



101 North Sepulveda Boulevard, El Segundo, California, 90245, USA Telephone: +1 310 726 8000 www.irf.com

Process Change Notification

Date: Friday, July 10, 2015
PCR Reference: 220
PCN Reference: 220-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:

Additional assembly site

Description of Change:

Additional assembly site for TO-220 and D2Pak IGBT products Super Power Semiconductors (Korea) will be the alternate assembly site for the part numbers identified in the following page. As a result of this change, the package will change as follows

Bill of Materials

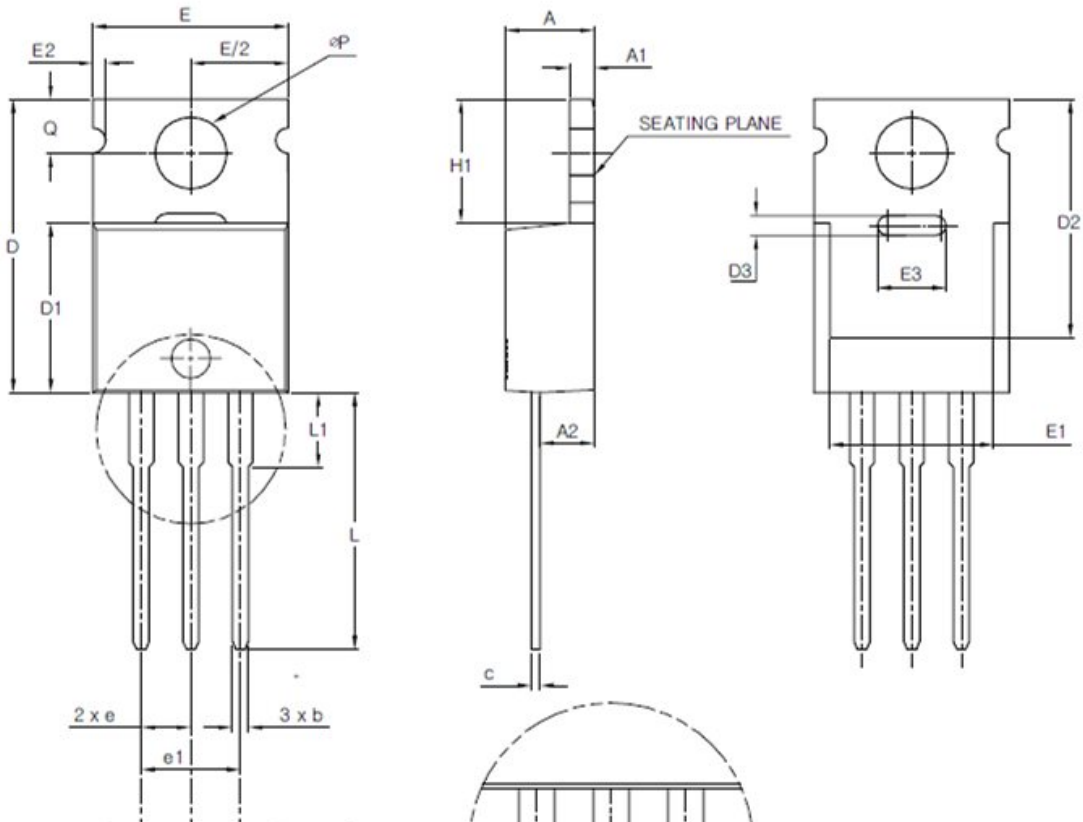
PACKAGE	ITEM	EXISTING	TARGET
TO-220	Assembly site	International Rectifier Mexico	Super Power Semiconductors (SP Korea)
	Mold compound	43-9807	44-1197
	Wire	Ni-doped Aluminum	Aluminum
	Die attach solder	<u>Sn/Ag/Sb</u>	<u>Pb/Sn/Ag</u>
	<u>Leadframe</u>	Selective Ni	Bare Copper
	<u>Lead plating</u>	<u>Sn/0.7Cu Solder Dip</u>	100 Matte <u>Sn</u>
D2Pak	Assembly site	International Rectifier Mexico	Super Power Semiconductors (SP Korea)
	Mold compound	44-0151	44-1313
	Wire	Ni-doped Aluminum	Aluminum
	Die attach solder	<u>Pb/In/Ag</u>	<u>Pb/Sn/Ag</u>
	<u>Leadframe</u>	Selective Ni	Selective Ni
	<u>Lead plating</u>	100 Matte <u>Sn</u>	100 Matte <u>Sn</u>

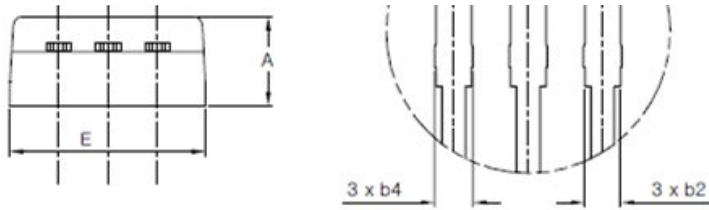
Package Outline Comparison TO-220

TO220-AB POD COMPARISON

Unit of measurement: mm

Reference	IR POD		SP POD		JEDEC POD	
	Min	Max	Min	Max	Min	Max
A	3.56	4.83	3.56	4.83	3.56	4.83
A1	0.51	1.40	0.51	1.40	0.51	1.40
A2	2.03	2.92	2.03	2.92	2.03	2.92
b	0.38	1.01	0.38	1.01	0.38	1.01
b2	1.14	1.78	1.14	1.78	1.14	1.78
c	0.36	0.61	0.36	0.61	0.36	0.61
D	14.22	16.51	14.22	16.51	14.22	16.51
D1	8.38	9.02	8.38	9.02	8.38	9.02
D2	11.68	12.88	11.68	12.88	12.19	12.88
E	9.65	10.67	9.65	10.67	9.65	10.67
E1	6.86	8.89	6.86	8.89	6.86	8.89
e	100 BSC		100 BSC		100 BSC	
H1	5.84	6.86	5.84	6.86	5.84	6.86
L	12.70	14.73	12.70	14.73	12.70	14.73
L1	3.56	4.06	3.56	4.06	3.56	4.06
ØP	3.54	4.08	3.54	4.08	3.54	4.08
Q	2.54	3.42	2.54	3.42	2.54 </td <td>3.42</td>	3.42



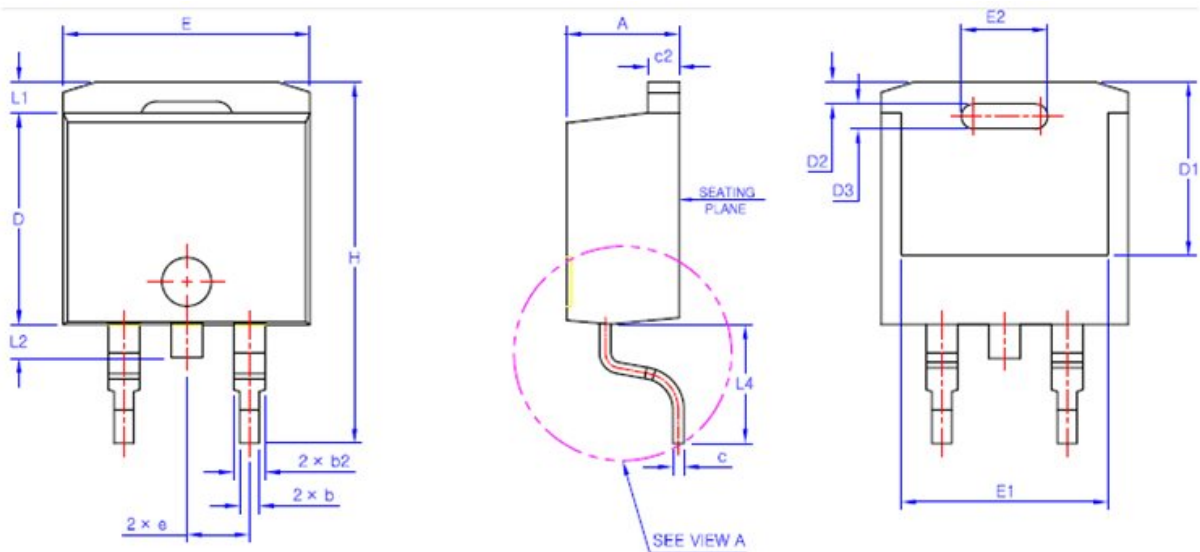


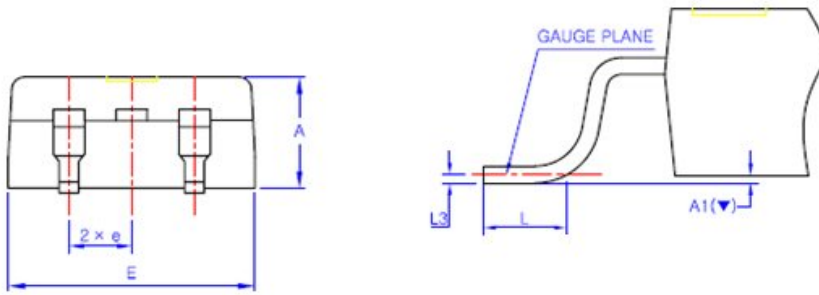
Package Outline Comparison D2Pak

D2pak POD Comparison

Unit of measurement: mil

Reference	IR POD		SP POD		JEDEC POD	
	Min	Max	Min	Max	Min	Max
A	160	190	160	190	160	190
A1	-	10	-	10	-	10
b	10	39	10	39	20	39
c	20	29	20	29	15	29
c2	45	65	45	65	15	65
D	330	380	330	380	330	380
D1	270	-	270	-	270	-
E	380	420	380	420	380	420
E1	245	-	245	-	245	-
e	100 BSC		100 BSC		100 BSC	
H	575	625	575	625	575	625
L	70	110	70	110	70	110
L1	-	66	-	66	-	66
L2	-	70	-	70	-	70





Reason for the Change:

Additional assembly capacity and Bill of Materials consolidation.

Effect Date:

Thursday, October 08, 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 for typical applications. The new assembly site will meet the same qualification level as the existing products. Datasheet will not be modified as the result of this change in assembly site and bill of materials.

Method of Identifying Changed Product:

Datecode and Lotcode information

Products Affected:

IR Part	Description
63-2003PBF	
63-2004PBF	
IRG4BC10KDPBF	600V UltraFast 8-25 kHz Copack IGBT in a TO-220AB package
IRG4BC10SD-SPBF	600V DC-1 kHz (Standard) Copack IGBT in a D2-Pak package
IRG4BC20FDPBF	600V Fast 1-8 kHz Copack IGBT in a TO-220AB package
IRG4BC20KD-SPBF	600V UltraFast 8-25 kHz Copack IGBT in a D2-Pak package
IRG4BC20KDPBF	600V UltraFast 8-25 kHz Copack IGBT in a TO-220AB package
IRG4BC20KDSTRLP	600V10.000ACOPAKD2PAK
IRG4BC20SPBF	600V DC-1 kHz (Standard) Discrete IGBT in a TO-220AB package
IRG4BC20UDPBF	600V UltraFast 8-60 kHz Copack IGBT in a TO-220AB package
IRG4BC30FD-SPBF	600V HyperFast 1-8 kHz Co-Pack IGBT in a D2-Pak package
IRG4BC30FDPBF	600V Fast 1-8 kHz Copack IGBT in a TO-220AB package

IRG4BC30FDSTRRP	600V31.000ACOPAKD2PAK
IRG4BC30FPBF	600V Fast 1-8 kHz Discrete IGBT in a TO-220AB package
IRG4BC30KDPBF	600V UltraFast 8-25 kHz Copack IGBT in a TO-220AB package
IRG4BC30KDSTRLP	600V23.000ACOPAKD2PAK
IRG4BC30KPBF	600V UltraFast 8-25 kHz Discrete IGBT in a TO-220AB package
IRG4BC30UDPBF	600V UltraFast 8-60 kHz Copack IGBT in a TO-220AB package
IRG4BC30UPBF	600V UltraFast 8-60 kHz Discrete IGBT in a TO-220AB package
IRG4BC30W-SPBF	600V Warp 60-150 kHz Discrete IGBT in a D2-Pak package
IRG4BC40FPBF	600V Fast 1-8 kHz Discrete IGBT in a TO-220AB package
IRG4BC40SPBF	600V DC-1 kHz (Standard) Discrete IGBT in a TO-220AB package
IRG4BC40UPBF	600V UltraFast 8-60 kHz Discrete IGBT in a TO-220AB package
IRG4BC40W-STRRP	600V40.000AD2PAK
IRG4BC40WPBF	600V Warp 60-150 kHz Discrete IGBT in a TO-220AB package
IRG4BH20K-SPBF	1200V UltraFast 4-20 kHz Discrete IGBT in a D2-Pak package
IRG4BH20K-STRLP	1200V11.000AD2PAK
IRGB10B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a TO-220AB package
IRGB14C40LPBF	430V Low-Vceon Discrete IGBT in a TO-220AB package
IRGB15B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a TO-220AB package
IRGB20B60PD1PBF	600V Warp2 150kHz Copack IGBT in a TO-247AC package
IRGB30B60KPBF	600V UltraFast 10-30 kHz IGBT in a TO-220AB package
IRGB4B60KD1PBF	600V Low-Vceon Non Punch Through Copack IGBT in a TO-220 FullPak package
IRGB5B120KDPBF	1200V UltraFast 10-30 kHz Copack IGBT in a TO-220AB package
IRGB6B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a TO-220AB package
IRGS10B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a D2-Pak package
IRGS10B60KDTRRP	600V10.000ACOPAKD2PAK
IRGS14C40LPBF	430V Low-Vceon Discrete IGBT in a D2-Pak package
IRGS14C40LTRLP	400V14.000AD2PAK
IRGS15B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a D2-Pak package
IRGS15B60KDTRRP	600V15.000ACOPAKD2PAK
IRGS30B60KPBF	600V UltraFast 10-30 kHz IGBT in a D2-Pak package
IRGS30B60KTRRP	600V30.000AD2PAK
IRGS4B60KD1TRRP	600V10.000ACOPAKD2PAK
IRGS6B60KDPBF	600V UltraFast 10-30 kHz Copack IGBT in a D2-Pak package
IRGS6B60KDTRRP	600V5.000ACOPAKD2PAK
IRGS6B60KTRLPBF	600V7.000AD2PAK
IRGS8B60KPBF	600V UltraFast 10-30 kHz Copack IGBT in a D2-Pak package
63-2010PBF	
63-0002PBF	
63-2012PBF	
63-4002PBF	

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
PCN Coordinator	Mark Ogden	+001-951-375-2334	mogden1@irf.com
Technical	Cesar Gonzales		cgonzal1@irf.com