from ground up to V^{VIN}. The overshoot is a function of V_{VIN}. To comply with BOOT pin Absolute Maximum Rating, which is with respect to VCCP, it is recommended that VIN not exceed 13.2V, regardless of VCCP.

