



DATE: October 16, 2020

PCN #: 2462 - REV 2 – (Interim Update)

PCN Title: Phenitec Wafer Manufacturing Site Change, Additional Wafer Sources, Wafer Diameter Change, Additional Assembly and Test Site

Dear Customer:

This is an announcement of change(s) to products that are currently being offered by Diodes Incorporated.

We request that you acknowledge receipt of this notification within 30 days of the date of this PCN. If you require samples for evaluation purposes, please make a request within 30 days as well. Otherwise, samples may not be built prior to this change. Please refer to the implementation date of this change as it is stated in the attached PCN form. Please contact your local Diodes sales representative to acknowledge receipt of this PCN.

Previously agreed upon customer specific change process requirements or device specific requirements will be addressed separately.

For questions or clarification regarding this PCN, please contact your local Diodes sales representative.

Sincerely,

Diodes Incorporated PCN Team



PRODUCT CHANGE NOTICE

**PCN-2462 REV 2 –
INTERIM UPDATE**

Notification Date:	Implementation Date:	Product Family:	Change Type:	PCN #:
May 8, 2020	November 16, 2020	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				
DESCRIPTION OF CHANGE				
<p>REV 2: This interim update provides a partial listing of affected part numbers for which qualification is complete for the changes listed in the title of the tables below. Qualification / reliability reports are attached (embedded in this file).</p> <p>For other associated changes (identified in the Advance version (Rev 1) of PCN-2462 released May 8th, 2020) qualification testing is ongoing. Updates and qualification data will be provided in the Final version of this PCN. The Final version of this PCN is expected to be issued by January 31st, 2021, once all qualification has been completed.</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 products to ensure there is no change to device functionality or electrical specifications in the datasheet for products listed in the tables below.</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 Lite-On Semiconductor Corp. in HsinChu, Taiwan as additional wafer source4) Change in die size*5) Add Diodes internal CAT (Chengdu Assembly & Test) as additional A/T site using PdCu or bare Cu bond wire <p>Affected parts lists and corresponding changes are shown in the tables below.</p>				



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	
<ul style="list-style-type: none">• 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 Lite-On Semiconductor Corp. in HsinChu, Taiwan as additional wafer source• Table 4: Change from 5" to 6" wafer diameter at Phenitec '1st Fab'	
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 1 - Manufacturing site transfer from Phenitec's 'HQ Fab' to '1st Fab'

1N4448WSFQ-7	BZT52C16LPQ-7	BZT52C43Q-7-F	BZX84B27Q-7-F	BZX84C36Q-7-F	MMBT2907AQ-7-F
AZ23C27Q-7-F	BZT52C16Q-7-F	BZT52C47Q-7-F	BZX84B2V7Q-7-F	BZX84C43Q-7-F	MMBT3904Q-7-F
B0520LWQ-7-F	BZT52C16SQ-7-F	BZT52C4V7TQ-7-F	BZX84B30Q-7-F	BZX84C47Q-7-F	MMBT3906Q-7-F
BAS40-06Q-13-F	BZT52C16TQ-7-F	BZT52C51Q-7-F	BZX84B33Q-7-F	DDZ9692TQ-7	MMBT4401Q-13-F
BAS40Q-7-F	BZT52C18Q-7-F	BZT52C5V6TQ-7-F	BZX84B39Q-7-F	DFLT18AQ-7	MMBTA05Q-13-F
BAS70DW-05Q-7-F	BZT52C18SQ-7-F	BZT52C6V8TQ-7-F	BZX84B3V0Q-7-F	DFLT20AQ-7	MMBTA06Q-7-F
BAT54AQ-13	BZT52C18TQ-7-F	BZT52C7V5TQ-7-F	BZX84B3V3Q-7-F	DFLT22AQ-7	MMBTA92Q-7-F
BAT54AQ-7-F	BZT52C20Q-7-F	BZT52C8V2TQ-7-F	BZX84B4V3Q-7-F	DFLT40AQ-7	MMBZ5257BQ-7-F
BAT54AWQ-7-F	BZT52C20SQ-7-F	BZT52C9V1LPQ-7	BZX84B5V1Q-7-F	DFLT5V0AQ-7	MMSZ5232BQ-13-F
BAT54CQ-13	BZT52C20TQ-7-F	BZT52C9V1TQ-7-F	BZX84B5V6Q-13-F	DFLZ10Q-7	MMSZ5232BQ-7-F
BAT54CQ-7-F	BZT52C22Q-7-F	BZT585B15TQ-13	BZX84B5V6Q-7-F	DFLZ11Q-7	MMSZ5233BQ-13-F
BAT54CWQ-7-F	BZT52C22TQ-7-F	BZT585B15TQ-7	BZX84B6V8Q-7-F	DFLZ12Q-7	MMSZ5233BQ-7-F
BAT54Q-7-F	BZT52C24Q-7-F	BZT585B18TQ-7	BZX84B7V5Q-7-F	DFLZ13Q-7	MMSZ5234BQ-7-F
BAT54SDWQ-7-F	BZT52C24SQ-7-F	BZT585B2V4TQ-7	BZX84B8V2Q-7-F	DFLZ15Q-7*	MMSZ5246BQ-13-F
BAT54SQ-13	BZT52C24TQ-7-F	BZT585B36TQ-7	BZX84C16Q-13-F	DFLZ16Q-7	MMSZ5246BQ-7-F
BAT54SQ-7-F	BZT52C27Q-7-F	BZT585B3V6TQ-7	BZX84C16Q-7-F	DFLZ18Q-7	MMSZ5248BQ-13-F
BAT54SWQ-7-F	BZT52C2V0TQ-7-F	BZT585B3V9TQ-7	BZX84C18Q-13-F	DFLZ20Q-7	MMSZ5248BQ-7-F
BAT54WQ-13-F	BZT52C2V4TQ-7-F	BZT585B5V1TQ-7	BZX84C18Q-7-F	DFLZ22Q-7	MMSZ5250BQ-7-F
BAT54WQ-7-F	BZT52C30Q-7-F	BZT585B5V6TQ-7	BZX84C20Q-7-F	DFLZ24Q-7*	MMSZ5252BQ-7-F
BAT54WSQ-7-F	BZT52C30SQ-7-F	BZT585B6V2TQ-7	BZX84C22Q-13-F	DFLZ27Q-7	MMSZ5254BQ-13-F
BAV116HWFQ-7	BZT52C33Q-7-F	BZT585B6V8TQ-7	BZX84C22Q-7-F	DFLZ33Q-7	MMSZ5254BQ-7-F
BZT52C10TQ-7-F	BZT52C33SQ-7-F	BZT585B7V5TQ-7	BZX84C24Q-7-F	DFLZ36Q-7	MMSZ5255BQ-7-F
BZT52C11TQ-7-F	BZT52C36Q-7-F	BZX84B13Q-7-F	BZX84C27Q-13-F	DFLZ39Q-7	MMSZ5257BQ-7-F
BZT52C12TQ-7-F	BZT52C36SQ-7-F	BZX84B15Q-7-F	BZX84C27Q-7-F	DFLZ5V1Q-7	MMSZ5258BQ-13-F
BZT52C13LPQ-7	BZT52C36TQ-7-F	BZX84B16Q-7-F	BZX84C30Q-7-F	DFLZ5V6Q-7	MMSZ5258BQ-7-F
BZT52C13TQ-7-F	BZT52C39Q-7-F	BZX84B18Q-7-F	BZX84C33Q-13-F	DFLZ6V2Q-7	SDM20U30LPQ-7
BZT52C15LPQ-7	BZT52C3V0TQ-7-F	BZX84B20Q-7-F	BZX84C33Q-7-F	DFLZ8V2Q-7	SDM20U40Q-13
BZT52C15TQ-7-F	BZT52C3V3TQ-7-F	BZX84B24Q-7-F	BZX84C36Q-13-F	MMBT2222AQ-7-F	SDM20U40Q-7

Note: "***" change in die size



Table 2 – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1st Fab’, and add Diodes internal CAT as additional A/T site					
1N4148WTQ-7	DDZ12CQ-7	DDZ33Q-7	DDZ9683Q-7	DDZ9699Q-7	DDZ9714Q-7
AZ23C5V1Q-7-F	DDZ14Q-7	DDZ36Q-7	DDZ9685Q-7	DDZ9700Q-7	DDZ9V1BQ-7
BAS521Q-13	DDZ15Q-7	DDZ5V1BQ-7	DDZ9686Q-7	DDZ9702Q-7	DDZX12CQ-7
BZT52C15SQ-7-F	DDZ16BQ-7	DDZ5V6BQ-7	DDZ9688Q-7	DDZ9705Q-7	DZ23C12Q-7-F
BZT52C2V0SQ-7-F	DDZ16Q-7	DDZ6V2BQ-7	DDZ9690Q-7	DDZ9708Q-7	DZ23C15Q-7-F
BZT52C3V0Q-7-F	DDZ17Q-7	DDZ6V8BQ-7	DDZ9691Q-13	DDZ9709Q-7	MMBZ5237BQ-7-F
BZT52C9V1SQ-7-F	DDZ18CQ-7	DDZ8V2CQ-7	DDZ9691Q-7	DDZ9712Q-7	MMBZ5248BQ-7-F
DDZ10CQ-7	DDZ20CQ-7	DDZ9678Q-7	DDZ9693Q-7	DDZ9713Q-7	MMSZ5221BQ-7-F
DDZ12BQ-7	DDZ31Q-7	DDZ9681Q-7	DDZ9696Q-7		

Table 3 – Manufacturing site transfer from Phenitec’s ‘HQ Fab’ to ‘1st Fab’, and add Lite-On Semiconductor Corp. in HsinChu, Taiwan as additional wafer source					
BZT52C10Q-7-F	BZT52C3V9Q-7-F	BZT52C7V5Q-7-F	BZX84C3V3Q-7-F	BZX84C7V5Q-7-F	MMSZ5223BQ-13-F
BZT52C10SQ-7-F	BZT52C3V9SQ-7-F	BZT52C7V5SQ-7-F	BZX84C3V6Q-13-F	BZX84C8V2Q-13-F	MMSZ5223BQ-7-F
BZT52C11Q-7-F	BZT52C4V3SQ-7-F	BZT52C8V2Q-7-F	BZX84C3V6Q-7-F	BZX84C8V2Q-7-F	MMSZ5226BQ-7-F
BZT52C12Q-13-F	BZT52C4V3TQ-7-F	BZT52C8V2SQ-7-F	BZX84C3V9Q-7-F	BZX84C9V1Q-13-F	MMSZ5228BQ-7-F
BZT52C12Q-7-F	BZT52C4V7Q-7-F	BZT52C9V1Q-7-F	BZX84C4V3Q-7-F	BZX84C9V1Q-7-F	MMSZ5229BQ-13-F
BZT52C12SQ-7-F	BZT52C4V7SQ-7-F	BZX84C10Q-13-F	BZX84C4V7Q-13-F	DDZ9684Q-7	MMSZ5229BQ-7-F
BZT52C13Q-7-F	BZT52C5V1Q-7-F	BZX84C10Q-7-F	BZX84C4V7Q-7-F	DDZ9689Q-7	MMSZ5230BQ-13-F
BZT52C13SQ-7-F	BZT52C5V1SQ-7-F	BZX84C12Q-13-F	BZX84C5V1Q-13-F	DDZ9701Q-7	MMSZ5230BQ-7-F
BZT52C15Q-7-F	BZT52C5V1TQ-7-F	BZX84C12Q-7-F	BZX84C5V1Q-7-F	MMBZ5227BQ-7-F	MMSZ5231BQ-7-F
BZT52C2V4Q-7-F	BZT52C5V6Q-7-F	BZX84C13Q-7-F	BZX84C5V6Q-13-F	MMBZ5231BQ-7-F	MMSZ5237BQ-7-F
BZT52C2V7Q-7-F	BZT52C5V6SQ-7-F	BZX84C15Q-13-F	BZX84C5V6Q-7-F	MMBZ5232BQ-7-F	MMSZ5240BQ-13-F
BZT52C3V0SQ-7-F	BZT52C6V2Q-7-F	BZX84C15Q-7-F	BZX84C6V2Q-13-F	MMBZ5236BQ-7-F	MMSZ5240BQ-7-F
BZT52C3V3Q-7-F	BZT52C6V2SQ-7-F	BZX84C2V4Q-13-F	BZX84C6V2Q-7-F	MMBZ5242BQ-7-F	MMSZ5242BQ-13-F
BZT52C3V3SQ-7-F	BZT52C6V2TQ-13-F	BZX84C2V4Q-7-F	BZX84C6V8Q-13-F	MMBZ5244BQ-7-F	MMSZ5242BQ-7-F
BZT52C3V6Q-7-F	BZT52C6V2TQ-7-F	BZX84C2V7Q-7-F	BZX84C6V8Q-7-F	MMBZ5245BQ-7-F	MMSZ5243BQ-7-F
BZT52C3V6SQ-7-F	BZT52C6V8Q-7-F	BZX84C3V0Q-7-F	BZX84C7V5Q-13-F	MMBZ5245BWQ-7-F	MMSZ5245BQ-7-F

Table 4 – Change from 5” to 6” wafer diameter at Phenitec ‘1st Fab’					
BC807-40Q-13-F	BC847BQ-7-F	BC857BSQ-7-F	DCX144EUQ-7-F	DDTA114ECAQ-7-F	DDTC143ZCAQ-7-F
BC807-40Q-7-F	BC847BSQ-7-F	DCX114EUQ-13-F	DDA114TUQ-7-F	DDTA144ECAQ-13-F	DDTC144ECAQ-13-F
BC817-40Q-13-F	BC847BVCQ-7	DCX114EUQ-13R-F	DDC114EUQ-13-F	DDTC114ECAQ-13-F	DDTC144ECAQ-7-F
BC817-40Q-7-F	BC847BVNQ-7	DCX114EUQ-7-F	DDC114EUQ-7-F	DDTC114EUAQ-7-F	DDTC144EUAQ-13-F
BC846AQ-7-F	BC847CQ-7-F	DCX114YUQ-13R-F	DDC114TUQ-7-F	DDTC114YCAQ-13-F	DDTC144EUAQ-7-F
BC846BQ-13-F	BC856BQ-13-F	DCX114YUQ-7-F	DDC114YUQ-13-F	DDTC123ECAQ-7-F	MMBT5401Q-7-F
BC846BQ-7-F	BC856BQ-7-F	DCX124EUQ-13R-F	DDC114YUQ-7-F	DDTC124EUAQ-7-F	UMC4NQ-7
BC846BWQ-7-F	BC857BQ-7-F	DCX124EUQ-7-F	DDTA114ECAQ-13-F	DDTC143ZCAQ-13-F	