



PRODUCT CHANGE NOTICE

**PCN-2462 REV 3 –
FINAL UPDATE**

Notification Date:	Implementation Date:	Product Family:	Change Type:	PCN #:
May 8, 2020	April 11, 2021	Discrete - Automotive	Wafer Site Transfer, Additional Wafer Source, Additional AT Site	2462
TITLE				
Phenitec Wafer Manufacturing Site Change, Additional Wafer Sources, Wafer Diameter Change, Additional Assembly and Test Site (Automotive)				
DESCRIPTION OF CHANGE				
<p>REV 3: This update provides a final listing of affected part numbers for which qualification is complete for the changes listed in the title of the tables below. All applicable qualification reports are attached (embedded in this file).</p> <p>For select part numbers, some planned changes previously announced in Rev 1 (Advance Notice) of this PCN will not be implemented under this PCN. Therefore, some part numbers were either completely removed from this PCN (Table 0), or are now listed in different tables compared to the initial Rev 1 of this PCN.</p> <p>This PCN is being issued to notify customers that Diodes' foundry Phenitec Semiconductor Corporation will transfer wafer manufacturing from Headquarter 'HQ Fab' to '1st Fab' and convert manufacturing for select wafer types currently already set up at '1st Fab' from 5" to 6" wafer diameter. Both factories are located in Okayama, Japan. Phenitec's '1st Fab' has already been a qualified wafer supplier of Diodes for a number of years.</p> <p>In conjunction with the Phenitec fab site transfer and change in wafer diameter several additional changes will be implemented on select part numbers to ensure continuity of supply, standardize manufacturing processes, and enhance manufacturability. This includes the addition of wafer sources and an assembly & test site, and alignment of wafer fab and assembly bill of material (BOM), i.e. wafer process metal system, mold compound, bond wire material. Details are outlined below.</p> <p>Full electrical characterization and high reliability testing has been completed on representative part numbers to ensure no change to device functionality or electrical specifications in the datasheet. Refer to the attached qualification report embedded in this file (to view, download this PCN file then open it with a PDF viewer to see the attached qual report).</p> <p>Please contact your local Diodes Sales representative for samples availability.</p> <p>List of changes:</p> <ol style="list-style-type: none">1) Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab'2) Change from 5" to 6" wafer diameter at Phenitec '1st Fab'3) Add Diodes internal OFAB (Diodes Zetex Semiconductors Limited) in Oldham, UK as additional wafer source4) Add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan)5) Change in die size*6) Add Diodes internal CAT (Chengdu Assembly & Test) as additional A/T site using PdCu or bare Cu bond wire				



Affected parts lists and corresponding changes are shown in the tables below.

IMPACT

Continuity of Supply. There will be no change to the Form, Fit or Function of products affected, unless specifically indicated.

No change in datasheet parameters and product performance.

PRODUCTS AFFECTED

- **Table 0: Parts removed from PCN-2462**
- Table 1: Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab'
- Table 2: Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab' and add Diodes internal CAT as additional A/T site
- Table 3: Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab' and add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan) as additional wafer source
- Table 4: Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab', add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan) as additional wafer source, and Add Diodes internal CAT as additional A/T site
- Table 5: Change from 5" to 6" wafer diameter at Phenitec '1st Fab'
- Table 6: (Removed)
- Table 7: Add Diodes internal OFAB as additional wafer source
- Table 8: Add Diodes internal OFAB as additional wafer source and add Diodes internal CAT as additional A/T site

WEB LINKS

Manufacturer's Notice:	https://www.diodes.com/quality/product-change-notices/diodes-product-change-notices/
For More Information Contact:	http://www.diodes.com/contacts.html
Data Sheet:	http://www.diodes.com/catalog

DISCLAIMER

Unless a Diodes Incorporated Sales representative is contacted in writing within 30 days of the posting of this notice, all changes described in this announcement are considered approved.

Table 0 - Parts removed from PCN-2462

MMBZ20VALQ-7-F	ADTA113ZUAQ-7	ADTB123YCQ-7	BAS21Q-13-F	BAV21WSQ-7-F	BAW101Q-7
ACX115EUQ-13R	ADTA123JCAQ-13	ADTC113TCAQ-13	BAS21Q-7-F	BAV23AQ-13-F	MMBD2004SQ-7-F
ACX115EUQ-7R	ADTA123JCAQ-7	ADTC113TCAQ-7	BAS21TMQ-13	BAV23AQ-7-F	MMBD2004SWQ-7-F
ADA123JUQ-13	ADTA123JUAQ-13	AL5801W6Q-7	BAS21TWQ-7	BAV23CQ-13-F	MMBD3004CQ-7-F
ADA123JUQ-7	ADTA123JUAQ-7	ASMCC0155Q-7	BAS21WQ-7-F	BAV23CQ-7-F	MMBD3004SQ-13-F
ADC113TUQ-13	ADTB113ZCQ-13	BAS20DWQ-13	BAS521LPQ-7B	BAV23SQ-13-F	MMBD3004SQ-7-F
ADC113TUQ-7	ADTB113ZCQ-7	BAS20DWQ-7	BAV20WQ-7-F	BAV23SQ-7-F	MMBZ15VALQ-7-F
ADTA113ZCAQ-13	ADTB122LCQ-13	BAS20Q-13-F	BAV21HWFQ-7	BAV3004WQ-7-F	MMBZ18VALQ-7-F
ADTA113ZCAQ-7	ADTB122LCQ-7	BAS20Q-7-F	BAV21WQ-7-F	BAV5004WSQ-7	MMBZ33VALQ-7-F
ADTA113ZUAQ-13	ADTB123YCQ-13	BAS21DWAQ-7			

Table 1 - Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab'

1N4448WSFQ-7	BAV170Q-13-F	BZX84B12Q-7-F	BZX84C30Q-7-F	DFLZ18Q-7	MMBZ27VCLQ-7-F
ASMCC0217Q-7	BAV170Q-7-F	BZX84B13Q-7-F	BZX84C33Q-13-F	DFLZ20Q-7	MMBZ5255BQ-7-F
B0520LWQ-7-F	BAV199DWQ-7-F	BZX84B15Q-7-F	BZX84C33Q-7-F	DFLZ22Q-7	MMBZ5257BQ-7-F
BAS116Q-13-F	BAV199Q-13-F	BZX84B16Q-7-F	BZX84C36Q-13-F	DFLZ24Q-7*	MMSZ5232BQ-13-F
BAS116Q-7-F	BAV199Q-7-F	BZX84B18Q-7-F	BZX84C36Q-7-F	DFLZ27Q-7	MMSZ5232BQ-7-F
BAS40-06Q-13-F	BAV199WQ-7	BZX84B20Q-7-F	BZX84C43Q-7-F	DFLZ30Q-7	MMSZ5233BQ-7-F
BAS40Q-7-F	BAW156Q-13-F	BZX84B24Q-7-F	BZX84C47Q-7-F	DFLZ33Q-7	MMSZ5234BQ-7-F
BAS70DW-05Q-7-F	BAW156Q-7-F	BZX84B27Q-7-F	DESDA5V3LQ-7	DFLZ36Q-7	MMSZ5246BQ-13-F
BAT54AQ-13	BAW156TQ-7-F	BZX84B2V7Q-7-F	DFLT16AQ-7	DFLZ39Q-7	MMSZ5246BQ-7-F
BAT54AQ-7-F	BZT52C13LPQ-7	BZX84B30Q-7-F	DFLT18AQ-7	DFLZ5V1Q-7	MMSZ5248BQ-13-F
BAT54AWQ-7-F	BZT52C15LPQ-7	BZX84B33Q-7-F	DFLT20AQ-7	DFLZ5V6Q-7	MMSZ5248BQ-7-F
BAT54CQ-13	BZT52C16LPQ-7	BZX84B39Q-7-F	DFLT22AQ-7	DFLZ6V2Q-7	MMSZ5250BQ-7-F
BAT54CQ-7-F	BZT52C30Q-7-F	BZX84B3V0Q-7-F	DFLT26AQ-7	DFLZ6V8Q-7	MMSZ5252BQ-7-F
BAT54CWQ-7-F	BZT52C30SQ-7-F	BZX84B3V3Q-7-F	DFLT28AQ-7	DFLZ8V2Q-7	MMSZ5254BQ-13-F
BAT54Q-7-F	BZT52C33Q-7-F	BZX84B3V9Q-7-F	DFLT33AQ-7	MMBT2222AQ-7-F	MMSZ5254BQ-7-F
BAT54SDWQ-7-F	BZT52C33SQ-7-F	BZX84B4V3Q-7-F	DFLT36AQ-7	MMBT2907AQ-7-F	MMSZ5255BQ-7-F
BAT54SQ-13	BZT52C36Q-7-F	BZX84B5V1Q-7-F	DFLT40AQ-7	MMBT3904Q-7-F	MMSZ5256BQ-7-F
BAT54SQ-7-F	BZT52C36SQ-7-F	BZX84B5V6Q-13-F	DFLT5V0AQ-7	MMBT4401Q-13-F	MMSZ5257BQ-7-F
BAT54SWQ-7-F	BZT52C39Q-7-F	BZX84B5V6Q-7-F	DFLZ10Q-7	MMBTA05Q-13-F	MMSZ5258BQ-13-F
BAT54WQ-13-F	BZT52C43Q-7-F	BZX84B6V2Q-7-F	DFLZ11Q-7	MMBTA06Q-7-F	MMSZ5258BQ-7-F
BAT54WQ-7-F	BZT52C47Q-7-F	BZX84B6V8Q-7-F	DFLZ12Q-7	MMBTA92Q-7-F	MMSZ5259BQ-7-F
BAT54WSQ-7-F	BZT52C51Q-7-F	BZX84B7V5Q-7-F	DFLZ13Q-7	MMBT3906Q-7-F	SDM20U30LPQ-7
BAV116HWFQ-7	BZT52C9V1LPQ-7	BZX84B8V2Q-7-F	DFLZ15Q-7*	MMBZ27VALQ-13-F	SDM20U40Q-13
BAV116WSQ-7	BZX84B11Q-7-F	BZX84B9V1Q-7-F	DFLZ16Q-7	MMBZ27VALQ-7-F	SDM20U40Q-7

Note: "*" change in die size



Table 2 – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1 st Fab’ and add Diodes internal CAT as additional A/T site					
1N4148WQ-13-F	BAV99DWQ-7-F	BZT52C2V0SQ-7-F	BZT585B2V4TQ-7	DDZ17Q-7	DDZ9692TQ-7
1N4148WQ-7-F	BAV99HDWQ-13	BZT52C2V0TQ-7-F	BZT585B30TQ-7	DDZ18CQ-7	DDZ9693Q-7
1N4148WSQ-13-F	BAV99Q-13-F	BZT52C2V4TQ-7-F	BZT585B36TQ-7	DDZ20CQ-7	DDZ9696Q-7
1N4148WSQ-7-F	BAV99Q-7-F	BZT52C36TQ-7-F	BZT585B39TQ-7	DDZ31Q-7	DDZ9699Q-7
1N4148WTQ-7	BAV99TQ-13-F	BZT52C3V0Q-7-F	BZT585B3V6TQ-7	DDZ33Q-7	DDZ9700Q-7
1N4448HWSQ-7-F	BAV99WQ-7-F	BZT52C3V0TQ-7-F	BZT585B3V9TQ-7	DDZ36Q-7	DDZ9702Q-7
1N4448WQ-7-F	BAW56DWQ-7-F	BZT52C3V3TQ-7-F	BZT585B5V1TQ-7	DDZ5V1BQ-7	DDZ9705Q-7
1N4448WSQ-7-F	BAW56HDWQ-13	BZT52C4V7TQ-7-F	BZT585B5V6TQ-7	DDZ5V6BQ-7	DDZ9708Q-7
AZ23C5V1Q-7-F	BAW56Q-13-F	BZT52C5V6TQ-7-F	BZT585B6V2TQ-7	DDZ6V2BQ-13	DDZ9709Q-7
BAS16HLPQ-7B	BAW56Q-7-F	BZT52C6V8TQ-7-F	BZT585B6V8TQ-7	DDZ6V2BQ-7	DDZ9712Q-7
BAS16HTWQ-13	BAW56WQ-7-F	BZT52C7V5TQ-7-F	BZT585B7V5TQ-7	DDZ6V8BQ-7	DDZ9714Q-7
BAS16HTWQ-13R	BZT52C10TQ-7-F	BZT52C8V2TQ-7-F	BZT585B8V2TQ-7	DDZ8V2CQ-7	DDZ9V1BQ-7
BAS16Q-13-F	BZT52C11TQ-7-F	BZT52C9V1SQ-7-F	BZT585B9V1TQ-7	DDZ9678Q-7	DDZX12CQ-7
BAS16Q-7-F	BZT52C12TQ-7-F	BZT52C9V1TQ-7-F	BZX84C39Q-7-F	DDZ9681Q-7	DDZX5V1BQ-7
BAS16TWQ-13R-F	BZT52C13TQ-7-F	BZT585B12TQ-7	DDZ10CQ-7	DDZ9683Q-7	DZ23C12Q-7-F
BAS16WQ-7-F	BZT52C15SQ-7-F	BZT585B13TQ-7	DDZ12BQ-7	DDZ9685Q-7	DZ23C15Q-7-F
BAS28Q-13	BZT52C15TQ-7-F	BZT585B15TQ-13	DDZ12CQ-7	DDZ9686Q-7	MMBD4448HADWQ-7-F
BAS521Q-13	BZT52C16TQ-7-F	BZT585B15TQ-7	DDZ14Q-7	DDZ9688Q-7	MMBZ5234BQ-7-F
BAV70HDWQ-13	BZT52C18TQ-7-F	BZT585B16TQ-7	DDZ15Q-7	DDZ9690Q-7	MMBZ5237BQ-7-F
BAV70Q-13-F	BZT52C20TQ-7-F	BZT585B18TQ-7	DDZ16BQ-7	DDZ9691Q-13	MMBZ5248BQ-7-F
BAV70Q-7-F	BZT52C22TQ-7-F	BZT585B27TQ-7	DDZ16Q-7	DDZ9691Q-7	MMSZ5221BQ-7-F
BAV70WQ-7-F	BZT52C24TQ-7-F				

Table 3 – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1 st Fab’ and add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan) as additional wafer source					
AZ23C27Q-7-F	BZT52C18SQ-7-F	BZT52C3V9Q-7-F	BZT52C7V5SQ-7-F	BZX84C18Q-7-F	BZX84C3V6Q-7-F
BZT52C10Q-7-F	BZT52C20Q-7-F	BZT52C3V9SQ-7-F	BZT52C8V2Q-7-F	BZX84C20Q-13-F	BZX84C3V9Q-7-F
BZT52C10SQ-7-F	BZT52C20SQ-7-F	BZT52C4V3Q-7-F	BZT52C8V2SQ-7-F	BZX84C20Q-7-F	BZX84C4V3Q-7-F
BZT52C11Q-7-F	BZT52C22Q-7-F	BZT52C4V3SQ-7-F	BZT52C9V1Q-7-F	BZX84C22Q-13-F	BZX84C4V7Q-13-F
BZT52C11SQ-7-F	BZT52C24Q-7-F	BZT52C4V7Q-7-F	BZX84C10Q-13-F	BZX84C22Q-7-F	BZX84C4V7Q-7-F
BZT52C12Q-13-F	BZT52C24SQ-7-F	BZT52C4V7SQ-7-F	BZX84C10Q-7-F	BZX84C24Q-7-F	BZX84C5V1Q-13-F
BZT52C12Q-7-F	BZT52C27Q-7-F	BZT52C5V1Q-7-F	BZX84C12Q-13-F	BZX84C27Q-13-F	BZX84C5V1Q-7-F
BZT52C12SQ-7-F	BZT52C2V4Q-7-F	BZT52C5V1SQ-7-F	BZX84C12Q-7-F	BZX84C27Q-7-F	BZX84C5V6Q-13-F
BZT52C13Q-7-F	BZT52C2V7Q-7-F	BZT52C5V6Q-7-F	BZX84C13Q-7-F	BZX84C2V4Q-13-F	BZX84C5V6Q-7-F
BZT52C13SQ-7-F	BZT52C2V7SQ-7-F	BZT52C5V6SQ-7-F	BZX84C15Q-13-F	BZX84C2V4Q-7-F	BZX84C6V2Q-13-F
BZT52C15Q-7-F	BZT52C3V0SQ-7-F	BZT52C6V2Q-7-F	BZX84C15Q-7-F	BZX84C2V7Q-7-F	BZX84C6V2Q-7-F
BZT52C16Q-7-F	BZT52C3V3Q-7-F	BZT52C6V2SQ-7-F	BZX84C16Q-13-F	BZX84C3V0Q-7-F	BZX84C6V8Q-13-F
BZT52C16SQ-7-F	BZT52C3V3SQ-7-F	BZT52C6V8Q-7-F	BZX84C16Q-7-F	BZX84C3V3Q-7-F	BZX84C6V8Q-7-F
BZT52C18Q-7-F	BZT52C3V6SQ-7-F	BZT52C7V5Q-7-F	BZX84C18Q-13-F	BZX84C3V6Q-13-F	BZX84C7V5Q-13-F



Table 3 Cont. – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1 st Fab’ and add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan) as additional wafer source					
BZX84C7V5Q-7-F	DDZ9701Q-7	MMBZ5242BQ-7-F	MMSZ5226BQ-7-F	MMSZ5231BQ-7-F	MMSZ5240BQ-7-F
BZX84C8V2Q-13-F	MMBZ5221BQ-7-F	MMBZ5244BQ-7-F	MMSZ5227BQ-7-F	MMSZ5235BQ-7-F	MMSZ5241BQ-7-F
BZX84C8V2Q-7-F	MMBZ5223BQ-7-F	MMBZ5245BQ-7-F	MMSZ5228BQ-7-F	MMSZ5236BQ-7-F	MMSZ5242BQ-13-F
BZX84C9V1Q-13-F	MMBZ5227BQ-7-F	MMBZ5245BWQ-7-F	MMSZ5229BQ-13-F	MMSZ5237BQ-7-F	MMSZ5242BQ-7-F
BZX84C9V1Q-7-F	MMBZ5231BQ-7-F	MMBZ5246BQ-7-F	MMSZ5229BQ-7-F	MMSZ5238BQ-7-F	MMSZ5243BQ-7-F
DDZ9684Q-7	MMBZ5232BQ-7-F	MMSZ5223BQ-13-F	MMSZ5230BQ-13-F	MMSZ5239BQ-7-F	MMSZ5245BQ-13-F
DDZ9689Q-7	MMBZ5236BQ-7-F	MMSZ5223BQ-7-F	MMSZ5230BQ-7-F	MMSZ5240BQ-13-F	MMSZ5245BQ-7-F

Table 4 – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1 st Fab’, add Diodes internal JK FAB (formerly Lite-On Semiconductor Corp. in HsinChu, Taiwan) as additional wafer source, and Add Diodes internal CAT as additional A/T site					
BZT52C4V3TQ-7-F	BZT52C5V1TQ-7-F	BZT52C6V2TQ-13-F	BZT52C6V2TQ-7-F		

Table 5 – Change from 5” to 6” wafer diameter at Phenitec ‘1 st Fab’					
BC807-40Q-13-F	BC847BQ-7-F	BC857BQ-7-F	DCX124EUQ-7-F	DDTA114ECAQ-7-F	DDTC124EUAQ-7-F
BC807-40Q-7-F	BC847BSQ-7-F	BC857BSQ-7-F	DCX144EUQ-7-F	DDTA144ECAQ-13-F	DDTC143ZCAQ-13-F
BC817-40Q-13-F	BC847BVCQ-7	DCX114EUQ-13-F	DDA114TUQ-7-F	DDTC114ECAQ-13-F	DDTC143ZCAQ-7-F
BC817-40Q-7-F	BC847BVNQ-7	DCX114EUQ-13R-F	DDC114EUQ-13-F	DDTC114ECAQ-7-F	DDTC144ECAQ-13-F
BC846AQ-7-F	BC847CQ-7-F	DCX114EUQ-7-F	DDC114EUQ-7-F	DDTC114EUAQ-7-F	DDTC144ECAQ-7-F
BC846BQ-13-F	BC847CWQ-7-F	DCX114YUQ-13R-F	DDC114TUQ-7-F	DDTC114YCAQ-13-F	DDTC144EUAQ-13-F
BC846BQ-7-F	BC848CQ-7-F	DCX114YUQ-7-F	DDC114YUQ-13-F	DDTC114YCAQ-7-F	DDTC144EUAQ-7-F
BC846BWQ-7-F	BC856BQ-13-F	DCX123JUQ-7-F	DDC114YUQ-7-F	DDTC115EUAQ-7-F	MMBT5401Q-7-F
BC847AQ-7-F	BC856BQ-7-F	DCX124EUQ-13R-F	DDTA114ECAQ-13-F	DDTC123ECAQ-7-F	UMC4NQ-7

Table 6 – Removed

Table 7 – Add Diodes internal OFAB as additional wafer source					
AC817-40Q-7	AMBTA92Q-7	BC857CQ-7-F	MMDT2227Q-7-F	MMDT3904Q-7-F	MMDT4401Q-7-F
AC857CQ-7					

Table 8 – Add Diodes internal OFAB as additional wafer source and add Diodes internal CAT as additional A/T site					
AC847BWQ-13	AC857CWQ-7	BC847PNQ-7R-F	DDTC124TEQ-7-F	DZTA42Q-13	MMST2907AQ-7
AC847BWQ-7	BC817-16Q-7-F	BC856AQ-7-F	DMMT3904WQ-7-F	MMBTA42Q-7-F	MMST3904Q-7-F
AC847CWQ-7	BC846ASQ-7-F	BC856ASQ-7-F	DMMT3906WQ-7-F	MMDT2907AQ-7-F	MMST5401Q-7-F
AC857BQ-7	BC847BWQ-13-F	BC857BTQ-7	DZT5551Q-13	MMDT5401Q-7-F	MMSTA06Q-7-F
AC857BSQ-7	BC847PNQ-7-F	BC857BWQ-13-F			