

Doc. No. : PCN221001 Date : Oct 24, 2022

C = Comchip Logo xxxxxx = Control code

### **To: Dear Valued Customers**

### **Product/Process Change Notice**

We hereby submit PCN for your review and approval.

Application or type :

Raw material changes of the silicon carbide power schottky diode.

xxxxxx = Control code

Detail of the change :

Change from 100mm to 150mm wafers for the manufacturing of 650V silicon carbide power schottky barrier diode.

Current :				After the change :			
Wa	Wafer : 100mm			Wafer : 150mm			
Example of markup code :				Example of markup code :			
Marking Code				Marking Code			
	Part Number Marking Code				Part Number	Marking Code	
	CDBDSC3650-G	DSC3650 G3S06503C		CDBDSC3650-G	DSC3650 G3S06503C		
						G3S06504C	
							]

Reason for the change :

C = Comchip Logo

Added a 150mm wafer fab and synchronously change from 100mm to 150mm wafers for the manufacturing of 650V silicon carbide power schottky barrier diode. The change can increase the production capacity and ensure the continued ability of supply.

Full electrical characterization and high reliability testing have been completed to ensure there is no change to device function or electrical specifications in the datasheet.

Reliability reports as attached file.



Evaluation items :

Part No.	Package Type	Current marking code	Marking code after change
CDBD2SC21200-G	TO-263/D2PAK	G3S12002D	G5S12002D
CDBDSC3650-G	TO-252/D-PAK	G3S06503C	G3S06504C
CDBDSC51200-G	TO-252/D-PAK	G3S12005C	G5S12005C
CDBDSC5650-G	TO-252/D-PAK	G3S06505C	G3S06506C
CDBJFSC101200-G	TO-220F	G3S12010H	G5S12010H
CDBJFSC3650-G	TO-220F	G3S06503H	G3S06504H
CDBJFSC5650-G	TO-220F	G3S06505H	G3S06506H
CDBJSC3650-G	TO-220-2	G3S06503A	G3S06504A
CDBJSC5650-G	TO-220-2	G3S06505A	G3S06506A

Implemented from  $\vdots$ 

Effective immediately.

R&D Dept. Signature :

QA Dept. Signature :

Kein Tseng

### **Answer To PCN**

Please complete the form below duly signed and fax back to Comchip Technology Co.

Please select your answer	Date				
1. Approved this PCN					
2. Approved this PCN with conditions 3. Disapproved this PCN	Responsibility By				
5. Disapproved uns r Civ					
Please specify the condition or explain the reason if you select 2 or 3.					

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



# **Reliability Test Report**

Part NO.: Part No. affected Diodes

Doc. No. PCN221001

Date: 2022.10.04

ComChip Technology Co., Ltd.

Add. : No. 586, Jianguo Rd., Yingge Dist., New Taipei City 23943, Taiwan

Tel.: 886-2-8677-6675

QR-0803-02 Rev.G

## Comchip Technology Co., Ltd.



### **Reliability Test Summary**

#### P / N : Part No. affected

Doc. No. : PCN221001

No	Test Item	Test Condition	Test Foundation	Failure qty'	S.S	Test Results
1	Temperature Cycle	Low Tstg to High Tstg dwelled for 30 min and transfer time not exceed 1 min; 20 cycles	MIL-STD-750 Method 1051	0	22	PASS
2	High Temperature Reverse Bias Life	VR= VR*80% Temp.(depend on product) Time 168hrs.	MIL-STD-750 Method 1038	0	22	PASS
3	Intermittent Forward Operation Life	ton/toff= 2 min ∆Tj = 100°C 2520 cycles	MIL-STD-750 Method 1036	0	22	PASS
4	Pressure Cooker Test	Ta= 121℃ Pressure= 15 Psi Time= 4 hrs	JESD 22-A102	0	22	PASS
5	High Temperature Storage Life	Ta= High Tstg. Time= 168 hrs	MIL-STD-750 Method 1031	0	22	PASS
6	Humidity	Ta= 85 ℃ RH= 85% Time=168 hrs	EIAJ ED-4701	0	22	PASS

Conclusion:

1.共有6項實驗

2.測試結果: PASS

Approval: Zeus Lai

Prepare: Judy Lin