



Date: Apr 04, 2023

PCN No#: 040423-1

PCN Title: Qualified Additional Wafer Source for MURB10120C-TP

Dear Customer:

This is an announcement of change(s) to products that are currently being offered by Micro Commercial Components Corp(MCC) .We request that you acknowledge receipt of this notification within 30 days of the date of this PCN. Please refer to the implementation date of this change as it is stated in the attached PCN form. Please contact your local sales representative to acknowledge receipt of this PCN.

If you have any questions about PCN's products, please contact your local sales representative.

Sincerely,

MCC PCN Team

PRODUCT CHANGE NOTICE

Notification Date	Implementation Date	Change Type	Classification	PCN No
Apr 04, 2023	ASAP	Additional Wafer Source	Major	040423-1
TITLE				
Qualification of Additional Wafer Source for MURB10120C-TP				
DESCRIPTION OF CHANGE				
This PCN is being issued to notify customers that in order to assure continuity of supply, MCC has qualified a new wafer source for MURB10120C-TP. Full electrical characterization and reliability testing has been completed and the result showed that the parts had the same performances as the parts we shipped before.				
IMPACT				
No change in datasheet electrical parameters and product performance. Table A: Comparison of Die Table B: Comparison of Test Data				
PRODUCTS AFFECTED				
MURB10120C-TP				
WEB LINKS				
Terms And Conditions:	https://www.mccsemi.com/Home/TermsAndConditions			
For More Information Contact:	https://www.mccsemi.com/Contact/Index			
Products:	https://www.mccsemi.com/ProductCategories			
DISCLAIMER				
Unless a MCC 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 A - Comparison of Die

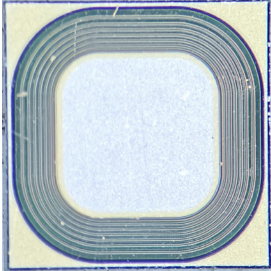
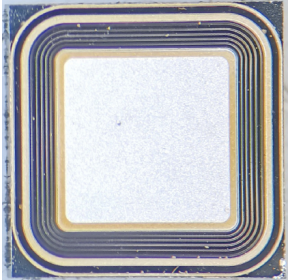
	Current Die	New Die
Die Appearance		
Die Size	98mil*98mil	102mil*102mil

Table B - Comparison of Test Data

Micro Commercial Components Corp.

Comparison of test data - MURB10120C-TP

TEST DATA AS BELOW:

S.S.=50pcs

SAMPLE	Current Die Test Data				New Die Test Data			
	VF(V) @ IF=10A<2.4V	VR(V) @ IR=0.01mA>1200V	IR(uA) @ VR=1200V<10uA	ttr(ns) @ RG-1<75ns	VF(V) @ IF=10A<2.4V	VR(V) @ IR=0.01mA>1200V	IR(uA) @ VR=1200V<10uA	ttr(ns) @ RG-1<75ns
1	1.911	1237.8	0.030	47	1.940	1340.8	0.025	44
2	1.908	1244.5	0.033	47	1.876	1340.2	0.030	44
3	1.911	1237.8	0.034	47	1.898	1333.5	0.039	44
4	1.910	1237.8	0.025	47	1.965	1334.7	0.030	44
5	1.909	1238.1	0.029	47	1.891	1333.5	0.030	44
6	1.914	1236.6	0.024	47	1.794	1333.5	0.025	44
7	1.929	1235.6	0.026	47	1.836	1330.8	0.026	44
8	1.926	1238.7	0.026	47	1.858	1330.5	0.035	44
9	1.941	1240.8	0.024	47	1.789	1325.3	0.034	44
10	1.950	1244.5	0.031	47	1.859	1331.1	0.041	44
11	1.909	1237.2	0.032	47	1.800	1330.2	0.043	44
12	1.902	1235.6	0.025	47	1.911	1330.2	0.033	44
13	1.907	1235.0	0.030	47	1.931	1330.8	0.036	44
14	1.899	1236.9	0.027	47	1.880	1330.2	0.037	44
15	1.913	1235.6	0.024	47	1.919	1331.1	0.031	44
16	1.914	1235.0	0.043	47	1.870	1331.4	0.045	44
17	1.925	1237.2	0.042	47	1.897	1332.6	0.050	44
18	1.935	1237.2	0.034	47	1.951	1335.0	0.033	44
19	1.941	1236.6	0.027	47	2.002	1333.5	0.033	44
20	1.894	1239.3	0.042	47	1.886	1330.2	0.046	44
21	1.906	1242.0	0.047	47	1.815	1328.3	0.041	44
22	1.942	1245.1	0.035	47	1.885	1326.5	0.034	44
23	1.937	1245.7	0.035	47	1.798	1324.7	0.037	44
24	1.938	1244.8	0.035	47	1.731	1317.0	0.039	44
25	1.942	1243.3	0.031	47	1.857	1331.1	0.028	44
26	1.931	1239.0	0.025	47	1.807	1330.2	0.032	44
27	1.911	1236.6	0.037	47	1.902	1330.2	0.036	44
28	1.912	1236.0	0.025	47	1.867	1332.0	0.033	44
29	1.906	1235.3	0.034	47	1.709	1330.5	0.037	44
30	1.939	1233.2	0.035	47	1.893	1331.7	0.037	44
31	1.915	1232.0	0.038	47	2.067	1342.0	0.035	44
32	1.911	1231.7	0.032	47	2.067	1342.7	0.039	44
33	1.947	1233.8	0.028	47	2.116	1341.7	0.032	44
34	1.948	1236.9	0.029	47	2.079	1341.4	0.037	44
35	1.927	1236.3	0.032	47	2.080	1341.4	0.037	44
36	1.919	1235.6	0.141	47	2.040	1339.6	0.148	44
37	1.917	1236.9	0.025	47	1.996	1339.3	0.039	44
38	1.912	1237.5	0.042	47	1.972	1338.4	0.038	44
39	1.915	1237.5	0.033	47	1.967	1337.2	0.036	44
40	1.905	1240.5	0.037	47	1.982	1338.1	0.041	44
41	1.907	1239.3	0.033	47	1.935	1339.3	0.034	44
42	1.900	1239.6	0.034	47	1.879	1336.9	0.031	44
43	1.915	1239.3	0.046	47	1.662	1329.2	0.042	44
44	1.911	1240.2	0.035	47	1.683	1329.8	0.037	44
45	1.921	1238.4	0.035	47	1.777	1330.5	0.037	44
46	1.925	1240.2	0.041	47	1.843	1332.6	0.038	44
47	1.930	1240.5	0.042	47	1.836	1332.6	0.036	44
48	1.950	1243.3	0.046	47	1.789	1333.2	0.043	44
49	1.907	1238.7	0.055	47	1.940	1337.8	0.050	44
50	1.905	1237.8	0.043	47	1.871	1335.9	0.044	44
Max	1.950	1245.7	0.141	47	2.116	1342.7	0.148	44
Min	1.894	1231.7	0.024	47	1.662	1317.0	0.025	44
Avg	1.920	1238.3	0.036	47	1.892	1333.4	0.039	44

Reliability Report

Part Number: MURB10120C-TP

Date: 2023-1-15

Test Results

Test Item	Conditions	Duration	Quantity	Rejects
TEST Pre- and Post-Stress Electrical Test	T _a = 25 °C	N/A	all parts	see below
Pre-conditioning	JESD22A-113 1. Temperature Cycling: -40 °C ~ 60 °C, 2. Bake: 125 °C, 3. Moisture Soak: 85 ± 2 °C, 85 ± 5%; 4. Reflow * 3 Cycles: 260 °C, Time 5-60 Min	5 Cycles; 24 hours; 168 hours 3 Cycles	308Pcs	0
HTRB High Temperature Reverse Bias	MIL-STD-750 Method 1038 T _j = T _{jmax} , 80% VR	1000 hours	77Pcs	0
TC Temperature Cycling	JESD22-A104 -55 °C (+0, -10)/15Min ~ 150(+15, -0)/15Min, 1000Cycles	1000 Cycles (500 hours)	77Pcs	0
AC Autoclave	JESD22-A102 T _a = 121 °C ± 2 °C, RH = 100 %, 15psig	96 hours	77Pcs	0
H3TRB High Humidity High Temperature Reverse Bias	JESD22-A101 T _a = 85 °C ± 2 °C, RH = 85% ± 5%, 80 % VR (VR MAX=100V)	1000 hours	77Pcs	0
IOL Intermittent Operating Life	MIL-STD-750 Method 1037 ON 2Min/OFF 2min, devices powered to insure ΔT _j ≥ 100 °C for 15000 cycles	15000 Cycles (1000 hours)	77Pcs	0
RSH Resistance to Solder Heat	JESD22-B106 260 °C (+5, -0)	10 s	30Pcs	0
SD Solderability	J-STD-002 235 °C ± 5 °C	3 s	10Pcs	0
HTSL High Temperature Storage Life	JESD22-A103 T _{stgMax}	1000 hours	77Pcs	0