
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

PA13055

CC: K. Yard J. Wei W. Schroeder

PA13055 Data Sheet Updates

From:

ISL95820

Absolute Maximum Ratings

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

Thermal Information

Thermal Resistance (Typical)	θ_{JA} (°C/W)	θ_{JC} (°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 Package)	+150°C	
Storage Temperature Range	-65°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:

- θ_{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 [TB379](#).
- 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

To:

ISL95820

Absolute Maximum Ratings

VDD	-0.3V to +7V
VIN	+28V
VCCP	+15V
BOOT	-0.3V to VCCP + 15V
UGATE	V _{PHASE} - 0.3V _{DC} to V _{BOOT} + 0.3V
LGATE	V _{PHASE} - 3.5V (<100ns Pulse Width, 2μJ) to V _{BOOT} + 0.3V
PHASE	GND - 0.3V _{DC} to V _{VCCP} + 0.3V
Open Drain Outputs, PGOOD, VR_HOT#, ALERT#	GND - 0.3V _{DC} to 25V _{DC}
All Other Pins	GND - 8V (<400ns, 20μJ) to 30V (<200ns)
	-0.3V to +7V
	-0.3V to VDD + 0.3V

Thermal Information

Thermal Resistance (Typical)	θ_{JA} (°C/W)	θ_{JC} (°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 Package)	+150°C	
Storage Temperature Range	-65°C to +150°C	

Recommended Operating Conditions

Supply Voltage, VDD	+5V ±5%
Input Voltage, VIN	+4.5V to +13.2V
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:

- θ_{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 [TB379](#).
- For θ_{JC} , the "case temp" location is the center of the exposed metal pad on the package underside.
- 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.