

IOR International Rectifier

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Process Change Notification

Date: Monday, July 20, 2015

PCR Reference: 635

PCN Reference: 635-PCN90-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:

PDIP Gen5 HVIC Products

Description of Change:

PDIP Gen5 HVIC Products- Alternate site for the assembly and test PDIP Gen5 HVIC products
Products listed in the next page will be assembled Hana Thailand with BOM below

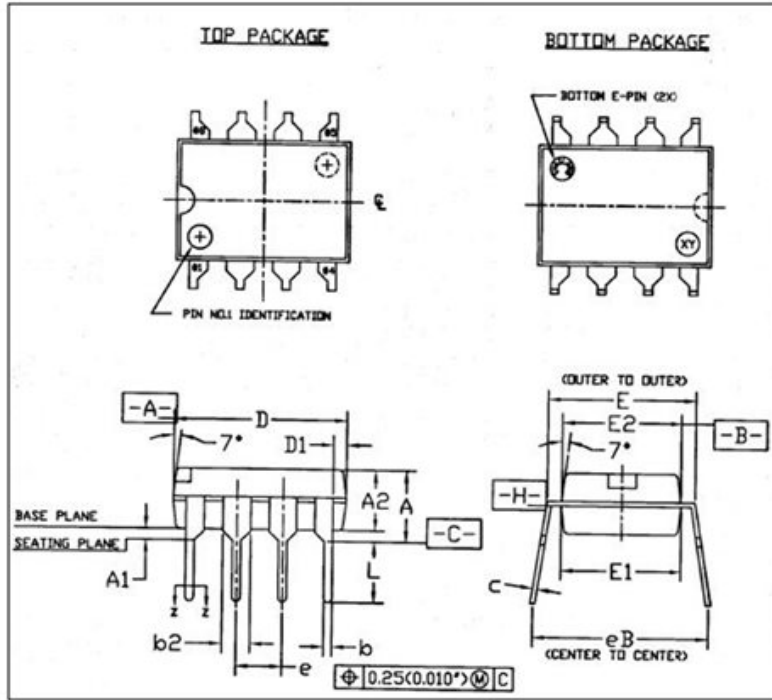
Material	Carsem Malaysia (Current site)	Hana Thailand (Proposed site)	Impact on Form, Fit or Function
Epoxy	84-1LMISR4	84-1LMISR4	None
Wire	Cu	Cu	None
Mold compound	CEL8240	CEL8240	None
Terminal Finish	Matte Tin	Matte Tin	None

Package Outline Comparison – PDIP8L

SYMBOL	DESCRIPTION	IR POD		HANA		REMARKS
		mm		mm		
		MIN	MAX	MIN	MAX	
A	Top of pkg to lead stand off	-	5.33	3.68	3.92	Within IR
A1	Btm of pkg to lead stand off	0.39	-	0.38	-	Within IR
A2	Package thickness			3.25	3.35	
b	Lead width (with plating)	0.36	0.56	0.36	0.56	same
b2	Lead stand off width	1.15	1.77	1.524 BSC		Within IR
c	Lead thickness (with plating)	0.20	0.38	0.20	0.36	Within IR

S	Lead structure (with plating)	V.0V	V.00	V.0V	V.00	REMARKS
D	Package length	8.84	10.92	9.45	9.55	Within IR
E	Lead to lead shoulder	7.62 REF		7.71	8.13	Within IR
E1	Package width	6.10	7.11	6.57	6.67	Within IR
e	Lead pitch	2.54 BSC		2.54 BSC		same
eB				7.87	9.65	
L	Lead length	2.93	4.06	3.05	3.55	Within IR

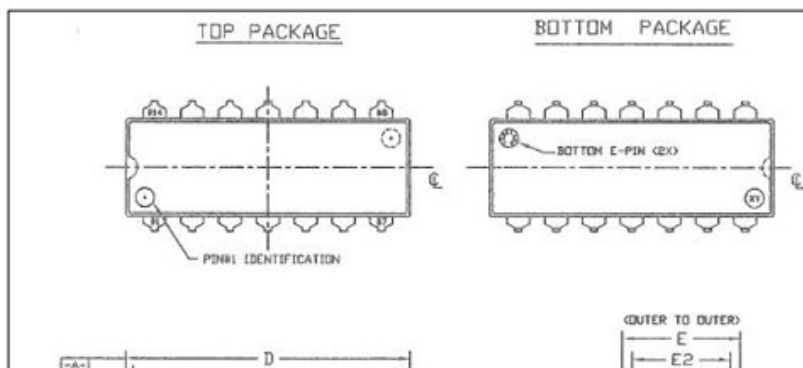
Legend: No dim in POD

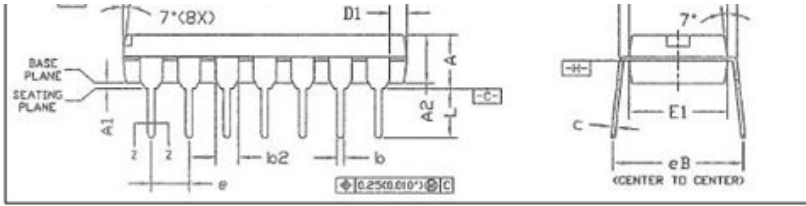


Package Outline Comparison – PDIP14L

SYMBOL	DESCRIPTION	IR POD		HANA		REMARKS
		mm		mm		
		MIN	MAX	MIN	MAX	
A	Top of pkg to lead stand off	-	5.33	3.55	4.04	Within IR
A1	Btm of pkg to lead stand off	0.39	-	0.38	-	Within IR
A2	Package thickness			3.20	3.40	
b	Lead width (with plating)	0.36	0.56	0.36	0.56	same
b2	Lead stand off width	1.15	1.77	1.524 BSC		Within IR
c	Lead thickness (with plating)	0.20	0.38	0.20	0.28	Within IR
D	Package length	18.42	20.19	18.90	19.25	Within IR
E	Lead to lead shoulder	7.62 REF				Within IR
E1	Package width	6.10	7.11	6.50	6.70	Within IR
e	Lead pitch	2.54 BSC		2.54 BSC		same
eB				7.87	9.65	
L	Lead length	2.93	4.06	3.05	3.55	Within IR

Legend: No dim in POD

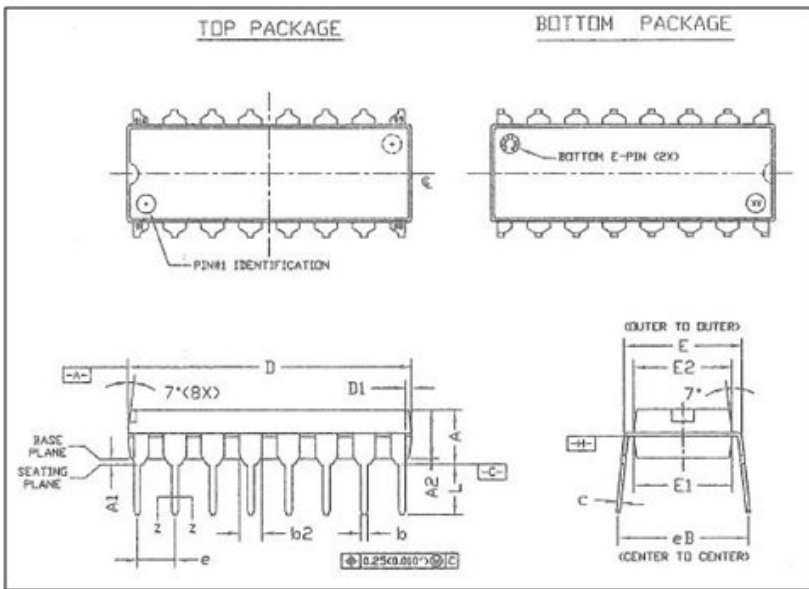




Package Outline Comparison – PDIP16L

SYMBOL	DESCRIPTION	IR POD		HANA		REMARKS
		MIN	MAX	MIN	MAX	
A	Top of pkg to lead stand off	-	5.33	3.55	4.05	Within IR
A1	Btm of pkg to lead stand off	0.39	-	0.38	-	Within IR
A2	Package thickness			3.20	3.40	
b	Lead width (with plating)	0.36	0.56	0.36	0.56	same
b2	Lead stand off width	1.15	1.77	1.524 BSC		Within IR
c	Lead thickness (with plating)	0.20	0.38	0.20	0.36	Within IR
D	Package length	18.93	21.33	18.90	19.25	Within IR
E	Lead to lead shoulder	7.62 REF				
E1	Package width	6.10	7.11	6.50	6.70	Within IR
e	Lead pitch	2.54 BSC		2.54 BSC		same
eB				7.87	9.65	
L	Lead length	2.93	4.06	3.05	3.55	Within IR

Legend: No dim in POD



Reason for the Change:

Additional assembly and test capacity and BOM standardization

Effect Date:

Sunday, October 18, 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:

No impact is expected. The new Bill of Materials and Assembly site will meet the same parametric, MSL and Qualification level as the existing products. Product Datasheets will remain unchanged.

Method of Identifying Changed Product:

The part marking will be updated to include an “underscore” after the last digit of the Lot Code to identify the part as a Copper wire based device.

Products Affected:

IR Part	Description
IRS2001PBF	High and Low Side Driver in a 8-Lead PDIP package
IRS2003PBF	Half Bridge Driver, high speed power MOSFET and IGBT drivers with dependent high and low side referenced output channels
IRS2004PBF	Half Bridge Driver, high speed power MOSFET and IGBT drivers with dependent high and low side referenced output channels
IRS2011PBF	High and Low Side Driver in a 8-Lead PDIP package
IRS2092PBF	200V Digital Audio Driver in a 16-lead P-DIP Package
IRS2101PBF	High and Low Side Driver in a 8-pin DIP package
IRS2103PBF	Half Bridge Driver, Separate High and Low Side Inputs, Inverting Low Side Input, Fixed 520ns Deadtime in a 8-pin DIP package
IRS2104PBF	Half Bridge Driver, Single Input Plus Inverting Shutdown Pin, Fixed 520ns Deadtime in a 8-pin DIP package
IRS21064PBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, All High Voltage Pins on One Side, Separate Logic and Power Ground in a 14-pin DIP package
IRS2106PBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, All High Voltage Pins on One Side, Separate Logic and Power Ground in a 8-pin DIP package
IRS21084PBF	Half Bridge Driver, Soft Turn-On, All High Voltage Pins on One Side, Separate High and Low Side Inputs, Programmable 540-5000ns Deadtime in a 14-pin DIP package
IRS2108PBF	Half Bridge Driver, Soft Turn-On, Separate High and Low Side Inputs, Fixed 540ns Deadtime in a 8-pin DIP package
IRS21091PBF	Half Bridge Driver in a 8-pin DIP package
IRS21094PBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, All high Voltage Pins on One Side, Programmable 540-5000ns Deadtime in a 14-pin DIP package
IRS2109PBF	Half Bridge Driver, Soft Turn-On, Single Input Plus Shut-Down, Fixed 540ns Deadtime in a 8-pin DIP package
IRS2110PBF	High and Low Side Driver, All High Voltage Pins On One Side, Separate Logic and Power Ground, Shut-Down, High Creepage Package in a 14-pin DIP Lead Free package
IRS2111PBF	Half Bridge Driver, Fixed 650ns Deadtime in a 8-Lead PDIP package
IRS2112PBF	High and Low Side Driver, Shutdown Input in a 14-pin DIP package
IRS2113PBF	High and Low Side Driver, All High Voltage Pins On One Side, Separate Logic and Power Ground, Shut-Down, High Creepage Package in a 14-pin DIP Lead Free package
IRS2117PBF	Single High Side Driver, Noninverting Input in a 8-pin DIP package
IRS2118PBF	Single High Side Driver, Inverting Input in a 8-pin DIP package

IRS21271PBF	600V Current Sensing Single Channel Driver with Gate Drive Range of 12V - 20V and Output in Phase with Input in a 8-Lead PDIP Package.
IRS2127PBF	600V Current Sensing Single Channel Driver with Gate Drive Range of 12V - 20V and Output in Phase with Input in a 8-Lead PDIP Package.
IRS21281PBF	600V Current Sensing Single Channel Driver with Gate Drive Range of 12V - 20V and Output out of Phase with Input in a 8-Lead PDIP Package.
IRS2128PBF	600V Current Sensing Single Channel Driver with Gate Drive Range of 12V - 20V and Output out of Phase with Input in a 8-Lead PDIP Package.
IRS21531DPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a 8-pin DIP package
IRS2153DPBF	Self-Oscillating Half Bridge Driver, 1.1us Deadtime in a 8-pin DIP package.
IRS2158DPBF	Fully integrated, fully protected 600V ballast control IC designed to drive all types of fluorescent lamps.
IRS2166DPBF	PFC and Ballast Control IC in a 16-Lead PDIP Package
IRS2168DPBF	Advanced PFC and Ballast Control IC in a 16-Lead PDIP Package
IRS21814PBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, Separate High and Low Side Inputs, All High Voltage Pins On One Side, Separate Logic and Power Ground in a 14-pin DIP package
IRS2181PBF	High and Low Side Driver, SoftTurn-On, Noninverting Inputs, Separate High and Low Side Inputs in a 8-pin DIP package
IRS21834PBF	Half Bridge Driver, SoftTurn-On, Low Side Inverting Inputs, Separate High and Low Side Inputs, All High Voltage Pins On One Side, Separate Logic and Power Ground, Programmable 400-5000ns Deadtime in a 14-pin DIP package
IRS2183PBF	Half Bridge Driver, SoftTurn-On, Low Side Inverting Input, Separate High and Low Side Input, 400ns Deadtime in a 8-pin DIP package
IRS21844PBF	Half Bridge Driver, SoftTurn-On, Single Input Plus Inverting Shut-Down, All High Voltage Pins on One Side, Separate Logic and Power Ground, Programmable 400-5000ns Deadtime in a 14-pin DIP package
IRS2184PBF	Half Bridge Driver, SoftTurn-On, Single Input Plus Inverting Shut-Down, 400ns Deadtime in a 8-pin DIP package
IRS21864PBF	Derived from the IRS2181PBF this High and Low Side Driver in a 14-Lead PDIP package has output source/sink current capability of 4A and 4A
IRS2304PBF	Half Bridge Driver, high voltage, high speed power MOSFET and IGBT driver with independent high and low side referenced output channels.
IRS2308PBF	High Voltage and High Speed power MOSFET and IGBT Half Bridge Driver in a 8-pin DIP package
IRS2453DPBF	Self-Oscillating Full-Bridge 600V Driver in a 14-Lead PDIP package
IRS2552DPBF	CCFL / EEFL Ballast Controller IC

Qualification:

Parts passed all the reliability testing requirements. Reliability 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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