ICR International Rectifier

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Process Change Notification

Date: **Tuesday, April 14, 2015**
PCR Reference: **532**
PCN Reference: **532-PCN30-Public**

To Our Value Customer:

As always we appreciate your use of International Rectifier semiconductor products. Our commitment to customer satisfaction and continuous improvement is demonstrated by our change plans to enhance capacity, quality and reliability. This notice is to inform you of the following changes.

We would like to express our sincere appreciation for your cooperation regarding the following changes, and IR will work closely with you to support your requirements during this transition.

Type of Change Notification:

Leadframe change for the assembly of SOIC8L-HVIC products

Description of Change:

Leadframe change for the assembly of SOIC8L-HVIC products
There was a major fire in Possehl Leadframe facility in Malacca, Malaysia last Feb 27'15. Possehl supplies IR Subcon Carsem with some of the stamped leadframe including SOIC8L 95x140 LF (Carsem PN 437392, IR PN 44-0868) and the three plating lines were destroyed. The buffer inventory in Possehl was damaged and IR/Carsem has no inventory on-hand to support the current demand.

Part of contingency plan is to use the available Etched leadframe from DCI. DCI is our Subcon - Carsem's qualified LF supplier and also qualified supplier for many IR products

Material Change

Material	FROM	TO	Impact on Form, Fit or Function
Leadframe	Cu-spot Ag 95x140 mils, Possehl Stamped LF	Cu-spot Ag 95x140 mils, DCI Etched LF	None

NOTE: BOM and Process Flow are unchanged with the exception of Leadframe- Additional information available on request

Reason for the Change:

To support the current demand, due to Possehl Leadframe facility disaster in Malacca, Malaysia and provide an alternaitve 2nd source lead frame supplier.

Effect Date:

Friday, May 01, 2015

International Rectifier will consider this change approved and will implement it by the effective date unless specific conditions of acceptance or data requests are provided in writing within 30 days of receipt of this notice. Please submit conditions of acceptance and data requests to the PCN coordinator listed at the end of this notice.

Impact of Change:

There is no impact expected and the leadframe change will meet the same parametric and qualification level as the existing products. International Rectifier will consider this change effective and start shipment of product by May 1st, 2015. In case your customer has any questions or concerns please contact the PCN Coordinator or Technical contact directly.

Method of Identifying Changed Product:

Lot information

Products Affected:

IR Part	Description
111-4042PBF	
111-4095PBF	
98-0065	
98-0066	
98-0086PBF	
98-0170PBF	
98-0231	
98-0237PBF	
98-0285PBF	
98-0343	
98-0457PBF	
98-0459PBF	
98-0476PBF	
98-0490PBF	

98-0505PBF	
98-0506PBF	
98-1041PBF	
AUIR2085STR	Automotive qualified, 100V high speed self oscillating 50% duty cycle half bridge driver
IR1150ISTR	
IR1150ISTRPBF	
IR1150STRPBF	
IR11671ASPBF	SmartRectifier Control IC
IR11671ASTRPBF	SmartRectifier Control IC
IR11672ASPBF	SmartRectifier Control IC
IR11672ASTRPBF	SmartRectifier Control IC
IR1167ASTRPBF	SmartRectifier Control IC
IR1167BSTRPBF	SmartRectifier Control IC
IR11682SPBF	Dual Smartrectifier Driver IC
IR11682STRPBF	Dual Smartrectifier Driver IC
IR1168SPBF	Dual Smartrectifier Driver IC
IR1168STRPBF	Dual Smartrectifier Driver IC
IR2011SPBF	High and Low Side Driver in a 8-Lead SOIC package
IR2011STRPBF	High and Low Side Driver in a 8-Lead SOIC package
IR2085STRPBF	High Speed 100V Self Oscillating 50% Duty Cycle Half Bridge Driver in a SO-8 package
IR2101SPBF	High and Low Side Driver, Noninverting Inputs in a 8-lead SOIC package
IR2101STRPBF	High and Low Side Driver, Noninverting Inputs in a 8-lead SOIC package
IR2102SPBF	High and Low Side Driver, Inverting Inputs in a 8-lead SOIC package
IR2102STRPBF	High and Low Side Driver, Inverting Inputs in a 8-lead SOIC package
IR2103SPBF	Half Bridge Driver, Separate High and Low Side Inputs, Inverting Low Side Input, Fixed 520ns Deadtime in a 8-lead SOIC package
IR2103STRPBF	Half Bridge Driver, Separate High and Low Side Inputs, Inverting Low Side Input, Fixed 520ns Deadtime in a 8-lead SOIC package
IR2104SPBF	Half Bridge Driver, Single Input Plus Inverting Shutdown Pin, Fixed 520ns Deadtime in a 8-lead SOIC package
IR2104STRPBF	Half Bridge Driver, Single Input Plus Inverting Shutdown Pin, Fixed 520ns Deadtime in a 8-lead SOIC package
IR2106SPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs in a 8-lead SOIC package
IR2106STRPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs in a 8-lead SOIC package
IR2108SPBF	Half Bridge Driver, Soft Turn-On, Separate High and Low Side Inputs, Fixed 500ns Deadtime in a 8-lead SOIC package
IR2108STRPBF	Half Bridge Driver, Soft Turn-On, Separate High and Low Side Inputs, Fixed 500ns Deadtime in a 8-lead SOIC package
IR21091SPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Programmable 0.5-5us Deadtime in a 8-lead SOIC package
IR21091STRPBF	600V .120A SOIC
IR2109SPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 500ns Deadtime in a 8-lead SOIC package

IR2109STRPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 500ns Deadtime in a 8-lead SOIC package
IR2111SPBF	Half Bridge Driver, Fixed 650ns Deadtime in a 8-lead SOIC package
IR2111STRPBF	Half Bridge Driver, Fixed 650ns Deadtime in a 8-lead SOIC package
IR2117SPBF	Single High Side Driver, Noninverting Input in a 8-lead SOIC package
IR2117STRPBF	Single High Side Driver, Noninverting Input in a 8-lead SOIC package
IR2118SPBF	Single High Side Driver, Inverting Input in a 8-lead SOIC package
IR2118STRPBF	Single High Side Driver, Inverting Input in a 8-lead SOIC package
IR21271SPBF	Single High Side Driver, Noninverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR21271STRPBF	Single High Side Driver, Noninverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR2127SPBF	Single High Side Driver, Noninverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR2127STRPBF	Single High Side Driver, Noninverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR2128SPBF	Single High Side Driver, Inverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR2128STRPBF	Single High Side Driver, Inverting Inputs, Current Sensing, Overcurent Detection and Shutdown Fault Output in a 8-lead SOIC package
IR21531SPBF	Half Bridge Driver, LO In Phase with RT, Programmable Oscillating Frequency, 0.6us Deadtime in a 8-lead SOIC package and different phase
IR21531STRPBF	Half Bridge Driver, LO In Phase with RT, Programmable Oscillating Frequency, 0.6us Deadtime in a 8-lead SOIC package and different phase
IR2153SPBF	Half Bridge Driver, LO In Phase with RT, Programmable Oscillating Frequency, 0.6us Deadtime in a 8-lead SOIC package and different phase
IR2153STRPBF	Half Bridge Driver, LO In Phase with RT, Programmable Oscillating Frequency, 0.6us Deadtime in a 8-lead SOIC package and different phase
IR2161SPBF	Halogen Converter Control IC in a 8-lead SOIC package. Features Auto Resetting Short Circuit Protection, Auto Resetting Overload Protection, Overtemperature Protection, Phase Cut Dimmable, Adaptive Deadtime, Output Voltage Shift Compensation and Softstar
IR2161STRPBF	Halogen Converter Control IC in a 8-lead SOIC package. Features Auto Resetting Short Circuit Protection, Auto Resetting Overload Protection, Overtemperature Protection, Phase Cut Dimmable, Adaptive Deadtime, Output Voltage Shift Compensation and Softstar
IR2172SPBF	IR2172S is not recommended for new designs.
IR2175SPBF	Linear Current Sensing IC in a 8-lead SOIC package
IR2175STRPBF	Linear Current Sensing IC in a 8-lead SOIC package
IR2181SPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, Separate High and Low Side Inputs in a 8-lead SOIC package
IR2181STRPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, Separate High and Low Side Inputs in a 8-lead SOIC package
IR2183SPBF	Half Bridge Driver, SoftTurn-On, Low Side Inverting Input, Separate High and Low Side Input, 500ns Deadtime in a 8-lead SOIC package
IR2183STRPBF	Half Bridge Driver, SoftTurn-On, Low Side Inverting Input, Separate High and Low Side Input, 500ns Deadtime in a 8-lead SOIC package
IR2184SPBF	Half Bridge Driver, SoftTurn-On, Single Input Plus Inverting Shut-Down, 500ns Deadtime in a 8-lead SOIC package

IR2184STRPBF	Half Bridge Driver, SoftTurn-On, Single Input Plus Inverting Shut-Down, 500ns Deadtime in a 8-lead SOIC package
IR2301SPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs in a 8-lead SOIC package
IR2301STRPBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs in a 8-lead SOIC package
IR2302SPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 500ns Deadtime in a 8-lead SOIC package
IR2302STRPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 500ns Deadtime in a 8-lead SOIC package
IR2308SPBF	High Voltage and High Speed power MOSFET and IGBT Half Bridge Driver in a 8-lead SOIC package
IR2308STRPBF	High Voltage and High Speed power MOSFET and IGBT Half Bridge Driver in a 8-lead SOIC package
IR2520DSPBF	600V Ballast Controller IC with Adaptive Zero-Voltage Switching, Internal Crest Factor Over-Current Protection and an Integrated Bootstrap Diode in a 8-Pin SOIC package.
IR2520DSTRPBF	600V Ballast Controller IC with Adaptive Zero-Voltage Switching, Internal Crest Factor Over-Current Protection and an Integrated Bootstrap Diode in a 8-Pin SOIC package.
IR25600SPBF	
IR25600STRPBF	
IR25602SPBF	
IR25602STRPBF	
IR25603SPBF	
IR25603STRPBF	
IR25604SPBF	
IR25604STRPBF	
IR25606SPBF	
IR25606STRPBF	
IR4426SPBF	Dual Low Side Driver, Inverting Input in a 8-lead SOIC package
IR4426STRPBF	Dual Low Side Driver, Inverting Input in a 8-lead SOIC package
IR4427SPBF	Dual Low Side Driver in a 8-lead SOIC package
IR4427STRPBF	Dual Low Side Driver in a 8-lead SOIC package
IRS2011SPBF	High and Low Side Driver in a 8-Lead SOIC package
IRS2011STRPBF	High and Low Side Driver in a 8-Lead SOIC package
IRS2109SPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 540ns Deadtime in a 8-lead SOIC package
IRS2109STRPBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 540ns Deadtime in a 8-lead SOIC package
IRS21531DSPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a 8-pin SOIC package
IRS21531DSTRPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a 8-pin SOIC package
IRS2153DSPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a SO-8 package
IRS2153DSTRPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a SO-8 package
IRS21851SPBF	600V Single High Side Driver IC with propagation delay matched output channels in a 8-Lead SOIC package

IRS21851STRPBF	600V Single High Side Driver IC with propagation delay matched output channels in a 8-Lead SOIC package
IRS21867SPBF	High current (Iout = 4A) robust HS/LS gate driver
IRS21867STRPBF	High current (Iout = 4A) robust HS/LS gate driver
IRS2186SPBF	Derived from the IRS2181PBF this High and Low Side Driver in a 8-Lead SOIC package has output source/sink current capability of 4A and 4A
IRS2186STRPBF	Derived from the IRS2181PBF this High and Low Side Driver in a 8-Lead SOIC package has output source/sink current capability of 4A and 4A
IRS2500SPBF	PFC controller IC
IRS2500STRPBF	PFC controller IC
IRS2526DSPBF	Fluorescent PFC + Ballast Combo IC
IRS2530DSPBF	Ballast Control IC, 600V .500A SOIC
IRS2530DSTRPBF	Ballast Control IC, 600V .500A SOIC
IRS2538DSPBF	
IRS2538DSTRPBF	
IRS25401SPBF	Hysteretic Buck LED Driver (Improved version of the IRS2540, IRS2541)
IRS25401STRPBF	Hysteretic Buck LED Driver (Improved version of the IRS2540, IRS2541)
IRS2540SPBF	200V Half Bridge Driver LED Buck Regulator in a 8-Pin SOIC Package
IRS2540STRPBF	200V Half Bridge Driver LED Buck Regulator in a 8-Pin SOIC Package
IRS25411SPBF	Hysteretic Buck LED Driver (Improved version of the IRS2540, IRS2541)
IRS25411STRPBF	Hysteretic Buck LED Driver (Improved version of the IRS2540, IRS2541)
IRS2541SPBF	600V Half Bridge Driver LED Buck Regulator in a 8-Pin SOIC Package
IRS25803DSTRPBF	
IRS2580DSPBF	Fluorescent PFC + Ballast Combo IC
IRS2580DSTRPBF	Fluorescent PFC + Ballast Combo IC
IRS27951SPBF	Resonant 1/2 Bridge Control IC
IRS27951STRPBF	Resonant 1/2 Bridge Control IC
IRS27952SPBF	Resonant 1/2 Bridge Control IC
IRS27952STRPBF	Resonant 1/2 Bridge Control IC
IRS2983SPBF	
IRS2983STRPBF	

Qualification:

Parts passed MSL reliability testing requirements and the preliminary qualification report is available upon request. Qualification standards can be found on International Rectifier's web site at www.irf.com/product-info/reliability.

Supporting Data Availability:

Contact IR for supporting data on this change.

Contact Information:

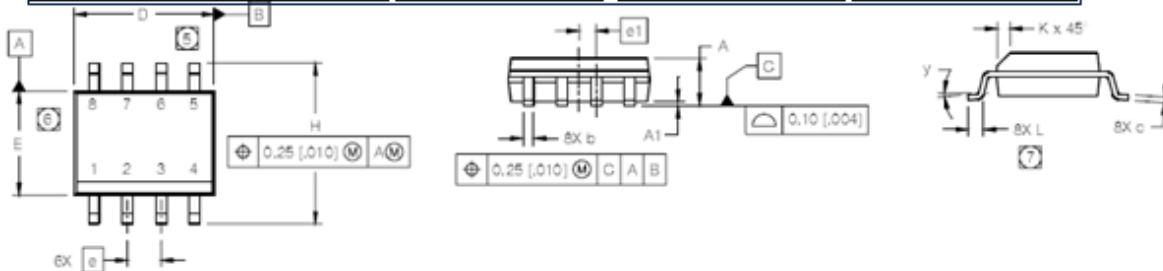| CONTACT TYPE	NAME	PHONE	EMAIL
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IR International Rectifier

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Date: April 13, 2015
PCN Reference: PCN Attachment1
PCR Reference: PCR# 532
Product Reference: SOIC8L-HVIC Products

NOTE: BOM and Process Flow are unchanged with the exception of Leadframe

■ POD Comparison

SOIC 8L PACKAGE OUTLINE COMPARISON

SYMBOL	SYMBOL DESCRIPTION	IR POD Spec (mm)		Proposed - Actual Data (DCI 95x140 Etched LF, 442931) (mm)		Current - Actual Data (Possehl 95x140 Stamped LF, 437392) (mm)	
		MIN	MAX	MIN	MAX	MIN	MAX
A	Total Package height	1.35	1.75	1.65	1.69	1.60	1.66
A1	Btm of pkg to btm of leads	0.10	0.25	0.16	0.20	0.17	0.19
A2	Package thickness			1.42	1.48	1.43	1.47
b	Lead width (with plating)	0.33	0.51	0.37	0.39	0.37	0.39
c	Lead thickness (with plating)	0.19	0.25	0.21	0.23	0.21	0.22
D	Package length	4.80	5.00	4.82	4.96	4.83	4.94
H	Lead tip to lead tip width	5.80	6.20	5.97	6.06	5.99	6.03
E	Package width	3.80	4.00	3.83	3.96	3.85	3.96
e	Lead pitch	1.27 BSC		1.26	1.28	1.27	1.28
L	Lead length (solderable)	0.40	1.27	0.69	0.75	0.70	0.77
y	Foot Angle	0	8	0	2	0	3

REMARKS: All dimensions are within IR POD specification
Dimensions of Etched LF are comparable with those of Stamped LF

9